# CANDIDATE ASSESSMENT REPORT
# SUNLAND CHANNEL

## Supplementary Report

*Prepared for:*

FLOOD CONTROL DISTRICT
OF MARICOPA COUNTY
2801 WEST DURANGO STREET
PHOENIX, ARIZONA 85009

Contract FCD 2004C027

*Prepared by*

Aspen
Consulting Engineers

426 NORTH 44TH STREET, SUITE 370
PHOENIX, ARIZONA 85008

November 2006

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1***************************************                                                  ***************************************
 *                                     *                                                  *                                     *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                                  *   U.S. ARMY CORPS OF ENGINEERS      *
 *              JUN   1998              *                                                  *   HYDROLOGIC ENGINEERING CENTER     *
 *            VERSION 4.1               *                                                  *       609 SECOND STREET             *
 *                                     *                                                  *     DAVIS, CALIFORNIA 95616         *
 *  RUN DATE   19OCT06  TIME  15:05:40  *                                                  *        (916) 756-1104               *
 *                                     *                                                  *                                     *
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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

1                                    HEC-1 INPUT                                               PAGE  1

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

    1         ID   REC6DRCH.DAT
    2         ID   SEPTEMBER 2006
    3         ID   100-YEAR 6-HOUR
    4         ID   THIS REVISION MODIFIES THE FOLLOWING SUBBASINS:
    5         ID   Sub-basin JB2 TO routing RTEEEA REMOVED due to Tres Rios Project.
    6         ID   Subbasin EA:  Reduced area by 73% due to Tres Rios Project.
    7         ID   Changed retention volume to reflect reduced drainage area.
    8         ID   Subbasins CC, DD, DC, and EA: assumed medium density development for
    9         ID   all future development.
   10         ID   Routings DDCC and EADC: existing conditions routing used
   11         ID   insted of the proposed Sunland Channel routing.
   12         ID   Smaller Sunland Channel used to route CCSC and DCCC.
   13         ID   Moved subbasin DD to route to CPDC.
   14         ID   Hard coded contributing area in HC cards for ~CPCC, ~CPDC, and CPEA
   15         ID   due to Tres Rios diversion.
   16         ID   Diverted flow from subbasins EA, DD, CC, and DC to model 100-YR 6-HR
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  17          ID   future development retention.
  18          ID   by Aspen Consulting Engineers
              * *****************************************************************
              * The following is the Aspen revised model for the DRCC.
              * *****************************************************************
  19          ID   REC6FINAL.DAT
  20          ID   ASPEN CONSULTING ENGINEERS, JCS and POL, JANUARY 25, 2006
  21          ID   6-HOUR RAINFALL
  22          ID   DURANGO REGIONAL CONVEYANCE CHANNEL AND SUNLAND CHANNEL
  23          ID   AVONDALE AND PHOENIX ARIZONA
  24          ID   THIS HEC-1 MODEL IS THE SAME AS THE REC6.DAT MODEL FOR THE SAME AREA,
  25          ID   DATED NOVEMBER 9, 2005 AND DELIVERED TO THE FCDMC ON DECEMBER 23, 2005,
  26          ID   WITH THE FOLLOWING CHANGES:
  27          ID   1.  ROUTING AT KKMCJCJB (75TH AVENUE TO 83RD AVENUE) MODIFIED TO
  28          ID       ROUTE OVER DETENTION BASINS IN DRCC ALIGNMENT (THESE RETENTION BASINS
  29          ID       FOR LOCAL SUBDIVISIONS ASSUMED TO BE CONVERTED TO FLOW-THROUGH
  30          ID       BY NEW CULVERT IN 83RD AVENUE AT DRCC ALIGNMENT)
  31          ID   2.  MODIFIED PULS ROUTING AT RRJB1 (83RD AVENUE) MODIFIED TO CONFORM TO
  32          ID       UPDATED CULVERT SIZE AND FIELD MEASUREMENTS OF RETENTION BASIN CAPACITY
  33          ID       UPSTREAM OF 83RD AVENUE
  34          ID   3.  KKRJBED1 AND KKRJBED2 ROUTING ADDED TO ROUTE FLOW FROM 83RD TO 91ST.
  35          ID       THIS IS 8-POINT CROSS SECTION ROUTING OVER EXISTING SUBDIVISION RETENTION
  36          ID   4.  RETENTION FOR SUBBASIN ED1 IS MODIFIED TO ACCOUNT FOR A PORTION OF THE
  37          ID       100-YEAR 2-HOUR RETENTION REMAINING AFTER CONSTRUCTION OF A 10-YEAR
  38          ID       CULVERT AT 91ST AVENUE.  THAT PORTION OF THE RETENTION UPSTREAM OF AN
  39          ID       IRRIGATION CANAL LOCATED AT THE HALFWAY POINT OF THIS BASIN IS ASSUMED TO
  40          ID       REMAIN IN PLACE.  THE REST IS ASSUMED TO BE CONVERTED TO DETENTION BY
  41          ID       CONSTRUCTION OF A CULVERT AT 91ST AVENUE.
  42          ID   5.  RETENTION FOR SUBBASIN ED2 IS MODIFIED TO ASSUME 100-YEAR, 2-HOUR
  43          ID       RETENTION WILL REMAIN IN PLACE AFTER CONSTRUCTION OF A CULVERT AT
  44          ID       91ST AVENUE.
  45          ID   6.  DETENTION AT KKRRED IN DRCC ALIGNMENT AT 91ST AVENUE IS REVISED TO
  46          ID       REFLECT MODIFIED BOX CULVERT AND FIELD MEASUREMENTS OF EXISTING
  47          ID       RETENTION BASIN UPSTREAM OF 91ST AVENUE
  48          ID   7.  ROUTING USING 8-POINT CROSS SECTION ADDED FOR FLOW ALONG DRCC ALIGNMENT
  49          ID       FROM 91ST AVENUE TO 107TH AVENUE.  THIS IS KKRT95, WHICH TAKES THE FLOW
  50          ID       91ST TO THE 95TH BASIN, KKRT99, WHICH TAKES THE FLOW FROM 95TH BASIN
  51          ID       TO 99TH, AND KKRT107, WHICH TAKES THE FLOW FROM 99TH TO 107TH.  THE ROUTI
  52          ID       CHANNEL IS AN EXISTING CHANNNEL WITH 20-FOOT BOTTOM WIDTH, DEPTH
1                                    HEC-1 INPUT                                       PAGE  2

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

  53          ID       APPROXIMATELY 7 FEET, AND TOP WIDTH APPROXIMATELY 65 FEET.  UNDER CURRENT
  54          ID       CONDITIONS THIS CHANNEL ENDS APPROXIMATELY 1300 FEET UPSTREAM OF 107TH.
  55          ID   8.  AN IN-LINE DETENTION BASIN IS PLACED SOUTH OF THE DRCC ALIGNMENT JUST
  56          ID       DOWNSTREAM OF 95TH AVENUE.  THIS IS KK95BASIN
  57          ID   9.  SINCE BREACHING EXISTING RETENTION BASINS IS UNLIKELY, SUBBASINS ID1 AND
  58          ID       ID2 ARE ASSUMED TO HAVE 100-YEAR 2-HOUR RETENTION
  59          ID   10. THE MODIFIED PULS ROUTING AT 99TH (KK RRID1)IS MODIFIED TO REFLECT THE
  60          ID       EXISTING BOX CULVERT AND CHANNEL AT THAT
  61          ID       LOCATION
  62          ID   11. THE MODIFIED PULS ROUTING AT 107TH (KK  RRIB) IS MODIFIED TO REFLECT
  63          ID       A REVISED BOX CULVERT AT THAT LOCATION, AS WELL AS REVISED CHANNEL
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  64          ID   12. THE OFFLINE DETENTION BASIN AT 99TH AVENUE IS REMOVED.
              *DIAGRAM
              * MODIFIED IT CARD FOR DSS RUN  SLT
              * IT      5            1200    2000
  65          IT        5 09MAR95    1200    2000
  66          IO        5
  67          IN       15
              *
  68          JD     3.23     0.01
  69          PC    0.000    0.008   0.016   0.025   0.033   0.041   0.050   0.058   0.066   0.074
  70          PC    0.087    0.099   0.118   0.138   0.216   0.377   0.834   0.911   0.931   0.950
  71          PC    0.962    0.972   0.983   0.991   1.000
  72          JD    3.209     0.50
  73          JD    3.149     2.80
  74          PC    0.000    0.009   0.016   0.025   0.034   0.042   0.051   0.059   0.067   0.076
  75          PC    0.087    0.100   0.120   0.163   0.252   0.451   0.694   0.837   0.900   0.938
  76          PC    0.950    0.963   0.975   0.988   1.000
  77          JD    2.978     16.0
  78          PC    0.000    0.009   0.020   0.030   0.048   0.063   0.076   0.090   0.105   0.119
  79          PC    0.135    0.152   0.175   0.222   0.304   0.472   0.670   0.796   0.868   0.912
  80          PC    0.946    0.960   0.973   0.987   1.000
  81          JD    2.623     90.0
  82          PC    0.000    0.021   0.035   0.051   0.071   0.087   0.105   0.125   0.143   0.160
  83          PC    0.179    0.201   0.232   0.281   0.364   0.500   0.658   0.773   0.841   0.888
  84          PC    0.927    0.945   0.964   0.982   1.000
  85          JD    1.841    500.0
  86          PC    0.000    0.024   0.043   0.059   0.078   0.098   0.119   0.141   0.162   0.186
  87          PC    0.212    0.239   0.271   0.321   0.408   0.515   0.627   0.735   0.814   0.864
  88          PC    0.907    0.930   0.954   0.977   1.000
              *

  89          KK    SUBWD    BASIN
  90          KM     VALLEY S-GRAPH WAS USED FOR THIS BASIN
  91          BA    0.393
  92          LG     0.20     0.19    7.00    0.17      12
  93          UI       32       42     116     157     189     226     281     403     348     281
  94          UI      240      193     156     115      65      54      42      32      17      10
  95          UI       10       10      10       9       0       0       0       0       0       0
  96          UI        0        0       0       0       0       0       0       0       0       0
              *
1                                      HEC-1 INPUT                                                PAGE  3

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


  97          KK   RTWDXA    ROUTE   REACH
  98          KM        ROUTE FLOW FROM WD TO XA (ALONG 27TH AVENUE).
  99          KM        TYPE C CHANNEL
 100          RS        4               -1       0
 101          RC    0.025    0.025   0.025    2500  0.0016    0.00
 102          RX      0.0    100.0   400.0   500.0   500.1   600.0   900.0  1000.0
 103          RY      5.0      4.0     1.0     0.0     0.0     1.0     4.0     5.0
              *
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104   KK   SUBXA   BASIN
105   KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN
106   BA   0.247
107   LG    0.13    0.15    9.70    0.06      44
108   UI      34     125     193     268     417     308     225     157      74      48
109   UI      29      10      11      11       0       0       0       0       0       0
110   UI       0       0       0       0       0       0       0       0       0       0
      *

111   KK   CPXA1
112   KM   ADD HYDROGRAPHS AT XA
113   HC       2
      *
      * KK  RSXA
      * KM MODIFIED PULS ROUTING THROUGH PONDING BEHIND SPRR.
      * RS     1    STOR       0       0
      * SV   .01     .07     1.0     5.1    14.0    28.5    50.0    79.1   117.4   165
      * SE1063.3  1063.5  1063.6  1064.1  1064.6  1065.1  1065.6  1066.1  1066.6  1067
      * SQ     0      15      43     455    1751    3879    6999   11192   17236   253
      *

114   KK   DIXAO
115   KM   DIVERT FLOW FROM XA SOUTHWARD OVER SPRR AND OUT OF MODEL
116   DT   DIZZ1
117   DI       0       0      43     455    1751    3879    6999   11192   17236   25382
118   DQ       0       0       0       0       0       0       0      44     960    3141
      *

119   KK  RTXAWC   ROUTE   REACH
120   KM        ROUTE FLOW FROM XA TO WC (ALONG SPRR).
121   KM        TYPE C CHANNEL
122   RS      12              -1       0
123   RC   0.035   0.035   0.035    5100  0.0016    0.00
124   RX     0.0    20.0    35.0    50.0    50.1   250.0   450.0   550.0
125   RY     5.0     5.0     2.5     0.0     0.0     2.0     4.0     5.0
      *

126   KK   SUBWB   BASIN
127   KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN
128   BA   0.667
129   LG    0.16    0.15    9.70    0.06      36
130   UI      60     103     240     316     391     474     689     701     538     442
131   UI     358     278     177     107      94      61      41      19      18      19
132   UI      19      18       0       0       0       0       0       0       0       0
133   UI       0       0       0       0       0       0       0       0       0       0
      *
1                                   HEC-1 INPUT                                      PAGE  4

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

134   KK  RTWBWC   ROUTE   REACH
135   KM        ROUTE FLOW FROM WB TO WC (ALONG 35TH AVENUE).
136   KM        TYPE C CHANNEL
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137          RS      3            -1       0
138          RC  0.025   0.025   0.025    2500  0.0020    0.00
139          RX    0.0   100.0   400.0   500.0   500.1   600.0   900.0  1000.0
140          RY    5.0     4.0     1.0     0.0     0.0     1.0     4.0     5.0
             *

141          KK  SUBWC  BASIN
142          KM   VALLEY S-GRAPH WAS USED FOR THIS BASIN
143          BA  0.487
144          LG   0.16    0.16    9.70    0.06      43
145          UI     46      90     195     255     315     404     581     477     377     302
146          UI    240     167      90      78      48      36      14      15      14      14
147          UI      0       0       0       0       0       0       0       0       0       0
             *

148          KK   CPWC
149          KM   ADD HYDROGRAPHS AT WC.
150          HC      3
             *
             * KK  RSWC
             * KM MODIFIED PULS ROUTING THROUGH PONDING BEHIND SPRR.
             * KM Revised SV-SQ records to reflect new weir analysis based on survey. 03.15.0
             * KO      1
             * RS      1    STOR       0       0
             * SV  16.1    27.6    44.0    65.2    90.7   121.5   159.6   206.8   263.7   329
             * SE1057.1  1057.6  1058.1  1058.6  1059.1  1059.6  1060.1  1060.6  1061.1  1061
             * SQ      0      34     456    1381    2859    4933    7982   12958   19919   288
             *

151          KK  DIWCWA
152          KM   DIVERT FLOW FROM WC TO QE
153          KM   Revised DQ records to reflect new weir analysis based on survey. 05.4.00 JEP
154          DT    DIQE
155          DI      0      34     456    1381    2859    4933    7982   12958   19919   28835
156          DQ      0       0       0       0       0       0     141    1221    3463    6954
             *
             * KKDIWCQE
             * KM DIVERT FLOW FROM WC TO QE
             * DT  DIQE
             * DI      0     115     608    1579    3086    5253    8972   15024   23745   350
             * DQ      0       0       0       0       0      40     951    3350    7104   121
             *

157          KK  RTWCWA
158          KM   HEC-RAS REACH
159          KM        ROUTE FLOW FROM WC TO WA (ALONG SPRR).
160          KM        Channel geometry changed to match natural conditions 04.11.00  JEP
161          KM        Manning's N values changed to match approved values 04.11.00  JEP
162          KM        Method changed from Normal Depth Storage to Modified Puls 05.25.00 JEP
163          KM        Stage-storage values are based on HEC-2 analysis results 06.19.00 JEP
164          KM        Values transferred directly from HEC-2 file: Tape7_1 09.29.00 JEP
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165          RS      15   STOR       0       0
166          SV       0    103     168     242     267     296     317     332     338     354
167          SV     375
168          SQ       0    200     400     800    1000    1200    1400    1600    1700    1900
169          SQ    2200
             * RC  .129   .129    .129    4850   .0010
             * RX     0     40     200     410     870    1240    1700    2160
             * RY   4.4    3.8       0     1.6       0     1.8     2.8     4.4
             *
             *

170          KK   SUBWA   BASIN
171          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN
172          BA   0.492
173          LG    0.15   0.15   10.10    0.05      43
174          UI      75    302     455     683     855     573     402     209     117      67
175          UI      23     23      23       0       0       0       0       0       0       0
176          UI       0      0       0       0       0       0       0       0       0       0
             *

177          KK   CPWA1
178          KM    ADD HYDROGRAPH SUBWA TO RTWCWA
179          HC       2
             *

180          KK   SUBVD   BASIN
181          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN
182          BA   0.697
183          LG    0.16   0.16    9.70    0.06      36
184          UI      63    108     251     330     408     495     720     733     562     461
185          UI     375    291     185     112      98      63      44      19      20      19
186          UI      20     19       0       0       0       0       0       0       0       0
187          UI       0      0       0       0       0       0       0       0       0       0
             *

188          KK  RTVDWA   ROUTE   REACH
189          KM        ROUTE FLOW FROM VD TO WA (ALONG 43RD AVENUE).
190          KM        FUTURE ARTERIAL SECTION
191          RS       1             -1       0
192          RC   0.100  0.023   0.100    2500  0.0030    0.00
193          RX     0.0    440     445   445.1   575.1   575.2     900  1000.0
194          RY     105    105     105   99.75   99.75     105     105     105
             *

195          KK   CPWA2
196          KM    ADD HYDROGRAPHS FROM SUBWA AND RTWCWA TO RTVDWA.
197          HC       2
             *
             * KK  RSWA
             * KM MODIFIED PULS ROUTING THROUGH PONDING BEHIND SPRR.
             * KM Revised SV-SQ records to reflect new weir analysis based on survey. 03.15.0
             * KO     1
             * RS     1   STOR       0       0
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                  * SV   1.3     1.9     2.4     3.1     4.0     8.5    16.7    29.9    48.5     74
                  * SE1050.7  1050.9  1051.1  1051.3  1051.4  1051.9  1052.4  1052.9  1053.4   1053
                  * SQ     0       0       0       0       0      77     562    1532    3131     53
                  *
1                                            HEC-1 INPUT                                              PAGE  6

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


  198             KK  DIWAVC
  199             KM        DIVERT FLOW FROM WA TO QD OVER SPRR
  200             KM   Revised DQ records to reflect new weir analysis based on survey. 05.4.00 JEP
  201             KM   Revised DQ records based on HEC-2 analysis results.  06.28.00 JEP
  202             DT    DIQD
  203             DI       0     200     400     800    1000    1200    1400    1600    1700    1900
  204             DQ       0       0      42     369     555     746     942    1140    1174    1370
                  *
                  * KKDIVCQD
                  * KM DIVERT FLOW FROM VC TO QD OVER SPRR
                  * DT  DIQD
                  * DI     0     810    9237   10710
                  * DQ     0       0       0      63
                  *

  205             KK  RTWAVC
  206             KM   HEC-RAS REACH
  207             KM        MODIFIED PULS ROUTE FLOW FROM WA TO VC (ALONG SPRR).
                  * KM      Channel geometry changed to match natural conditions 04.11.00  JEP
  208             KM        Manning's N values changed to match approved values 04.11.00  JEP
  209             KM        Method changed from Normal Depth Storage to Modified Puls 05.22.00 JEP
  210             KM        Stage-Storage values based on HEC-2 analysis results.  06.19.00 JEP
  211             KM        Values transferred directly from HEC-2 file:  Tape7_2  9.29.00 JEP
  212             RS      15    STOR       0       0
  213             SV       0     146     178     193     201     208     212
  214             SQ       0     400     600     800     989    1247    1487
                  * RC  .317    .317    .317    5270   .0005
                  * RX     0      50     120     390     810     950    1400    1700
                  * RY   6.8       0       0     1.8     2.8     3.8     5.1     6.8
                  *

  215             KK   SUBVC   BASIN
  216             KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN
  217             BA   0.490
  218             LG    0.12    0.16    8.40    0.10      50
  219             UI      75     300     454     680     852     570     400     209     116      67
  220             UI      23      23      23       0       0       0       0       0       0       0
  221             UI       0       0       0       0       0       0       0       0       0       0
                  *

  222             KK   CPVC1
  223             KM    ADD HYDROGRAPH SUBVC TO RTWAVC.
  224             HC       2
                  *
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 225          KK   SUBVB   BASIN
 226          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN
 227          BA   0.720
 228          LG    0.15    0.17    9.70    0.06      45
 229          UI     121     489     718    1162    1201     810     529     243     146      66
 230          UI      36      36       0       0       0       0       0       0       0       0
 231          UI       0       0       0       0       0       0       0       0       0       0
              *
1                                        HEC-1 INPUT                                          PAGE  7

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


 232          KK  RTVBVC   ROUTE   REACH
 233          KM        ROUTE FLOW FROM VB TO VC (ALONG 51ST AVENUE).
 234          KM        FUTURE ARTERIAL SECTION
 235          RS       1              -1       0
 236          RC   0.100   0.023   0.100    2500  0.0017    0.00
 237          RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
 238          RY     105     105     105   99.75   99.75     105     105     105
              *

 239          KK   CPVC2
 240          KM    ADD HYDROGRAPHS FROM SUBVC AND RTWAVC TO RTVBVC.
 241          HC       2
              *
              * KK  RSVC
              * KM MODIFIED PULS ROUTING THROUGH PONDING BEHIND SPRR.
              * KM Revised SV-SQ records to reflect new weir analysis based on survey. 03.15.0
              * KO      1
              * RS      1    STOR       0       0
              * SV    70      83      97     113     121     170     192     216     284      3
              * SE1051.4  1051.6  1051.8  1052.0  1052.1  1052.6  1052.8  1053.0  1053.3  1053
              * SQ    16     246     746    1537    2048    5354    7033    8943   12315    147
              *

 242          KK  DIVCQA
 243          KM   DIVERT FLOW FROM VC TO VA OVER 51st AVE.
 244          KM   Revised DQ records to reflect new weir analysis based on survey. 05.4.00 JEP
 245          KM   Revised DQ records based on HEC-2 analysis results.  06.19.00 JEP
 246          DT    DIVA
 247          DI       0     100     400     600     800     989    1247    1487
 248          DQ       0       1      27      32      30      32      32      32
              *
              * KKDIVCVA
              * KM DIVERT FLOW FROM VC TO VA OVER 51st AVE.
              * DT   DIVA
              * DI      0       9     654    2822    7159
              * DQ      0       4     214     753    1814
              *

 249          KK  RTVCQA   ROUTE   REACH
 250          KM   ROUTE FLOW FROM VC TO QA (ALONG 51ST AVENUE).
 251          KM   FUTURE ARTERIAL SECTION
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 252          RS       2              -1        0
 253          RC   0.100   0.023   0.100     5000  0.0030    0.00
 254          RX     0.0     440     445    445.1   575.1   575.2     900  1000.0
 255          RY     105     105     105    99.75   99.75     105     105     105
              *

 256          KK   SUBQA   BASIN
 257          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN
 258          BA   0.485
 259          LG    0.34    0.14   10.10     0.05      20
 260          UI      38      40     133      178     215     253     303     423     464     361
 261          UI     306     252     209      170     115      67      63      44      38      18
 262          UI      12      11      12       11      12       0       0       0       0       0
1                                           HEC-1 INPUT                                              PAGE  8

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

 263          UI       0       0       0        0       0       0       0       0       0       0
              *

 264          KK   CPQA2
 265          KM   ADD HYDROGRAPHS AT QA
 266          HC       2
              *

 267          KK    RSQA
 268          KM         MODIFIED PLUS ROUTING THROUGH PONDING BEHIND RID
 269          RS       1    STOR      -1        0
 270          SV     6.6     9.4    13.0     17.4    22.4    28.1    34.6    42.1    50.4
 271          SE  1032.2  1032.4  1032.6   1032.8  1033.0  1033.2  1033.4  1033.6  1033.8
 272          SQ       0      69    1129     6033   11213
 273          SE  1031.9  1032.4  1032.9   1033.4  1033.9
              *

 274          KK  DIQAPF
 275          KM   DIVERT FLOW FROM QA TO PF
 276          DT    DIPF
 277          DI       0      69    1129     6033   11213
 278          DQ       0      39     462     1272    2210
              *

 279          KK  RTQAJH   ROUTE   REACH
 280          KM         ROUTE FLOW FROM QA TO JH (SHEET FLOW).
 281          KM         TYPE A CHANNEL
 282          RS      11              -1        0
 283          RC   0.100   0.100   0.100     2800  0.0031    0.00
 284          RX     0.0   100.0   400.0    500.0   500.1   600.0   900.0  1000.0
 285          RY     5.0     4.0     1.0      0.0     0.0     1.0     4.0     5.0
              *

 286          KK   SUBQE   BASIN
 287          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN
 288          BA   0.913
 289          LG    0.15    0.13   10.10     0.04      56
```

```
290            UI      92     200     409     529     670     915    1121     854     673     525
291            UI     394     212     156     109      77      28      29      28      29       0
292            UI       0       0       0       0       0       0       0       0       0       0
               *

293            KK    DRQE
294            KM    RETURN DIVERT FROM WC
295            DR    DIQE
               *

296            KK  RTDIQE   ROUTE   REACH
297            KM         ROUTE DIVERT FROM WC TO QE
298            KM         TYPE A CHANNEL
299            RS       8              -1       0
300            RC   0.025   0.025   0.025    6600  0.0030    0.00
301            RX     0.0   100.0   400.0   500.0   500.1   600.0   900.0  1000.0
302            RY     5.0     4.0     1.0     0.0     0.0     1.0     4.0     5.0
               *
```



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

303            KK    CPQE
304            KM         ADD HYDROGRAPHS AT QE
305            HC       2
               *

306            KK    RSQE
307            KM         MODIFIED PULS ROUTING BEHIND RID CANAL
308            RS       1    STOR       0       0
309            SV     9.5    11.0    14.9    20.2    26.5    33.8   55.23    82.5    95.6   159.9
310            SE  1040.1  1040.2  1040.4  1040.6  1040.8  1041.0  1041.5  1042.0  1042.2  1043.0
311            SQ       0     1.8    62.8   242.3   581.9    1158    4169    9977   13108   31180
               *

312            KK  RTQEQC   ROUTE   REACH
313            KM         ROUTE FLOW FROM QE TO QC (SHEET FLOW).
314            KM         TYPE A CHANNEL
315            RS       3              -1       0
316            RC   0.025   0.025   0.025    3000  0.0027    0.00
317            RX     0.0   100.0   400.0   500.0   500.1   600.0   900.0  1000.0
318            RY     5.0     4.0     1.0     0.0     0.0     1.0     4.0     5.0
               *

319            KK   SUBQD   BASIN
320            KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN
321            BA   0.249
322            LG    0.17    0.06   12.40    0.02      51
323            UI      35     125     195     271     419     311     227     158      75      48
324            UI      29      10      11      11       0       0       0       0       0       0
325            UI       0       0       0       0       0       0       0       0       0       0
               *
```

```
  326          KK    DRQD
  327          KM   RETURN DIVERT FROM WA
  328          DR    DIQD
               *

  329          KK  RTDIQD   ROUTE   REACH
  330          KM        ROUTE DIVERT FROM WA TO QD
  331          KM        TYPE C CHANNEL
  332          RS       5              -1       0
  333          RC   0.100   0.023   0.100    5000  0.0030    0.00
  334          RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
  335          RY     105     105     105   99.75   99.75     105     105     105
               *

  336          KK    CPQD
  337          KM    ADD HYDROGRAPHS AT QD
  338          HC       2
               *
1                                       HEC-1 INPUT                                                PAGE 10

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


  339          KK    RSQD
  340          KM        MODIFIED PULS ROUTING BEHIND RID CANAL.
  341          RS       1    STOR       0       0
  342          SV     2.8     4.8     8.6    14.6    22.5    31.9    42.6    54.8    65.5
  343          SE  1038.1  1038.5  1039.0  1039.5  1040.0  1040.5  1041.0  1041.5  1042.0
  344          SQ       0    30.5   388.4  1580.9  4070.0  7936.6.13214.2 19810.4 26117.2
               *

  345          KK  DIQDQB
  346          KM        DIVERT FLOW FROM QD TO QB
  347          DT    DIQB
  348          DI       0      31     388    1580    4070    7937   13214   19810   26117
  349          DQ       0       0      71     591    1899    3883    6624   10067   13292
               *

  350          KK  RTQDQC   ROUTE REACH
  351          KM        ROUTE FLOW FROM QD TO QC.
  352          KM        FUTURE ARTERIAL SECTION
  353          RS       1              -1       0
  354          RC   0.100   0.023   0.100    2600  0.0040    0.00
  355          RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
  356          RY     105     105     105   99.75   99.75     105     105     105
               *

  357          KK   SUBQC   BASIN
  358          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN
  359          BA   0.606
  360          LG    0.23    0.16   10.10    0.04      32
  361          UI      63     146     285     371     474     679     733     552     429     333
  362          UI     233     119      98      64      33      20      20      19      20       0
  363          UI       0       0       0       0       0       0       0       0       0       0
```

```
                *

 364            KK    CPQC
 365            KM        ADD HYDROGRAPHS AT QC
 366            HC        3
                *

 367            KK   DIQCR
 368            KM   DIVERT 80% OF FLOW FROM QC TO RIVER
 369            DT    DISR
 370            DI        0       25       50       75      100      150      200
 371            DQ        0       20       40       60       80      120      160
                *

 372            KK  RTQCJI   ROUTE   REACH
 373            KM        ROUTE FLOW FROM QC TO JF
 374            KM        TYPE A CHANNEL
 375            RS       15                -1        0
 376            RC   0.100    0.100    0.100     6500   0.0028     0.00
 377            RX     0.0    100.0    400.0    500.0    500.1    600.0    900.0   1000.0
 378            RY     5.0      4.0      1.0      0.0      0.0      1.0      4.0      5.0
                *
```



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

 379            KK   SUBQB   BASIN
 380            KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN
 381            BA   0.505
 382            LG    0.30     0.11    11.20     0.03       27
 383            UI      40       48      143      194      234      276      336      483      465      366
 384            UI     316      253      211      166       97       69       63       41       34       12
 385            UI      13       12       13       12       13        0        0        0        0        0
 386            UI       0        0        0        0        0        0        0        0        0        0
                *

 387            KK    DRQB
 388            KM        RETURN DIVERT FROM QD
 389            DR    DIQB
                *

 390            KK  RTDIQB   ROUTE   REACH
 391            KM        TYPE C CHANNEL
 392            RS       12                -1        0
 393            RC   0.100    0.100    0.100     2500   0.0028     0.00
 394            RX     0.0     20.0     35.0     50.0     50.1    250.0    450.0    550.0
 395            RY     5.0      5.0      2.5      0.0      0.0      2.0      4.0      5.0
                *

 396            KK    CPQB
 397            KM   ADD HYDROGRAPHS AT QB
 398            HC        2
                *
```

```
399       KK    RSQB
400       KM        MODIFIED PULS ROUTING THROUGH PONDING BEHIND RID.
401       KM   THROUGH THE 43RD AVENUE.
402       RS       1    STOR       0       0
403       SV     9.4    13.9    19.2    25.5    33.1    41.8    51.7    62.9    75.3    89.1
404       SE  1033.3  1033.6  1033.9  1034.2  1034.5  1034.8  1035.1  1035.4  1035.7  1036.0
405       SQ       0    19.3   123.0   423.5   958.2  1718.8  2775.9  4426.7  6845.4  9954.3
          *

406       KK  RTQBJH   ROUTE REACH
407       KM   ROUTE FLOW FROM QB TO JH (SHEET FLOW).
408       KM        TYPE A CHANNEL
409       RS      15              -1       0
410       RC   0.100   0.100   0.100    3500  0.0028    0.00
411       RX     0.0   100.0   400.0   500.0   500.1   600.0   900.0  1000.0
412       RY     5.0     4.0     1.0     0.0     0.0     1.0     4.0     5.0
          *

413       KK   SUBJH   BASIN
414       KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN
415       BA   0.516
416       LG    0.37    0.11   11.20    0.03      17
417       UI      62     175     314     402     581     733     541     418     304     176
418       UI     107      71      41      19      19      19       0       0       0       0
419       UI       0       0       0       0       0       0       0       0       0       0
          *
```



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

420       KK    CPJH
421       HC       4
          *

422       KK  RTJHJI   ROUTE REACH
423       KM   ROUTE FLOW FROM JH TO JI (SHEET FLOW).
424       KM        TYPE A CHANNEL
425       RS      14              -1       0
426       RC   0.100   0.100   0.100    4000  0.0031    0.00
427       RX     0.0   100.0   400.0   500.0   500.1   600.0   900.0  1000.0
428       RY     5.0     4.0     1.0     0.0     0.0     1.0     4.0     5.0
          *

429       KK   SUBJI   BASIN
430       KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN
431       BA   0.308
432       LG    0.39    0.11   11.20    0.03      21
433       UI      52     209     307     497     514     346     227     104      62      28
434       UI      16      15       0       0       0       0       0       0       0       0
435       UI       0       0       0       0       0       0       0       0       0       0
          *
```

```
 436          KK   CPJI
 437          KM  COMBINE FLOWS AT JI
 438          HC       2
              *

 439          KK  DISRX
 440          KM   DUMMY DIVERT TO SALT RIVER (NOT RETURNED)
 441          DT  DISR1
 442          DI       0   10000
 443          DQ       0   10000
              *

 444          KK  SUBPF    BASIN
 445          KM   VALLEY S-GRAPH WAS USED FOR THIS BASIN
 446          BA  0.502
 447          LG   0.17     0.20     7.30     0.12       52
 448          UI    113      407      611     1001      766      497      244      127       58       26
 449          UI     28        0        0        0        0        0        0        0        0        0
 450          UI      0        0        0        0        0        0        0        0        0        0
              *

 451          KK  RETPF
 452          KM  DIVERT RETENTION OUT OF MODEL DUE TO KNIGHT TRANSPORTATION
 453          KM  PARKING LOT EXPANSION. -DCF
 454          KM  TOTAL RETENTION IS 3.9 AF. 80% OF THAT IS USED HERE. -DCF
 455          DT  RETPF      3.1
 456          DI       0   10000
 457          DQ       0   10000
              *
```



```
 458          KK   DRPF
 459          KM       RETURN DIVERT FROM QA.
 460          DR   DIPF
              *

 461          KK RTDIPF   ROUTE   REACH
 462          KM        ROUTE DIVERT FROM QA TO PF.
 463          KM        TYPE C CHANNEL
 464          RS     11                -1        0
 465          RC  0.035    0.035    0.035     2600   0.0005     0.00
 466          RX    0.0     20.0     35.0     50.0     50.1    250.0    450.0    550.0
 467          RY    5.0      5.0      2.5      0.0      0.0      2.0      4.0      5.0
              *

 468          KK  @CPPF
 469          KM       ADD HYDROGRAPHS AT PF
 470          HC       2     5.19
              *

 471          KK   RSPF
```

```
472          KM       MODIFIED PULS ROUTING BEHIND RID
             * KO     1
473          RS       1    STOR       0       0
474          SV    28.2    33.4    39.2    48.8    55.7    67.3    76.0    85.3   100.7   111.8
475          SE  1032.2  1032.4  1032.6  1032.8  1033.0  1033.2  1033.4  1033.6  1033.8  1034.0
476          SQ       0    19.4   124.9   457.5  1050.9  1875.2  2964.8  4437.1  6362.7  8725.9
             *

477          KK  DIPFPE
478          KM       DIVERT FLOW FROM PF TO PE
479          DT    DIPE
480          DI       0     255    1875    5340   11513
481          DQ       0       0       0     160    1143
             *

482          KK  RTPFJF   ROUTE   REACH
483          KM       ROUTE FLOW FROM PF TO JF.
484          KM       TYPE A CHANNEL
485          RS       6              -1       0
486          RC   0.035   0.035   0.035    4000  0.0040    0.00
487          RX     0.0    20.0    35.0    50.0    50.1   250.0   450.0   550.0
488          RY     5.0     5.0     2.5     0.0     0.0     2.0     4.0     5.0
             *

489          KK   SUBUD   BASIN
490          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
491          KM    L=       1.3  Lca=       .6   S=   20.0  Kn= .020  LAG=  14.9
492          KM    PHOENIX VALLEY S-GRAPH WAS USED FOR THIS BASIN
493          BA     .759
494          LG     .15     .15    9.70     .05   55.00
495          UI    306.    941.   1739.   1494.    851.    324.    131.     53.      0.      0.
496          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.
             *
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


497          KK    RETUD
498          KM   DIVERT REQUIRED DEVELPMENT RETENTION OUT OF MODEL
499          KM   80% OF REQUIRED MODELED
500          DT   RETB1    38.7
501          DI       0   10000
502          DQ       0   10000
             *

503          KK  SDDRUD
504          KM   DIVERT STORM DRAIN FLOW
505          DT  59SD1D
506          DI       0     102   10000
507          DQ       0     102     102
             *

508          KK  DIUDUA
```

```
509          KM   DIVERT 25% OF FLOW FROM UD TO UA.
510          DT    DIUA
511          DI      0      25      50      75     100     150     200
512          DQ      0       6      13      19      25      38      50
             *

513          KK  RTUDVA   ROUTE   REACH
514          KM       ROUTE FLOW FROM UD TO VA (ALONG 59TH AVENUE).
515          KM       FUTURE ARTERIAL SECTION
516          RS      1              -1       0
517          RC  0.100   0.023   0.100    2600  0.0019    0.00
518          RX    0.0     440     445   445.1   575.1   575.2     900  1000.0
519          RY    105     105     105   99.75   99.75     105     105     105
             *

520          KK   SUBVA   BASIN
521          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN
522          BA  0.493
523          LG   0.10    0.15    8.40    0.10      58
524          UI     75     303     456     684     857     574     402     210     117      67
525          UI     23      23      24       0       0       0       0       0       0       0
526          UI      0       0       0       0       0       0       0       0       0       0
             *
             * THE FOLLOWING DIVERT RETURN IS REMOVED TO MODEL THE ADMP CONDITION

527          KK    DRVA
528          KM        RETURN DIVERT FROM VC
529          DR    DIVA
             *
             * KKRTDIVA
             * KM HEC-RAS REACH
             * KO     1
             * KM      ROUTE FLOW FROM VC TO VA (ALONG SPRR).
             * KM      Method changed from Normal Depth Storage to Modified Puls 06.19.00 JEP
             * KM      Stage-Storage values are based on HEC-2 analysis results. 06.19.00 JEP
             * KM      Values transferred directly from HEC-2 file:  Tape7_3  09.29.00  JEP
             * RS    15    STOR       0       0
             * SV     0      56      87     130     163     191     205     218     227
             * SQ     0     100     200     400     600     800    1000    1200    1500
             *
```



```
530          KK   CPVA1
531          KM        ADD HYDROGRAPH SUBVA TO RTDIVA
532          HC       3
             *
             *

533          KK  SDDRVA
534          KM   DIVERT STORM DRAIN FLOW
535          DT  59SD2D
```

```
 536          DI       0      59   10000
 537          DQ       0      59      59
              *
              * KK CPVA2
              * KM      ADD HYDROGRAPHS SUBVA AND RTDIVA TO RTUDVA
              * HC      2
              *
              * KK  RSVA
              * KM MODIFIED PULS ROUTING THROUGH PONDING BEHIND SPRR.
              * KM Revised SV-SQ records to reflect new weir analysis based on survey. 03.15.0
              * KO      1
              * RS      1    STOR       0       0
              * SV  10.3    13.3    15.6    23.9    34.6    48.9    67.7    90.8   118.6
              * SE1044.2  1044.3  1044.5  1045.0  1045.5  1046.0  1046.5  1047.0  1047.5
              * SQ      0       2      39     397    1279    2904    5363    8613   13175
              *

 538          KK  DIVAPE
 539          KM   DIVERT FLOW FROM VA TO UC OVER 59TH AVE.
 540          KM   Revised DQ records to reflect new weir analysis based on survey. 05.04.00 JEP
 541          KM   REVISED DIVERSION RECORDS TO REROUTE DIVERSION AROUND CODE SEQUENCE.
 542          KM   INSTEAD OF DIVERTING FLOW OVER THE WEIR TO THE SOUTH, FLOW IS BEING
 543          KM   DIVERTED TO THE WEST. 06.02.00 -DCF
 544          KM   Revised DQ records based on HEC-2 analysis results.  06.19.00 JEP
 545          DT    DIUC
 546          DI       0     200     400     600     800    1000    1200    1500
 547          DQ       0     200     398     548     656     715     738     756
              * DI     0       2      39     397    1279
              * DQ     0       0       0       0       0
              *

 548          KK  RTVAPE    ROUTE   REACH
 549          KM   ROUTE FLOW FROM VA TO PE (ALONG 59TH AVENUE).
 550          KM   FUTURE ARTERIAL SECTION
 551          RS       2              -1       0
 552          RC   0.100   0.023   0.100    3000  0.0038    0.00
 553          RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
 554          RY     105     105     105   99.75   99.75     105     105     105
              *
```



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

 555          KK   SUBPE   BASIN
 556          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN
 557          BA   0.504
 558          LG    0.13    0.26    6.20    0.22      56
 559          UI     130     449     692    1071     728     453     189     108      32      29
 560          UI       0       0       0       0       0       0       0       0       0       0
              *

 561          KK    DRPE
 562          KM    RETURN DIVERT FROM PF
```

```
 563          DR    DIPE
              *

 564          KK  RTDIPE
 565          KM         ROUTE DIVERT FROM PF TO PE.
 566          KM         TYPE C CHANNEL
 567          RS       3               -1       0
 568          RC    .035    .035    .035    2000   .0005
 569          RX       0      20      35      50    50.1     250     450     550
 570          RY       5       5     2.5       0       0       2       4       5
              *

 571          KK    CPPE
 572          KM        ADD HYDROGRAPHS AT PE
 573          HC       3
              *

 574          KK    RSPE
 575          KM         RESERVOIR ROUTING BEHIND 59TH AVE AND RID CANAL
 576          RS       1    STOR       0       0
 577          SV    15.6    16.9    21.0    24.0    29.5    33.7    38.3    43.2
 578          SE  1032.5  1032.6  1032.8  1033.0  1033.2  1033.4  1033.6  1033.7
 579          SQ       0    1.44      23     194     637    1420    2516    3177
              *

 580          KK  DIPEPD
 581          KM         DIVERT FLOW FROM PE TO PD
 582          DT    DIPD
 583          DI       0     8.2     636    3177
 584          DQ       0       0       0     8.1
              *

 585          KK  RTPEJF   ROUTE   REACH
 586          KM        ROUTE FLOW FROM PE TO JF (ALONG 59TH AVE).
 587          KM        FUTURE ARTERIAL SECTION
 588          RS       1               -1       0
 589          RC   0.100   0.023   0.100    2600  0.0036    0.00
 590          RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
 591          RY     105     105     105   99.75   99.75     105     105     105
              *
```



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

 592          KK   SUBJF   BASIN
 593          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 594          KM    L=        .7  Lca=       .4   S=   11.1  Kn= .027  LAG=  22.9
 595          KM    AGRICULTURAL S-GRAPH WAS USED FOR THIS BASIN
 596          BA   0.501
 597          LG    0.10    0.15    7.60    0.14      55
 598          UI     320    1108    1172     675     319     146      67      20      19      19
 599          UI       0       0       0       0       0       0       0       0       0       0
              *
```

```
600   KK    CPJF
601   KM   COMBINE FLOWS AT JF.
602   HC        3
      *

603   KK  RTJFJG   ROUTE   REACH
604   KM        ROUTE FLOW FROM JF TO JE (ALONG 59TH AVE).
605   KM        FUTURE ARTERIAL SECTION
606   RS        3                -1        0
607   RC    0.100   0.023   0.100    6000  0.0036     0.00
608   RX      0.0     440     445   445.1   575.1    575.2      900  1000.0
609   RY      105     105     105   99.75   99.75      105      105     105
      *

610   KK    SUBJG   BASIN
611   KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
612   KM    L=       .7  Lca=       .4   S=   11.1  Kn= .027  LAG=  22.9
613   KM    AGRICULTURAL S-GRAPH WAS USED FOR THIS BASIN
614   BA    0.901
615   LG     0.12    0.16    8.40    0.10      51
616   UI      195     717    1181    1396    1191      840      531     336     203     134
617   UI       96      35      20      21      21       20       21       0       0       0
618   UI        0       0       0       0       0        0        0       0       0       0
      *

619   KK    CPJG
620   KM   COMBINE FLOWS AT SALT RIVER.
621   HC        2
      *

622   KK  CPJGSR
623   KM   COMBINE FLOWS AT SALT RIVER
624   HC        2
      *
      * *****************************************************************************
      *

625   KK    DRUC
626   KM    RETURN DIVERT FROM VA
627   DR    DIUC
      *
      *
      * KKRTVAUC   ROUTE   REACH
      * KM       ROUTE FLOW FROM VA TO UC
      * KM       Channel geometry changed to match natural conditions 04.11.00  JEP
      * KM       Manning's N values changed to match approved values 04.11.00  JEP
      * RS      9                -1        0
      * RC 0.035   0.035   0.035    5200  0.0012     0.00
      * RX    0.0    20.0    35.0    50.0    50.1    250.0    450.0   550.0
      * RY    5.0     5.0     2.5     0.0     0.0      2.0      4.0     5.0
      *
```

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


 628          KK  RTVAUC
 629          KM   HEC-RAS REACH
 630          KM        ROUTE FLOW FROM VA TO A POINT IN UC (ALONG SPRR).
 631          KM        Channel geometry changed to match natural conditions 04.11.00  JEP
 632          KM        Manning's N values changed to match approved values 04.11.00  JEP
 633          KM        Method changed from Normal Depth Storage to Modified Puls 05.25.00 JEP
 634          KM        Stage-storage values are from HEC-2 results 06.19.00 JEP
 635          KM        Values transferred directly from HEC-2 file: Tape7_4  09.29.00 JEP
 636          KM        Values modified to reflect channelization downstream  06.11.01 JEP
 637          RS        9    STOR       0       0
 638          SV        0      46      62      76      90     102     114     125     137
 639          SQ        0     200     400     600     800    1000    1200    1400    1600
              *
              * KKSUBUC    BASIN
              * KM  VALLEY S-GRAPH WAS USED FOR THIS BASIN
              * BA 0.483
              * LG  0.23    0.15    9.70    0.06      28
              * UI    49     105     217     280     354     484     594     451     356      2
              * UI   208     113      83      57      41      15      15      14      15
              * UI     0       0       0       0       0       0       0       0       0
              *
              * KK@CPUC1
              * KM      ADD HYDROGRAPHS SUBUC1 TO RTVAUC
              * HC      2    1.73
              *

 640          KK  MCUCUC    ROUTE   REACH
 641          KM   ADMP CHANNEL
 642          KM   MASTER CHANNEL ROUTE FROM UC1 TO UC2
 643          KM   ROUTING RECORD ADDED, JEP 6/11/01
 644          RS        1    FLOW      -1
 645          RC    0.014   0.014   0.014    2493  0.0014    0.00
 646          RX      0.0    16.0    16.0    16.0    46.0    46.0    46.0    62.0
 647          RY      4.8     5.1     2.6     0.0     0.0     2.6     5.1     4.8
              *

 648          KK  SUBUC    BASIN
 649          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN
 650          BA   0.483
 651          LG    0.23    0.15    9.70    0.06      28
 652          UI      49     105     217     280     354     484     594     451     356     278
 653          UI     208     113      83      57      41      15      15      14      15       0
 654          UI       0       0       0       0       0       0       0       0       0       0
              *

 655          KK   @CPUC
 656          KM        ADD HYDROGRAPHS SUBUC TO MCUCUC
 657          HC        2    1.73
```

```
658          KK  SUBTB1
659          KM   BASIN TB1
660          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
661          KM    L=       .9  Lca=       .3   S=    9.4  Kn= .020  LAG=  10.4
662          KM    PHOENIX VALLEY S-GRAPH WAS USED FOR THIS BASIN
663          BA     .14
664          LG     .25     .15    9.70     .05   30.00
665          UI    118.    367.    381.    146.     40.     14.      0.      0.      0.      0.
666          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
             *

667          KK   RETB1
668          KM   DIVERT REQUIRED DEVELPMENT RETENTION OUT OF MODEL
669          KM   80% OF REQUIRED MODELED
670          DT   RETB1     11.2
671          DI       0    10000
672          DQ       0    10000
             *

673          KK  SDDTB1
674          KM   DIVERT STORM DRAIN FLOW
675          DT  67SD1D
676          DI       0      17   10000
677          DQ       0      17      17
             *

678          KK  RTUAUC   ROUTE   REACH
679          KM       ROUTE FLOW FROM TB1 TO UA (ALONG 67TH AVENUE).
680          KM       FUTURE ARTERIAL SECTION
681          RS       2              -1       0
682          RC   0.100   0.023   0.100    2450  0.0015    0.00
683          RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
684          RY     105     105     105   99.75   99.75     105     105     105
             *

685          KK   SUBUA   BASIN
686          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN
687          BA   0.561
688          LG    0.23    0.16    9.70    0.06      22
689          UI      44      46     155     204     249     294     350     490     536     417
690          UI     354     291     242     198     133      77      73      51      43      21
691          UI      13      13      14      13      14       0       0       0       0       0
692          UI       0       0       0       0       0       0       0       0       0       0
             *

693          KK    DRUA
694          KM    RETURN DIVERT FROM UD
695          DR    DIUA
             *
```

```
696          KK  RTDIUA   ROUTE   REACH
697          KM         ROUTE DIVERT TO UA
698          KM         FUTURE ARTERIAL SECTION
699          RS       4               -1       0
700          RC   0.100   0.023   0.100    5000  0.0014    0.00
701          RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
702          RY     105     105     105   99.75   99.75     105     105     105
             *

703          KK   @CPUA
704          KM         ADD HYDROGRAPHS AT UA
705          HC       3    1.46
             *

706          KK  SDDRUA
707          KM   DIVERT STORM DRAIN FLOW
708          DT  67SD1D
709          DI       0      96   10000
710          DQ       0      96      96
             *

711          KK  DIUAUC
712          KM         DIVERT 20% OF FLOW FROM UA TO TB
713          DT    DITB
714          DI       0      25      50      75     100     150     200
715          DQ       0       5      10      15      20      30      40
             *

716          KK  RTUAUC   ROUTE   REACH
717          KM         ROUTE FLOW FROM UA TO UC (ALONG 67TH AVENUE).
718          KM         FUTURE ARTERIAL SECTION
719          RS       2               -1       0
720          RC   0.100   0.023   0.100    2400  0.0017    0.00
721          RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
722          RY     105     105     105   99.75   99.75     105     105     105
             *

723          KK  ~CPUC2
724          KM         ADD HYDROGRAPHS SUBUC AND MCUCUC TO RTUAUC
725          HC       2
             *
             * KK  RSUC
             * KM       ROUTE FLOW FROM UC TO UB OVER 67th AVE.
             * KM Revised SV-SQ records to reflect new weir analysis based on survey. 03.15.0
             * KO     1
             * RS     1    STOR       0       0
             * SV   4.8     6.9     9.9    19.0    33.0    52.6    77.4   108.7   148.6
             * SE1036.2  1036.3  1036.5  1037.0  1037.5  1038.0  1038.5  1039.0  1039.5
             * SQ     0       0      76     811    2294    4562    7715   11722   16588
             *
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 726          KK  DIUCPC
 727          KM   DIVERT FLOW FROM UC TO PC OVER SPRR
 728          KM   Revised DQ records to reflect new weir analysis based on survey. 05.04.00 JEP
 729          KM   Revised DQ records based on HEC-2 results.  06.19.00 JEP
 730          KM   REVERSE DIVERT TO ROUTE AROUND CODE SEQUENCE. 06.21.00 -DCF
 731          KM   DIVERT EFFECTIVELY REMOVED DUE TO ADMP CHANNELIZATION.  06.11.01 -JEP
 732          DT    DIUB
 733          DI       0     100     400     800    1000    1200    1400    1600
 734          DQ       0     100     400     800    1000    1200    1400    1600
              * DI     0     100     400     800    1000    1200    1400    1600
              * DQ     0     100     400     674     825     854     914     945
              * DI     0     100     400     800    1000    1200    1400    1600
              * DQ     0       0       0     126     175     346     486     655
              *

 735          KK  RTUCPC   ROUTE   REACH
 736          KM   ROUTE FLOW FROM UC TO PC (ALONG 67TH AVE).
 737          KM   FUTURE ARTERIAL SECTION
 738          RS       3              -1       0
 739          RC   0.100   0.023   0.100    3000  0.0038    0.00
 740          RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
 741          RY     105     105     105   99.75   99.75     105     105     105
              *

 742          KK   SUBPC   BASIN
 743          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN
 744          BA   0.300
 745          LG    0.18    0.19    8.80    0.06      42
 746          UI     160     482     829     518     214      79      23       0       0       0
 747          UI       0       0       0       0       0       0       0       0       0       0
              *

 748          KK    CPPC
 749          KM   COMBINE POSSIBLE FLOWS FROM UC WITH FLOWS FROM PC
 750          HC       2
              *

 751          KK    RSPC
 752          KM   MODIFIED PULS ROUTING FROM PC TO NB.
 753          RS       1    STOR       0       0
 754          SV    29.1    31.8    34.8    38.2      42      46    50.2    78.8   107.9   135.6
 755          SE  1029.8  1029.9  1030.0  1030.1  1030.2  1030.3  1030.4  1031.0  1031.5  1032.0
 756          SQ       5      27      70     134     225     357     545    3654    9263   17876
              *

 757          KK  RTPCNB   ROUTE   REACH
 758          KM        ROUTE FLOW FROM PC TO NB (ALONG 67TH AVE).
 759          KM        FUTURE ARTERIAL SECTION
 760          RS       7              -1       0
 761          RC   0.100   0.023   0.100    4800  0.0038    0.00
 762          RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
```

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 763          RY     105      105      105    99.75    99.75     105      105      105
              *
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 764          KK   SUBNB   BASIN
 765          KM   BASIN NB
 766          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 767          KM    L=       1.4  Lca=        .7    S=    16.8  Kn= .020  LAG=  16.4
 768          KM    PHOENIX VALLEY S-GRAPH WAS USED FOR THIS BASIN
 769          BA     .44
 770          LG     .25      .15     6.80      .16    12.00
 771          UI    144.     464.     790.     956.     577.     284.     126.      48.      28.       0.
 772          UI      0.       0.       0.       0.       0.       0.       0.       0.       0.       0.
              *

 773          KK   RETNB
 774          KM   DIVERT REQUIRED DEVELPMENT RETENTION OUT OF MODEL
 775          KM   80% OF REQUIRED MODELED
 776          DT   RETNB     33.5
 777          DI       0    10000
 778          DQ       0    10000
              *

 779          KK   CPNB1
 780          KM        ADD HYDROGRAPHS AT NB
 781          HC       2
              *
              * KKDINBNA
              * KM        DIVERT 65% OF FLOW FROM NB TO NA
              * DT  DINA
              * DI       0       25       50       75      100      150      200
              * DQ       0       16       33       49       65       98      130
              *

 782          KK  RTNBJD   ROUTE   REACH
 783          KM        ROUTE FLOW FROM NB TO JD (ALONG 67TH AVENUE).
 784          KM        FUTURE ARTERIAL SECTION
 785          RS       3                -1        0
 786          RC   0.100    0.023    0.100     5200   0.0054     0.00
 787          RX     0.0      440      445    445.1    575.1    575.2      900   1000.0
 788          RY     105      105      105    99.75    99.75      105      105      105
              *

 789          KK   SUBPD   BASIN
 790          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN
 791          BA   0.443
 792          LG    0.14     0.17     8.00     0.11       24
 793          UI     130      438      708      954      610      331      138       64       27       27
 794          UI       0        0        0        0        0        0        0        0        0        0
              *
```

```
 795          KK    DRPD
 796          KM    RETURN DIVERT FROM PE
 797          DR    DIPD
              *
```



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

 798          KK   CPPD2
 799          KM        ADD HYDROGRAPH AT PD
 800          HC        2
              *

 801          KK    RSPD
 802          KM        MODIFIED PULS ROUTING FROM PD TO NC.
              * KO      1
 803          RS        1    STOR       0       0
 804          SV    25.6    37.6    42.4    51.8    53.9    56.1    58.2
 805          SE  1030.6  1030.7  1030.8  1030.9  1031.0  1031.1  1031.2
 806          SQ       0       4      28     101     246     487     820
              *

 807          KK  RTPDNC   ROUTE   REACH
 808          KM        ROUTE FLOW FROM PD TO NC (SHEET FLOW).
 809          KM        TYPE A CHANNEL
 810          RS        5              -1       0
 811          RC   0.035   0.035   0.035    3000  0.0027    0.00
 812          RX     0.0   100.0   400.0   500.0   500.1   600.0   900.0  1000.0
 813          RY     5.0     4.0     1.0     0.0     0.0     1.0     4.0     5.0
              *

 814          KK   SUBNC   BASIN
 815          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 816          KM    L=        .7  Lca=       .3    S=   14.7  Kn= .092  LAG=  43.5
 817          KM    AGRICULTURAL S-GRAPH WAS USED FOR THIS BASIN
 818          BA   0.306
 819          LG    0.47    0.25    5.30    0.35      51
 820          UI      86     341     534     508     379     219     121      71      44      23
 821          UI       9       8       8       9       8       0       0       0       0       0
 822          UI       0       0       0       0       0       0       0       0       0       0
              *

 823          KK    CPNC
 824          KM        ADD HYDROGRAPHS AT NC.
 825          HC        2
              *

 826          KK  RTNCJE   ROUTE   REACH
 827          KM        ROUTE FLOW FROM NC TO JE (SHEET FLOW).
 828          KM        TYPE A CHANNEL
 829          RS       12              -1       0
 830          RC   0.035   0.035   0.035    5000  0.0014    0.00
 831          RX     0.0   100.0   400.0   500.0   500.1   600.0   900.0  1000.0
```

```
832           RY     5.0     4.0     1.0     0.0     0.0     1.0     4.0     5.0
              *

833           KK  SUBJE1   BASIN
834           KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
835           KM    L=      1.1  Lca=       .6   S=   12.7  Kn= .090  LAG=  66.1
836           KM    AGRICULTURAL S-GRAPH WAS USED FOR THIS BASIN
837           BA   0.248
838           LG    0.10    0.25    5.40    0.32      55
```



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

839           UI     192     630     574     304     118      57      16      11      10       0
840           UI       0       0       0       0       0       0       0       0       0       0
              *

841           KK   CPJE1
842           KM   COMBINE FLOWS FROM NC AND JE1
843           HC       2
              *

844           KK  RTJEJD   ROUTE   REACH
845           KM       ROUTE FLOW FROM JE TO JD.
846           KM       FUTURE ARTERIAL SECTION
847           RS       3              -1       0
848           RC   0.100   0.023   0.100    2500  0.0080    0.00
849           RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
850           RY     105     105     105   99.75   99.75     105     105     105
              *

851           KK   SUBJD   BASIN
852           KM   BASIN JD
853           KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
854           KM    L=      1.1  Lca=       .6   S=   12.7  Kn= .020  LAG=  14.7
855           KM    PHOENIX VALLEY S-GRAPH WAS USED FOR THIS BASIN
856           BA     .51
857           LG     .25     .17    8.00     .10   22.50
858           UI    211.    648.   1201.    988.    552.    203.     82.     36.      0.      0.
859           UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
              *

860           KK   RETJD
861           KM   DIVERT REQUIRED DEVELPMENT RETENTION OUT OF MODEL
862           KM   80% OF REQUIRED MODELED
              * KO     3                              21
863           DT   RETJD    35.0
864           DI       0   10000
865           DQ       0   10000
              *

866           KK    CPJD
867           KM       ADD HYDROGRAPHS AT JD
868           HC       3
```

```
                 *
                 * KKSDDRJD
                 * KM DIVERT STORM DRAIN FLOW
                 * DT59SDJD
                 * DI      0      207   10000
                 * DQ      0      207     207
                 *

   869           KK  DIJDJC
   870           KM        DIVERT 37% OF FLOW AT JD TO JC2.
   871           DT   DIJC2
   872           DI       0       25      50     100     150     200
   873           DQ       0        9      19      37      56      74
                 *
1                                      HEC-1 INPUT                                        PAGE 25

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


   874           KK  RTJDFC   ROUTE   REACH
   875           KM        ROUTE FLOW FROM JD TO FC.
   876           KM        FUTURE ARTERIAL SECTION
   877           RS       1               -1       0
   878           RC   0.100   0.023   0.100    3000  0.0053    0.00
   879           RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
   880           RY     105     105     105   99.75   99.75     105     105     105
                 *

   881           KK  SUBJE2   BASIN
   882           KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
   883           KM    L=      1.1  Lca=       .5    S=   19.8  Kn= .097  LAG=  63.6
   884           KM    AGRICULTURAL S-GRAPH WAS USED FOR THIS BASIN
   885           BA   0.253
   886           LG    0.12    0.13   10.10    0.05      44
   887           UI     109     427     539     421     225     108      59      33       9       8
   888           UI       8       9       0       0       0       0       0       0       0       0
   889           UI       0       0       0       0       0       0       0       0       0       0
                 *

   890           KK  RETJE2
   891           KM   DIVERT RETENTION OUT OF MODEL DUE TO RIO DEL REY DEVELOPMENT. -DCF
   892           KM   TOTAL RETENTION IS 5.9 AF. 80% OF THAT IS USED HERE. -DCF
   893           DT   RETJE      4.7
   894           DI       0   10000
   895           DQ       0   10000
                 *

   896           KK  RTJEFC   ROUTE   REACH
   897           KM        ROUTE FLOW FROM JE TO FC (SHEET FLOW).
   898           KM        TYPE A CHANNEL
   899           RS       4               -1       0
   900           RC   0.035   0.035   0.035    4000  0.0080    0.00
   901           RX     0.0   100.0   400.0   500.0   500.1   600.0   900.0  1000.0
   902           RY     5.0     4.0     1.0     0.0     0.0     1.0     4.0     5.0
```

```
                 *

 903             KK   SUBFC   BASIN
 904             KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 905             KM    L=      1.0  Lca=       .4   S=   18.6  Kn= .097  LAG=  55.3
 906             KM    AGRICULTURAL S-GRAPH WAS USED FOR THIS BASIN
 907             BA   0.357
 908             LG    0.12    0.16    7.60    0.13      51
 909             UI     101     397     624     592     442     256     140      84      50      28
 910             UI      10       9      10      10      10       0       0       0       0       0
 911             UI       0       0       0       0       0       0       0       0       0       0
                 *

 912             KK    CPFC
 913             KM         ADD HYDROGRAPHS AT FC
 914             HC       3
                 *
```



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

 915             KK  CPFCSR
 916             KM   COMBINE HYDROGRAPHS INTO SALT RIVER AT FC
 917             HC       2
                 *
                 * ***************************************************************************
                 *
                 *
                 * ***************************************************************************
                 *
                 *

 918             KK  DRUCUB
 919             KM   RETURN DIVERT FROM UC
 920             DR    DIUB
                 *

 921             KK  MCUCUB   ROUTE   REACH
 922             KM   ADMP CHANNEL
 923             KM   MASTER CHANNEL ROUTE FROM UC2 TO UB
 924             KM   ROUTING RECORD ADDED, JEP 6/11/01
 925             RS       1    FLOW      -1
 926             RC   0.014   0.014   0.014    1287  0.0010    0.00
 927             RX     0.0    16.0    16.0    16.0    51.0    51.0    51.0    67.0
 928             RY     4.8     5.1     2.5     0.0     0.0     2.5     5.1     4.8
                 *
                 * KKRTUCUB
                 * KM HEC-RAS REACH
                 * KM      ROUTE FLOW FROM UC TO UB
                 * KM      Channel geometry changed to match natural conditions 04.11.00  JEP
                 * KM      Manning's N values changed to match approved values 04.11.00  JEP
                 * RS     4              -1       0
                 * RC 0.035   0.035   0.035    1400  0.0043    0.00
```

```
                * RX   0.0    20.0    35.0    50.0    50.1   250.0   450.0   550.0
                * RY   5.0     5.0     2.5     0.0     0.0     2.0     4.0     5.0
                *
                *

  929           KK   SUBUB
  930           KM   BASIN UB
  931           KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
  932           KM    L=       .8  Lca=       .4   S=    16.2  Kn= .048  LAG=  26.9
  933           KM    PHOENIX VALLEY S-GRAPH WAS USED FOR THIS BASIN
  934           BA     .14
  935           LG     .25     .14    8.80     .08   30.00
  936           UI     18.     53.     91.    119.    176.    199.    143.    106.     76.     38.
  937           UI     27.     18.      6.      5.      5.      5.      0.      0.      0.      0.
  938           UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
                *
```



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


  939           KK  ~@CPUB
  940           KM        ADD HYDROGRAPHS AT UB
  941           HC       2    2.42
                *
                * KK71PASS
                * KM DIVERT LOW FLOW AROUND BASIN
                * DT71PASS
                * DI     0       0   10000
                * DQ     0       0       0
                *

  942           KK  SUBSF1
  943           KM   BASIN SF1
  944           KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
  945           KM    L=       .5  Lca=       .3   S=     9.2  Kn= .100  LAG=  45.9
  946           KM    AGRICULTURAL S-GRAPH WAS USED FOR THIS BASIN
  947           BA     .13
  948           LG     .50     .15    9.70     .07     .00
  949           UI     10.     11.     24.     46.     58.     74.     81.     86.     86.     74.
  950           UI     75.     62.     58.     42.     35.     30.     25.     18.     15.     13.
  951           UI     10.      9.      7.      6.      6.      5.      1.      1.      1.      1.
  952           UI      1.      1.      1.      1.      1.      1.      1.      1.      1.      1.
  953           UI      1.      0.      0.      0.      0.      0.      0.      0.      0.      0.
  954           UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
                *

  955           KK    DRTB
  956           KM        RETURN DIVERT FROM UA
  957           DR    DITB
                *

  958           KK  RTDITB   ROUTE   REACH
  959           KM        ROUTE DIVERT TO SF1 (REACH LENGTH SUBJECT TO CHANGED
```

```
960          KM        BASED ON BASIN 3 LOCATION)
961          KM        TYPE A CHANNEL
962          RS      8             -1        0
963          RC  0.025   0.025  0.025     1400  0.0019     0.00
964          RX    0.0   100.0  400.0    500.0   500.1    600.0    900.0  1000.0
965          RY    5.0     4.0    1.0      0.0     0.0      1.0      4.0     5.0
             *

966          KK  CPBA3
967          KM  COMBINE CPUB, SF1, DITB
968          HC      3
             *

969          KK  SUBTB2
970          KM   BASIN TB2
971          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
972          KM    L=       1.8  Lca=        .9   S=    10.3  Kn= .046  LAG=   50.5
973          KM    PHOENIX VALLEY S-GRAPH WAS USED FOR THIS BASIN
974          BA    .75
975          LG    .15     .15    8.80     .06   55.00
976          UI    50.     50.    127.    204.    251.    289.    334.    391.    512.    630.
```



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

977          UI   541.    450.    392.    333.    284.    242.    184.    119.     88.     82.
978          UI    59.     50.     36.     15.     15.     15.     15.     15.     15.     15.
979          UI     0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
             *

980          KK  RETTB
981          KM   DIVERT REQUIRED DEVELPMENT RETENTION OUT OF MODEL
982          KM   80% OF REQUIRED MODELED
983          DT   RETTB    19.6
984          DI       0   10000
985          DQ       0   10000
             *

986          KK  DITBTA
987          KM        DIVERT 25% OF FLOW TO TA
988          DT    DITA
989          DI       0      25      50      75     100     150     200
990          DQ       0       6      13      19      25      38      50
             *

991          KK  RTTBSF   ROUTE   REACH
992          KM   ROUTE FLOW FROM TB TO SF (ALONG 75TH AVENUE).
993          KM   TARGET CHANNEL
994          RS       4    ELEV   27.35       0
995          RC   0.030   0.030   0.030    2160  0.0010    0.00
996          RX     100   107.0   127.0   133.0   151.0   157.0   179.0   193.0
997          RY    32.5    32.0   27.35   27.35   27.35   27.35    32.0    32.5
             *
```

```
 998          KK  SUSFB2
 999          KM   BASIN SFB2
1000          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1001          KM    L=       .5  Lca=       .3   S=    2.9  Kn= .020  LAG=  11.4
1002          KM    PHOENIX VALLEY S-GRAPH WAS USED FOR THIS BASIN
1003          BA     .11
1004          LG     .15     .15    9.70     .07   50.00
1005          UI     78.    231.    324.    153.     46.     13.      0.      0.      0.      0.
1006          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
              *

1007          KK  SUSF2A
1008          KM   BASIN SF2A
1009          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1010          KM    L=       .6  Lca=       .2   S=    5.9  Kn= .020  LAG=   9.2
1011          KM    PHOENIX VALLEY S-GRAPH WAS USED FOR THIS BASIN
1012          BA     .14
1013          LG     .15     .15    9.70     .07   80.00
1014          UI    154.    478.    336.     89.     19.      0.      0.      0.      0.      0.
1015          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
              *
```



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


1016          KK  RSSF2A
1017          KM   TARGET NORTH BASIN
1018          KM   28.51 Acre Feet of Sorage Provided per Target Drainage Report
1019          DT  RETSF2   28.51
1020          DI       0   10000
1021          DQ       0   10000
              *
              * KKRSSF2A
              * KM  TARGET NORTH RETENTION BASIN
              * RS     1    STOR       0       0
              * SA  5.57    6.03    6.50    6.98    6.56    8.03   12.56   20.42   28.51   37.
              * SE     0       1       2       3       4       5       6       7       8
              * SQ     0       0       0       0       0       0       0       0       0     3
              *

1022          KK  CPSF2B
1023          KM    COMBINE FLOW FROM TB1, SF2A AMD SF2B
1024          HC       3
              *

1025          KK   CPBA3
1026          KM   Combine Target with regional basin
1027          HC       2
              *

1028          KK  BSN71
1029          KM   PROPOSED DETENTION BASIN DRC #4
1030          KM   INCLUDES TARGET SOUTH RETETNION BASIN AREA
```

```
1031          RS       1    ELEV    1010
1032          SV       0   0.001   0.001   10.40   15.34   53.24   74.82  118.92  163.57  349.40
1033          SQ       0   18.38   45.77   52.41   55.24   73.97   78.64   86.98   90.38   96.00
1034          SE    1010 1012.12    1015    1016 1016.47 1020.00    1021 1023.00    1024    1028
              *

1035          KK  DBSN71
1036          KM   DIVERT FLOWS FROM DETENTION BASIN DCR4 TO STORM DRAIN
1037          DT   BSN71
1038          DI       0   10000
1039          DQ       0   10000
              *

1040          KK  SUBPB
              * KO     3                               21
1041          KM   BASIN PB
1042          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1043          KM    L=      1.1  Lca=       .5    S=     5.3  Kn= .020  LAG=  16.9
1044          KM    PHOENIX VALLEY S-GRAPH WAS USED FOR THIS BASIN
1045          BA     .41
1046          LG     .25     .15    8.80     .06   55.00
1047          UI    123.    405.    671.    887.    553.    301.    126.     56.     25.     25.
1048          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
              *
```



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

1049          KK   RETPB
1050          KM   DIVERT REQUIRED DEVELPMENT RETENTION OUT OF MODEL
1051          KM   80% OF REQUIRED MODELED
              * KO     3                               21
1052          DT   RETPB    42.9
1053          DI       0   10000
1054          DQ       0   10000
              *

1055          KK   PB75
1056          KM   BASIN PB75 (ROADWAY DRAINAGE)
1057          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1058          KM    L=       .5  Lca=       .3    S=    12.0  Kn= .020  LAG=   8.1
1059          KM    PHOENIX VALLEY S-GRAPH WAS USED FOR THIS BASIN
1060          BA     .01
1061          LG     .15     .15    9.70     .04   80.00
1062          UI     14.     39.     19.      4.      0.      0.      0.      0.      0.      0.
1063          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
              *

1064          KK    PBBU
1065          KM   BASIN PBBU   (ROADWAY DRAINAGE)
1066          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1067          KM    L=      1.0  Lca=       .5    S=     6.0  Kn= .020  LAG=  15.8
1068          KM    PHOENIX VALLEY S-GRAPH WAS USED FOR THIS BASIN
```

```
1069      BA      .02
1070      LG      .15     .15    8.00     .07   80.00
1071      UI       7.     23.     42.     44.     26.     11.      5.      2.      1.      0.
1072      UI       0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
          *

1073      KK  CPBSD
          * KO      3                              21
1074      KM            COMBINE STREET DRAINAGE
1075      HC        2
          *

1076      KK  DPBSD1
1077      KM   DIVERT STORM DRAIN FLOW (75TH AVENUE)
1078      DT  SD75PB
1079      DI        0      23   10000
1080      DQ        0      23      23
          *
          *

1081      KK  DPBSD2
1082      KM   DIVERT STORM DRAIN FLOW (BUCKEYE ROAD DRAINAGE)
1083      DT  SDBRPB
1084      DI        0      39   10000
1085      DQ        0      39      39
          *
```



```
1086      KK    CPPB
          * KO      3                              21
1087      KM        ADD HYDROGRAPHS AT PB
1088      HC        2
          *

1089      KK  DIPBPA
1090      KM        DIVERT 19% OF FLOW FROM PB TO PA(ADMP DIVERSION)
1091      DT   DIPA1
1092      DI        0      25      50      75     100     150     200     400     800   10000
1093      DQ        0       5      10      14      19      29      38      76     152    1900
          *

1094      KK   CPPB1
          * KO      3                              21
1095      KM        ADD HYDROGRAPHS AT PB
1096      HC        2
          *

1097      KK  RTPBNA   ROUTE   REACH
1098      KM        ROUTE FLOW FROM PB TO NA ALONG 75th AVE.
1099      KM        FUTURE ARTERIAL SECTION
          * KO      3                              21
```

```
1100            RS       4    ELEV      -1       0
1101            RC   0.100   0.023   0.100    5280  0.0032    0.00
1102            RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
1103            RY     105     105     105   99.75   99.75     105     105     105
                *

1104            KK  SUBNA
1105            KM   BASIN NA
1106            KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1107            KM    L=      2.0  Lca=      1.0   S=    10.5  Kn= .020  LAG=  24.0
1108            KM    PHOENIX VALLEY S-GRAPH WAS USED FOR THIS BASIN
1109            BA     .94
1110            LG     .25     .15    8.00     .08   51.00
1111            UI    132.    473.    742.   1029.   1568.   1184.    859.    588.    280.    184.
1112            UI    106.     40.     40.     40.      0.      0.      0.      0.      0.      0.
1113            UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
                *

1114            KK   RETNA
1115            KM   DIVERT REQUIRED DEVELPMENT RETENTION OUT OF MODEL
1116            KM   80% OF REQUIRED MODELED
1117            DT   RETNA     89.6
1118            DI       0   10000
1119            DQ       0   10000
                *
1                                       HEC-1 INPUT                                                     PAGE 32

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


1120            KK    NA75
1121            KM   BASIN NA75  (75 AVENUE ROADWAY DRAINAGE)
1122            KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1123            KM    L=      1.0  Lca=       .5   S=    15.2  Kn= .020  LAG=  13.1
1124            KM    PHOENIX VALLEY S-GRAPH WAS USED FOR THIS BASIN
1125            BA     .02
1126            LG     .15     .15    7.60     .08   80.00
1127            UI     11.     32.     55.     35.     14.      5.      2.      0.      0.      0.
1128            UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
                *

1129            KK    NALB
1130            KM   BASIN NALB  (LOWER BUCKEYE ROADWAY DRAINAGE)
1131            KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1132            KM    L=      1.0  Lca=       .5   S=     6.0  Kn= .020  LAG=  15.8
1133            KM    PHOENIX VALLEY S-GRAPH WAS USED FOR THIS BASIN
1134            BA     .02
1135            LG     .15     .19    6.60     .12   80.00
1136            UI      7.     23.     42.     44.     26.     11.      5.      2.      1.      0.
1137            UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
                *

1138            KK   CNASD
                * KO     3                              21
```

```
1139         KM    COMBINE STREET DRAINAGE
1140         HC        2
             *

1141         KK  CPNA1
1142         KM    COMBINE ROUTED FLOW FROM PB
1143         HC        3
             *
             *

1144         KK  DNASD1
1145         KM   DIVERT STORM DRAIN FLOW (75TH AVENUE)
1146         DT  SD75NA
1147         DI        0      40   10000
1148         DQ        0      40      40
             *

1149         KK  DNASD2
1150         KM   DIVERT STORM DRAIN FLOW (LOWER BUCKEYE)
1151         DT  SDLBNA
1152         DI        0      38   10000
1153         DQ        0      38      38
             *

1154         KK  DADMP1
1155         KM   DIVERT STREET FLOW TO ADMP CHANNEL
1156         DT   ADMP1
1157         DI        0     220   10000
1158         DQ        0     220   10000
             *
```



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


1159         KK  SUBJC1
1160         KM   BASIN JC1
1161         KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1162         KM    L=      1.5  Lca=      1.0   S=   10.7  Kn= .020  LAG=  21.4
1163         KM    PHOENIX VALLEY S-GRAPH WAS USED FOR THIS BASIN
1164         BA     .47
1165         LG     .25     .15    7.00     .13   30.00
1166         UI     76.    304.    456.    712.    797.    538.    365.    173.    102.     52.
1167         UI     23.     23.      0.      0.      0.      0.      0.      0.      0.      0.
1168         UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
             *

1169         KK  RETJC1
             * KO      3                              21
1170         KM   DIVERT REQUIRED DEVELPMENT RETENTION OUT OF MODEL
1171         KM   80% OF REQUIRED MODELED
1172         DT  RETJC1    35.5
1173         DI        0   10000
1174         DQ        0   10000
```

```
                *

1175            KK    JC75
1176            KM   BASIN JC75  (ROADWAY DRAINAGE)
1177            KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1178            KM    L=      1.0  Lca=       .5   S=    13.0  Kn= .020  LAG=  13.6
1179            KM    PHOENIX VALLEY S-GRAPH WAS USED FOR THIS BASIN
1180            BA     .02
1181            LG     .15     .15    7.00     .10   80.00
1182            UI     10.     31.     56.     38.     18.      7.      2.      2.      0.      0.
1183            UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
                *

1184            KK  CJCSD1
                * KO     3                               21
1185            KM        COMBINE STREET DRAINAGE AND RETETION OVERFLOW
1186            HC       2     .49
                *

1187            KK  SUBJC2
1188            KM   BASIN JC2
1189            KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1190            KM    L=      1.5  Lca=      1.0   S=    11.3  Kn= .020  LAG=  21.2
1191            KM    PHOENIX VALLEY S-GRAPH WAS USED FOR THIS BASIN
1192            BA     .48
1193            LG     .25     .15    7.00     .13     .24
1194            UI     81.    317.    475.    753.    805.    544.    365.    165.    101.     49.
1195            UI     23.     23.      0.      0.      0.      0.      0.      0.      0.      0.
1196            UI      0.      0.      0.      0.      0.      0.      0.      0.      0.
                *
```



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

1197            KK  RETJC2
                * KO     3                               21
1198            KM   DIVERT REQUIRED DEVELPMENT RETENTION OUT OF MODEL
1199            KM    140 ACRES OF EXISITING DEVELOPMENT NOT INCLUDED IN CALCULATIONS
1200            KM   80% OF REQUIRED MODELED
1201            DT  RETJC2    19.6
1202            DI       0   10000
1203            DQ       0   10000
                *

1204            KK  DETJC2
1205            KM   DIVERT PROPOSED RETENTION OUT OF MODEL FOR APPROXIMATELY 140 ACRES
1206            KM   OF EXISITING DEVELOPMENT THAT DOES NOT HAVE RETENTION
1207            KM   80% OF REQUIRED MODELED
1208            DT  DETJC2    16.6
1209            DI       0   10000
1210            DQ       0   10000
                *
```

```
1211     KK  RTJCJC   ROUTE   REACH
1212     KM        ROUTE FLOW FROM JC2 TO JC1 ALONG 75th AVE.
1213     KM        FUTURE ARTERIAL SECTION
         * KO     3                             21
1214     RS       2    ELEV      -1        0
1215     RC   0.100   0.023   0.100     2640  0.0021    0.00
1216     RX     0.0     440     445    445.1   575.1   575.2     900  1000.0
1217     RY     105     105     105    99.75   99.75     105     105     105
         *

1218     KK  CPJC1A
1219     KM          COMBINE FLOW FROM JC2 WITH FLOW FROM JC3
1220     HC       2     .97
         *

1221     KK    JCBR
1222     KM   BASIN JCBR  (ROADWAY DRAINAGE)
1223     KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1224     KM    L=      1.0  Lca=       .5    S=   11.0  Kn= .020  LAG=  14.0
1225     KM    PHOENIX VALLEY S-GRAPH WAS USED FOR THIS BASIN
1226     BA     .02
1227     LG     .15     .17    6.90      .11   80.00
1228     UI     10.     29.     53.      39.     20.      7.      3.      2.      0.      0.
1229     UI      0.      0.      0.       0.      0.      0.      0.      0.      0.      0.
         *

1230     KK  CJCSD2
         * KO     3                             21
1231     KM        COMBINE STREET DRAINAGE AND RETETION OVERFLOW
1232     HC       2
         *
```



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

1233     KK  CPJC1B
         * KO     3                             21
1234     KM        COMBINE JC1, JC2 AND STREET DRAINAGE
1235     HC       2   5.96
         *

1236     KK  DJC2SD
1237     KM   DIVERT OFFSITE TO STORM DRAIN FLOW (BROADWAY STORM DRAIN FLOW)
1238     DT  SDOSBR
1239     DI       0      41   10000
1240     DQ       0      41      41
         *

1241     KK  DJCSD1
1242     KM   DIVERT STORM DRAIN FLOW (75TH AVE. STORM DRAIN FLOW)
1243     DT  SD75JC
1244     DI       0      42   10000
1245     DQ       0      42      42
```

```
                    *
1246                KK   DIJD
1247                KM   RETURN DIVERTED FLOW FROM BASIN SUBJD
1248                DR   DIJC2
                    *
1249                KK  RTJCJC   ROUTE   REACH
1250                KM        ROUTE FLOW FROM JD TO JC1 ALONG 75th AVE.
1251                KM        FUTURE ARTERIAL SECTION
                    * KO     3                             21
1252                RS       5    ELEV      -1       0
1253                RC   0.100   0.023   0.100    5280  0.0021    0.00
1254                RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
1255                RY     105     105     105   99.75   99.75     105     105     105
                    *
1256                KK   CPJC2
                    * KO     3                             21
1257                KM         COMBINE SPLIT FLOW FROM SUBJD WITH FLOW AT CPCJ1
1258                HC       2    8.11
                    *
1259                KK  DIJCJB
1260                KM        DIVERT 46% OF FLOW AT JC TO JB.  (ADMP DIVERSION)
                    * KO     3                             21
1261                DT   DIJB2
1262                DI       0      25      50      75     100     150     200    1346    2000
1263                DQ       0      12      23      35      46      69      92   605.7     920
                    *
```



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

1264                KK  RTJCFB   ROUTE   REACH
1265                KM        ROUTE FLOW FROM JC1 TO FB ALONG 75th AVE.
1266                KM        FUTURE ARTERIAL SECTION
                    * KO     3                             21
1267                RS       3    ELEV      -1       0
1268                RC   0.100   0.023   0.100    4200  0.0032    0.00
1269                RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
1270                RY     105     105     105   99.75   99.75     105     105     105
                    *
1271                KK   DRB71
1272                KM   RETURN DIVERTED FLOW FROM BASIN DRC #4
1273                DR   BSN71
                    *
1274                KK  RT71PB   ROUTE   REACH
1275                KM        ROUTE FLOW FROM BASIN TO PB ALONG 71th AVE AND
1276                KM        BUCKEYE RD.
1277                KM
```

```
1278          RT                          2
              *

1279          KK  RSDPB1
1280          KM   RETURN STORM DRAIN FLOW FROM PB
1281          DR  SD75PB
              *

1282          KK  CPPBS1
              * KO      3                              21
1283          KM    COMBINE STORM DRAIN FLOWS
1284          HC        2    3.99
              *

1285          KK  RSDPB2
1286          KM   RETURN STORM DRAIN FLOW FROM PB
1287          DR  SDBRPB
              *

1288          KK  CPPBS2
              * KO      3                              21
1289          KM    COMBINE STORM DRAIN FLOWS
1290          HC        2
              *

1291          KK  RTPBNA    ROUTE   REACH
1292          KM         ROUTE FLOW FROM PB TO NA IN STORM DRAIN
1293          KM
1294          RT                          2
              *
1                                     HEC-1 INPUT                                          PAGE 37

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


1295          KK  RSDNA1
1296          KM   RETURN DIVERTED STORM DRAIN FLOW FROM NA
1297          DR  SD75NA
              *

1298          KK  CPNAS1
              * KO      3                              21
1299          KM    COMBINE STORM DRAIN FLOWS
1300          HC        2    4.97
              *

1301          KK  RSDNA2
1302          KM   RETURN DIVERTED STORM DRAIN FLOW FROM NA
1303          DR  SDLBNA
              *

1304          KK  CPNAS2
              * KO      3                              21
1305          KM    COMBINE STORM DRAIN FLOWS
```

```
1306          HC       2
              *

1307          KK  RTNAJC   ROUTE   REACH
1308          KM        ROUTE FLOW FROM NA TO JC IN STORM DRAIN
1309          KM
1310          RT                         2
              *

1311          KK  RSDJC1
1312          KM   RETURN DIVERTED STORM DRAIN FLOW FROM JC (75TH AVENUE)
1313          DR  SD75JC
              *

1314          KK  CPJCS1
              * KO     3                              21
1315          KM    COMBINE STORM DRAIN FLOWS
1316          HC       2    5.96
              *
              * KKRSDJC2
              * KM RETURN DIVERTED STORM DRAIN FLOW FROM JC (BROADWAY ROAD)
              * DRSDBRJC
              *

1317          KK  RSDJC3
1318          KM   RETURN DIVERTED STORM DRAIN FLOW FROM JC1 and JC2
1319          DR  SDOSBR
              *
              * KKCPJCS2
              * KO     3                              21
              * KM  COMBINE STORM DRAIN FLOWS
              * HC     2    0.50
              *
```



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

1320          KK  CPJCS3
              * KO     3                              21
1321          KM    COMBINE STORM DRAIN FLOWS
1322          HC       2    5.96
              *

1323          KK  RTJCFB   ROUTE   REACH
1324          KM        ROUTE FLOW FROM JC TO FB ALONG 75th AVE.
1325          KM
1326          RT                         2
              *

1327          KK    FB75
1328          KM   BASIN FB75(ROADWAY DRAINAGE)
1329          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1330          KM    L=       .8  Lca=       .4   S=   10.7  Kn= .020  LAG=  12.4
```

```
1331          KM    PHOENIX VALLEY S-GRAPH WAS USED FOR THIS BASIN
1332          BA     .02
1333          LG     .15     .25    4.70     .25   80.00
1334          UI     11.     32.     52.     29.     10.      3.      2.      0.      0.      0.
1335          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
              *

1336          KK    CPFB
              * KO     3                              21
1337          KM        ADD HYDROGRAPHS AT FB
1338          HC       2    5.98
              *
              * ADDED BY SLT MAR16,2005 TO ELIMINATE ERROR

1339          KK    DUMM
1340          KM        ELIMINATE UNNECESSARY HYDROGRAPHS
1341          HC       3
              *
              *
              * ADDED RETURNS TO ADD TO DDS FOR NEW STUDY  -  SLT  3/03/05
              *
              * KK  SLT1
              * KM      RETURN DIVERT FROM TB
              * DR  DITA
              * ZW A=DURANGO B=SLT1  C=FLOW  E=5MIN F=6-HR
              *
              * KK  SLT2
              * KM      RETURN DIVERT FROM ADMP1
              * DR ADMP1
              * ZW A=DURANGO B=SLT2  C=FLOW  E=5MIN  F=6-HR
              *

1342          KK   SUBSH   BASIN
1343          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1344          KM    L=      .4  Lca=      .2   S=   11.1  Kn= .030  LAG=  11.5
1345          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
1346          BA   0.103
1347          LG    0.15    0.16    9.70    0.07      55
1                                      HEC-1 INPUT                                          PAGE 39

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

1348          UI      72     211     303     147      44      13       8       0       0       0
1349          UI       0       0       0       0       0       0       0       0       0       0
              *

1350          KK   RETSH
1351          KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
1352          DT   RETSH    10.3
1353          DI       0   10000
1354          DQ       0   10000
              *

1355          KK    RSSH
```

```
1356          KM        MODIFIED PULS ROUTING BEHIND RID.
              * KO      1
1357          RS        1    STOR         0         0
1358          SV       19      21        24        30        37        44      46.4
1359          SE   1027.0  1027.1    1027.2    1027.5    1027.7    1028.0    1028.2
1360          SQ        0   138.6     475.2    1277.3
1361          SE   1027.0  1027.6    1027.8    1028.1
              *
              *

1362          KK  DISHRJ
1363          KM   DIVERT FLOW FROM SH TO RJ2
1364          DT   DIRJ2
1365          DI        0   138.6     475.2    1277.3
1366          DQ        0    88.6     375.2    1077.3
              *
              *

1367          KK  RTSHSG    ROUTE     REACH
1368          KM        ROUTE FLOW FROM SH TO SG
1369          KM        TYPE C CHANNEL
1370          RS        8               -1         0
1371          RC    0.035   0.035     0.035      2600    0.0008      0.00
1372          RX      0.0    20.0      35.0      50.0      50.1     250.0     450.0     550.0
1373          RY      5.0     5.0       2.5       0.0       0.0       2.0       4.0       5.0
              *

1374          KK   SUBTA    BASIN
1375          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1376          KM    L=        .8  Lca=        .4   S=   10.5  Kn= .03  LAG=  17.1
1377          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
1378          BA   0.241
1379          LG    0.15     0.15      7.00      0.18        55
1380          UI       71     234       382       523       328       186        76        35        15        14
1381          UI        3       0         0         0         0         0         0         0         0         0
1382          UI        0       0         0         0         0         0         0         0         0         0
              *
```



```
1383          KK   RETTA
1384          KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
1385          DT   RETTA     24.1
1386          DI        0   10000
1387          DQ        0   10000
              *

1388          KK    DRTA
1389          KM        RETURN DIVERT FROM TB
1390          KM        RETURN DIVERT FROM TB
1391          DR    DITA
              * BA      0
```

```
                 * ZR  =QI A=DURANGO B=SLT1  C=FLOW  E=5MIN  F=6-HR
                 *

 1392            KK  RTDITA   ROUTE   REACH
 1393            KM        ROUTE DIVERT TO TA
 1394            KM        TYPE A CHANNEL
 1395            RS        8               -1       0
 1396            RC   0.025   0.025   0.024    2600  0.0004    0.00
 1397            RX     0.0   100.0   400.0   500.0   500.1   600.0   900.0  1000.0
 1398            RY     5.0     4.0     1.0     0.0     0.0     1.0     4.0     5.0
                 *

 1399            KK   @CPTA
 1400            KM        ADD HYDROGRAPHS AT TA
 1401            HC        2    1.13
                 *

 1402            KK  RTTASG   ROUTE   REACH
 1403            KM        ROUTE FLOW FROM TA TO SG (SHEET FLOW).
 1404            KM        TYPE A CHANNEL
 1405            RS        2               -1       0
 1406            RC   0.025   0.025   0.025    2200  0.0050    0.00
 1407            RX     0.0   100.0   400.0   500.0   500.1   600.0   900.0  1000.0
 1408            RY     5.0     4.0     1.0     0.0     0.0     1.0     4.0     5.0
                 *

 1409            KK   SUBSG   BASIN
 1410            KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 1411            KM    L=       .6  Lca=       .3   S=    5.0  Kn= .03  LAG=  16.6
 1412            KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
 1413            BA   0.136
 1414            LG    0.15    0.15    8.80    0.09      55
 1415            UI      43     139     233     294     180      92      40      16       8       8
 1416            UI       0       0       0       0       0       0       0       0       0       0
                 *

 1417            KK   RETSG
 1418            KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
 1419            DT   RETSG    13.6
 1420            DI        0   10000
 1421            DQ        0   10000
                 *
```



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


 1422            KK    CPSG
 1423            KM        ADD HYDROGRAPHS AT SG
 1424            HC        3
                 *

 1425            KK    RSSG
 1426            KM        MODIFIED PULS ROUTING BEHIND RID AND 81ST AVENUE
```

```
                         * KO      1
1427                     RS        1    STOR        0        0
1428                     SV     12.3    13.3     14.9     16.5     18.4     22.4     25.9     35.2
1429                     SE   1026.4  1026.6   1026.8   1027.0   1027.2   1027.4   1027.6   1027.9
1430                     SQ        0       9      114      525     1221     2143     3276     5343
                         *

1431                     KK  DISGRJ
1432                     KM        DIVERT FLOW FROM SG TO RJ
1433                     DT   DIRJ4
1434                     DI        0       9      114      525     1221
1435                     DQ        0       1       70      400      964
                         *

1436                     KK  RTSGSE   ROUTE   REACH
1437                     KM        ROUTE FLOW FROM SG TO SE
1438                     KM        TYPE C CHANNEL
1439                     RS        2                -1        0
1440                     RC    0.035   0.035    0.035     1200   0.0030     0.00
1441                     RX      0.0    20.0     35.0     50.0     50.1    250.0    450.0    550.0
1442                     RY      5.0     5.0      2.5      0.0      0.0      2.0      4.0      5.0
                         *

1443                     KK   SUBSC   BASIN
1444                     KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1445                     KM    L=      1.3  Lca=       .7   S=    15.2  Kn= .029  LAG=  23.9
1446                     KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
1447                     BA   0.453
1448                     LG    0.14    0.26     5.00     0.39       58
1449                     UI       64     229      360      500      758      569      409      284      133       88
1450                     UI       50      19       20       20        6        0        0        0        0        0
1451                     UI        0       0        0        0        0        0        0        0        0        0
                         *

1452                     KK   RETSC
1453                     KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
1454                     DT   RETSC     45.4
1455                     DI        0   10000
1456                     DQ        0   10000
                         *

1457                     KK  DISCSD
1458                     KM        DIVERT 54% OF FLOW AT SC TO SD.
1459                     DT    DISD
1460                     DI        0      25       50      100      150      200
1461                     DQ        0      14       27       54       81      108
                         *
1                                             HEC-1 INPUT                                          PAGE 42

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

1462                     KK  RTSCSE   ROUTE   REACH
1463                     KM        ROUTE FLOW FROM SC TO SE (ALONG 83RD AVENUE).
```

```
1464          KM        FUTURE ARTERIAL SECTION
1465          RS       1               -1        0
1466          RC   0.100    0.023   0.100     1000  0.0022     0.00
1467          RX     0.0      440     445    445.1   575.1    575.2      900  1000.0
1468          RY     105      105     105    99.75   99.75      105      105     105
              *

1469          KK   SUBSE    BASIN
1470          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1471          KM    L=        .3  Lca=       .2    S=    26.5  Kn= .03  LAG=  7.8
1472          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
1473          BA   0.125
1474          LG    0.15     0.25    4.80     0.39      55
1475          UI     185      511     220       40      11        0        0       0       0       0
1476          UI       0        0       0        0       0        0        0       0       0       0
              *

1477          KK   RETSE
1478          KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
1479          DT   RETSE     12.5
1480          DI       0    10000
1481          DQ       0    10000
              *

1482          KK    CPSE
1483          KM        ADD HYDROGRAPHS AT SE
1484          HC       3
              *

1485          KK    RSSE
1486          KM        MODIFIED PULS ROUTING AT SE BEHIND THE RID CANAL
              * KO     1
1487          RS       1     STOR       0        0
1488          SV    13.5     14.8    17.6     20.5
1489          SE  1025.9   1026.0  1026.5   1026.9
1490          SQ    3.14     14.3  479.44  2013.01
              *

1491          KK  DISERJ
1492          KM   DIVERT FLOW FROM SE TO RJ
1493          DT   DIRJ5
1494          DI       0        3     142     1100
1495          DQ       0        3     142     1100
              *

1496          KK  RTSERI   ROUTE   REACH
1497          KM        ROUTE FLOW FROM SE TO RI
1498          KM        TYPE A CHANNEL
1499          RS       4               -1        0
1500          RC   0.035    0.035   0.035     2000  0.0019     0.00
1501          RX     0.0    100.0   400.0    500.0   500.1    600.0    900.0  1000.0
1502          RY     5.0      4.0     1.0      0.0     0.0      1.0      4.0     5.0
              *
```

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


1503           KK   SUBRJ   BASIN
1504           KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1505           KM    L=       .7  Lca=       .4   S=     5.6  Kn= .03  LAG=  19.8
1506           KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
1507           BA   0.163
1508           LG    0.15    0.15    7.00    0.18      55
1509           UI      33     122     184     307     254     170      98      46      25       8
1510           UI       9       7       0       0       0       0       0       0       0       0
1511           UI       0       0       0       0       0       0       0       0       0       0
               *

1512           KK   RETRJ
1513           KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
1514           DT   RETRJ    16.3
1515           DI       0   10000
1516           DQ       0   10000
               *

1517           KK   CPRJ2
1518           KM        RETURN DIVERSION FROM SH
1519           DR   DIRJ2
               *

1520           KK  RTSHRJ   ROUTE   REACH
1521           KM        ROUTE HYDROGRAPH FROM SH TO RJ2
1522           KM        TYPE C CHANNEL
1523           RS       7              -1       0
1524           RC   0.050   0.050   0.050    2000  0.0015    0.00
1525           RX     0.0    20.0    35.0    50.0    50.1   250.0   450.0   550.0
1526           RY     5.0     5.0     2.5     0.0     0.0     2.0     4.0     5.0
               *

1527           KK  RTRJ3    ROUTE   REACH
1528           KM        ROUTE HYDROGRAPH FROM RJ3 TO RJ
1529           KM        TYPE C CHANNEL
1530           RS       8              -1       0
1531           RC   0.035   0.035   0.035    3900  0.0015    0.00
1532           RX     0.0    20.0    35.0    50.0    50.1   250.0   450.0   550.0
1533           RY     5.0     5.0     2.5     0.0     0.0     2.0     4.0     5.0
               *

1534           KK  CPRJ4A
1535           KM        RETURN DIVERT FROM SG
1536           DR   DIRJ4
               *

1537           KK  CPRJ4B
1538           KM        COMBINE HYDROGRAPHS AT RJ4
1539           HC       2     .39
               *
```

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

                *
1540            KK  RTSGRJ   ROUTE   REACH
1541            KM        ROUTE DIVERT FROM SG TO RJ
1542            KM        TYPE C CHANNEL
1543            RS       3              -1       0
1544            RC   0.035   0.035   0.035    1400  0.0019    0.00
1545            RX     0.0    20.0    35.0    50.0    50.1   250.0   450.0   550.0
1546            RY     5.0     5.0     2.5     0.0     0.0     2.0     4.0     5.0
                *

1547            KK   CPRJ5
1548            KM        RETURN DIVERT FROM SE
1549            DR   DIRJ5
                *

1550            KK  RTSERJ   ROUTE   REACH
1551            KM        ROUTE DIVERT FROM SE TO RJ
1552            KM        TYPE C CHANNEL
1553            RS       9              -1       0
1554            RC   0.035   0.035   0.035    1000  0.0001    0.00
1555            RX     0.0    20.0    35.0    50.0    50.1   250.0   450.0   550.0
1556            RY     5.0     5.0     2.5     0.0     0.0     2.0     4.0     5.0
                *

1557            KK  @CPRJ6
1558            KM        ADD HYDROGRAPHS AT RJ
1559            HC       3    3.81
                *

1560            KK    RSRJ
1561            KM        RESERVOIR ROUTING AT RJ BEHIND 83RD AVE AND THE SPRR
                * KO     1
1562            RS       1    STOR       0       0
1563            SV     3.5     6.2    11.0    18.4    30.9    52.2    76.3
1564            SE  1022.1  1022.5  1023.0  1023.5  1024.0  1024.5  1024.9
1565            SQ       0      50     100     506     899    1369
1566            SE  1022.1  1022.7  1022.9  1023.7  1024.0  1024.2
                *

1567            KK  DIRJPA
1568            KM   DIVERT FLOW OVER SPRR FROM RJ TO PA
1569            DT   DIPA2
1570            DI       0      50     100     506     899    1369
1571            DQ       0       0       0       6     149     369
                *

1572            KK  RTRJRI   ROUTE   REACH
1573            KM        ROUTE FLOW FROM RJ TO RI1
1574            KM        TYPE C CHANNEL
```

```
1575            RS       5                -1       0
1576            RC   0.035    0.035    0.035    2600  0.0019     0.00
1577            RX     0.0     20.0     35.0    50.0    50.1    250.0    450.0    550.0
1578            RY     5.0      5.0      2.5     0.0     0.0      2.0      4.0      5.0
                *
                * THE FOLLOWING DIVERT REMOVED TO MODEL THE ADMP CONDITION
                * KKDIRIOE
                * KM DIVERT FLOW FROM RI TO OE OVER SPRR.
                * KM 1/4 MILE WEST OF 83RD AVE.
                * DT DIOE3
                * DI   100      400     1392    1300    1400
                * DQ     0       55      370     680     730
                *
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LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


1579            KK  RTRIRI
1580            KM   TYPE C CHANNEL
1581            RS       4                -1       0
1582            RC    .035     .035     .035    1550   .0019
1583            RX       0       20       35      50    50.1      250      450      550
1584            RY       5        5      2.5       0       0        2        4        5
                *

1585            KK   SUBRI   BASIN
1586            KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1587            KM    L=       .6  Lca=       .2   S=   19.3  Kn= .03  LAG=  10.6
1588            KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
1589            BA   0.232
1590            LG    0.15     0.15     7.60    0.14      55
1591            UI     193      596      651     255      72       23        7        0        0        0
1592            UI       0        0        0       0       0        0        0        0        0        0
                *

1593            KK   RETRI
1594            KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
1595            DT   RETRI     23.2
1596            DI       0    10000
1597            DQ       0    10000
                *

1598            KK   SUBSB   BASIN
1599            KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1600            KM    L=       .5  Lca=       .3   S=   15.1  Kn= .03   LAG=  12.3
1601            KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
1602            BA   0.168
1603            LG    0.15     0.15     9.70    0.07      55
1604            UI     102      299      486     271      95       30       14        5        0        0
1605            UI       0        0        0       0       0        0        0        0        0        0
                *

1606            KK   RETSB
```

```
1607          KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
1608          DT   RETSB    16.8
1609          DI       0   10000
1610          DQ       0   10000
              *

1611          KK    RSSB
1612          KM         MODIFIED PULS ROUTING THROUGH PONDING  BEHIND RID CANAL.
              * KO     1
1613          RS       1    STOR       0       0
1614          SV     2.2     5.6    11.9    21.4    33.8
1615          SE  1024.0  1024.5  1025.0  1025.5  1025.9
1616          SQ       0      94     581    2114    4864
              *
1                                        HEC-1 INPUT                                              PAGE 46

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


1617          KK   SUBSD   BASIN
1618          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1619          KM    L=        .6  Lca=       .3    S=   12.3  Kn= .03  LAG=  14.4
1620          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
1621          BA   0.168
1622          LG    0.15    0.28    6.60    0.18      55
1623          UI      73     222     410     319     173      61      24      12       7       0
1624          UI       0       0       0       0       0       0       0       0       0       0
              *

1625          KK   RETSD
1626          KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
1627          DT   RETSD    16.8
1628          DI       0   10000
1629          DQ       0   10000
              *

1630          KK    DRSD
1631          KM    RETURN DIVERT FROM SC.
1632          DR    DISD
              *

1633          KK   @CPSD
1634          KM        ADD HYDROGRAPHS AT SD.
1635          KM        ROUTING STEP NOT INCLUDED DUE TO SHORT ROUTING LENGTH
1636          HC       3     .79
              *

1637          KK    RSSD
1638          KM        MODIFIED PULS ROUTING BEHIND CANAL, NORTH OF VAN BUREN.
              * KO     1
1639          RS       1    STOR       0       0
1640          SV       0     .01      .1      .6     1.8       5       9      14      23
1641          SE  1021.4  1022.8    1023  1023.3  1023.6    1024  1024.3  1024.6    1025
1642          SQ       0     .16      46     534     939    1427    1993    2767
```

```
1643          SE  1021.4  1021.5    1022    1023  1023.5    1024  1024.5    1025
              *

1644          KK  RTSDRI   ROUTE   REACH
1645          KM        ROUTE FLOW FROM SD TO RI
1646          KM        TYPE A CHANNEL
1647          RS       3              -1       0
1648          RC   0.035   0.035   0.035    2400  0.0046    0.00
1649          RX     0.0   100.0   400.0   500.0   500.1   600.0   900.0  1000.0
1650          RY     5.0     4.0     1.0     0.0     0.0     1.0     4.0     5.0
              *

1651          KK  ~@CPRI
1652          KM   ADD HYDROGRAPHS AT RI (1/2 MILE WEST OF 83RD AVE)
1653          HC       4    4.38
              *
              * THE FOLLWOING PONDING REMOVED TO MODEL THE ADMP CONDITION
              * KK  RSRI
              * KM      MODIFIED PULS ROUTING BEHIND SPRR.
              * KO      1
              * RS      1    STOR      -1       0
              * SV      0       0      .1      .3     1.2     3.0     6.5   13.76    21.8     35
              * SE1014.0  1014.1  1014.5  1015.0  1015.5  1016.0  1016.5  1017.0  1017.5   1018
              * SQ      0       4     142     573    1333    3217    5957    9319   13343    182
              *
```



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

1654          KK  MCRIRH   ROUTE   REACH
1655          KM   ADMP CHANNEL
1656          KM   ROUTE FLOW FROM RI TO RH
1657          RS       3    FLOW      -1
1658          RC   0.040   0.040   0.040    2482  0.0015    0.00
1659          RX     0.0    16.0    33.7    51.3    71.3    89.0   106.7   122.7
1660          RY     5.6     5.9     3.0     0.0     0.0     3.0     5.9     5.6
              *
              * ****************************************************************************
              *

1661          KK   SUBPA   BASIN
1662          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1663          KM    L=       1.1  Lca=        .6   S=   16.7  Kn= .03    LAG=  21.5
1664          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
1665          BA   0.477
1666          LG    0.15    0.17    7.30    0.14      55
1667          UI      76     307     461     716     812     547     372     178     105      54
1668          UI      23      23      19       0       0       0       0       0       0       0
1669          UI       0       0       0       0       0       0       0       0       0       0
              *

1670          KK   RETPA
1671          KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
```

```
1672            DT   RETPA    47.8
1673            DI       0   10000
1674            DQ       0   10000
                *

1675            KK   DRPA2
1676            KM   RETURN DIVERT FROM RJ.
1677            DR   DIPA2
                *

1678            KK  RTRJPA   ROUTE   REACH
1679            KM        ROUTE DIVERT FROM RJ TO PA
1680            KM        FUTURE ARTERIAL SECTION
1681            RS       2             -1       0
1682            RC   0.100   0.023   0.100    2400  0.0054    0.00
1683            RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
1684            RY     105     105     105   99.75   99.75     105     105     105
                *

1685            KK    CPPA
1686            KM   ADD HYDROGRAPHS AT PA
1687            HC       2
                *

1688            KK  DIPAOE
1689            KM        DIVERT 18% OF FLOW AT PA TO OE.
1690            DT    DIOE
1691            DI       0      25      50      75     100     150     200
1692            DQ       0       5       9      14      18      27      36
                *
```



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

1693            KK  RTPAMH   ROUTE   REACH
1694            KM        ROUTE FLOW FROM PA TO MH (ALONG 83RD AVENUE).
1695            KM        FUTURE ARTERIAL SECTION
1696            RS       2             -1       0
1697            RC   0.100   0.023   0.100    2640  0.0012    0.00
1698            RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
1699            RY     105     105     105   99.75   99.75     105     105     105
                *

1700            KK   SUBMH   BASIN
1701            KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1702            KM    L=       .7  Lca=       .3   S=    8.8  Kn= .05  LAG=  19.7
1703            KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
1704            BA   0.239
1705            LG    0.25    0.15    8.80    0.09      30
1706            UI      49     179     272     452     372     249     141      66      36      13
1707            UI      12      10       0       0       0       0       0       0       0       0
                *
```

```
1708          KK   RETMH
1709          KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
1710          DT   RETMH    19.8
1711          DI       0   10000
1712          DQ       0   10000
              *

1713          KK    CPMH
1714          KM    ADD HYDROGRAPHS AT MH
1715          HC       2
              *

1716          KK  RTMHMD   ROUTE   REACH
1717          KM        ROUTE FLOW FROM PA TO MD (ALONG 83RD AVENUE).
1718          KM        FUTURE ARTERIAL SECTION
1719          RS       2              -1       0
1720          RC   0.100   0.023   0.100    2640  0.0012    0.00
1721          RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
1722          RY     105     105     105   99.75   99.75     105     105     105
              *

1723          KK   SUBMD   BASIN
1724          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1725          KM    L=       1.4  Lca=       .6    S=    14.3  Kn= .05  LAG=  41.7
1726          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
1727          BA   0.255
1728          LG    0.25    0.08    7.60    0.11      30
1729          UI      21      24      73     100     119     142     175     247     234     185
1730          UI     156     127     106      80      47      35      30      21      15       6
1731          UI       6       6       6       6       6       0       0       0       0       0
              *
```



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

1732          KK   RETMD
1733          KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
1734          DT   RETMD    21.1
1735          DI       0   10000
1736          DQ       0   10000
              *

1737          KK    CPMD
1738          KM        ADD HYDROGRAPHS AT MD
1739          HC       2
              *

1740          KK  DIMDJB
1741          KM        DIVERT 21% OF FLOW FROM MD TO JB.
1742          DT   DIJB1
1743          DI       0      25      50      75     100     150     200
1744          DQ       0       5      10      16      21      32      42
              *
```

```
1745            KK  DIMDMF
1746            KM   DIVERT FLOW FROM MD TO MF
1747            KM   DUMMY DIVERT TO ROUTE FLOW AROUND CODE SEQUENCE.
1748            DT   DIMFX
1749            DI       0   10000
1750            DQ       0   10000
                *

1751            KK   SUBMI   BASIN
1752            KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1753            KM    L=        .7  Lca=        .3   S=    8.8  Kn= .043  LAG=  16.9
1754            KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
1755            BA   0.409
1756            LG    0.21    0.15    8.40    0.11      38
1757            UI     122     402     662     886     553     306     126      57      25      25
1758            UI       3       0       0       0       0       0       0       0       0       0
                *

1759            KK   RETMI
1760            KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
1761            DT   RETMI    35.3
1762            DI       0   10000
1763            DQ       0   10000
                *

1764            KK   SUBMG   BASIN
1765            KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1766            KM    L=        .7  Lca=        .3   S=    8.8  Kn= .04   LAG=  11.7
1767            KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
1768            BA   0.082
1769            LG    0.20    0.15    7.00    0.17      43
1770            UI      55     162     241     120      37      11       7       0       0       0
                *
```



```
1771            KK   RETMG
1772            KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
1773            DT   RETMG     7.3
1774            DI       0   10000
1775            DQ       0   10000
                *

1776            KK    CPMG
1777            KM   COMBINE FLOWS FROM MI AND MG.
1778            HC       2
                *

1779            KK  RTMGJB   ROUTE   REACH
1780            KM        ROUTE FLOW FROM MG TO JB1 (ACROSS SUB JB1).
1781            KM        TYPE B    CHANNEL
```

```
1782            KM        ROUTE ADDED, JEP 5/10/01
1783            RS       9              -1        0
1784            RC   0.035    0.035    0.035     5050  0.0024     0.00
1785            RX     0.0    100.0    400.0    500.0   500.1    600.0    900.0  1000.0
1786            RY     5.0      4.0      1.0      0.0     0.0      1.0      4.0     5.0
                *
                * KK~CNAMG
                * KM COMBINE FLOWS FROM NA AND MG INTO ADMP CHANNEL
                * HC     3
                *
                * KKMCMGJB   ROUTE    REACH
                * KM ADMP CHANNEL
                * RS     3     FLOW      -1
                * RC 0.040    0.040    0.040     4374  0.0029     0.00
                * RX   0.0     16.0     33.9     51.9    86.9    104.8    122.8   138.8
                * RY   5.7      6.0      3.0      0.0     0.0      3.0      6.0     5.7
                *

1787            KK  SUBJB1   BASIN
1788            KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1789            KM    L=       1.3  Lca=       .7    S=   17.4  Kn= .050  LAG=  39.7
1790            KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
1791            BA   0.494
1792            LG    0.25     0.25     5.00     0.41      30
1793            UI      42       58      157      209     250      303      397      524      425      348
1794            UI     286      233      186      117      73       67       42       35       13       13
1795            UI      13       13       13        9       0        0        0        0        0        0
                *

1796            KK  RETJB1
1797            KM   RETENTION MODIFIED FROM 80% REQUIRED TO FIRST FLUSH FOR DETENTION BASIN ROUTI
1798            KM   DIVERT 80% OF FIRST FLUSH 1/2" RETENTION OUT OF MODEL - JCS
1799            DT  RETJB1     10.5
1800            DI       0    10000
1801            DQ       0    10000
                *
```



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


1802            KK    DRJB
1803            KM   RETURN DIVERT FROM MD
1804            DR   DIJB1
                *

1805            KK  RDIJB1
1806            KM   ROUTE DIVERT FROM MD TO JB
1807            KM   FUTURE ARTERIAL SECTION
1808            RS       4              -1        0
1809            RC      .1    0.023       .1     2640   .0030
1810            RX     0.0      440      445    445.1   575.1    575.2      900  1000.0
1811            RY     105      105      105    99.75   99.75      105      105     105
                *
```

```
1812          KK   ADMP1
1813          KM   RETURN DIVERT FROM 75TH SD MODEL  - SLT 3/9/2005
1814          KM        RETURN DIVERT FROM ADMP1
1815          DR   ADMP1
              * BA     0
              * ZR  =QI A=DURANGO B=SLT2  C=FLOW  E=5MIN
              *

1816          KK  MCJCJB
1817          KM   ROUTE      REACH
1818          KM   MASTER CHANNEL ROUTE FROM JC1 TO JB1
1819          KM   ASSUME FLOW OVER RETENTION BASINS AS IS CURRENT DEVELOPED CONDITION
1820          RS       6    FLOW      -1
1821          RC   0.040   0.040   0.040    5964  0.0015    0.00
1822          RX     0.0       0       0       0     250     250     250     250
1823          RY      10       0       0       0     0.0       0       0      10
              *

1824          KK  ~CPJB1
1825          KM   COMBINE FLOWS FROM MD, JC1, MG AND JB1 INTO ADMP CHANNEL
1826          KM   COMBINE ADDED, JEP 5/10/01
1827          HC       5    9.37
              *

1828          KK   RRJB1
1829          KM   MODIFIED PULS ROUTING
1830          KM   DETENTION IN DRCC RIGHT OF WAY AT JB1 (83RD AVENUE) POL
1831          KM   BASIN 6 FEET DEEP, 850 FEET LONG 165 FOOT BOTTOM 250 FOOT TOP
1832          KM   ASSUME 1 FOOT WEIR OVER THE ROAD
1833          KM   CULVERT IS 1 CELL 4 BY 8
1834          RS       1    STOR       0       0
1835          SV       0     3.4    24.2    29.1
1836          SQ       0      18     308    1094
              *
1                                  HEC-1 INPUT                                   PAGE 52

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


1837          KK    DIED
1838          KM   DIVERT FLOWS AT JB TO ED.  THIS IS DONE TO ROUTE FLOW AS NEEDED
1839          KM   FOR THE ADMP
1840          DT    DIED
1841          DI       0   10000
1842          DQ       0   10000
              *
              *
              *

1843          KK   SUBOE   BASIN
1844          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1845          KM    L=      1.1  Lca=       .6   S=   17.3  Kn= .03  LAG=  20.8
1846          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
```

```
1847            BA   0.469
1848            LG    0.15     0.23     6.20     0.24       55
1849            UI      84      321      482      784      767      519      338      150       92       38
1850            UI      23       23       10        0        0        0        0        0        0        0
1851            UI       0        0        0        0        0        0        0        0        0        0
                *

1852            KK   RETOE
1853            KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
1854            DT   RETOE     47.0
1855            DI       0    10000
1856            DQ       0    10000
                *
                * REMOVED BY JCS
                * KK RETOE
                * KM DIVERT RETENTION OUT OF MODEL DUE TO WILLAMETTE IND. DEVELOPMENT. -DCF
                * KM TOTAL RETENTION IS 5.3 AF. 80% OF THAT IS USED HERE. -DCF
                * DT RETOE      4.2
                * DI       0    10000
                * DQ       0    10000
                *

1857            KK   CPOE1
1858            KM   RETURN DIVERT FROM PA.
1859            DR    DIOE
                *

1860            KK  RTDIOE   ROUTE   REACH
1861            KM   ROUTE DIVERT FROM PA TO OE
1862            KM   FUTURE ARTERIAL SECTION
1863            RS       7                -1        0
1864            RC   0.100    0.023    0.100     5000   0.0013     0.00
1865            RX     0.0      440      445    445.1    575.1    575.2      900   1000.0
1866            RY     105      105      105    99.75    99.75      105      105      105
                *
                * THE FOLLOWING RETURNS REMOVED TO MODEL THE ADMP CONDITION.
                * KK CPOE2
                * KM RETURN DIVERT FROM RH
                * DR DIOE2
                *
                * KK CPOE3
                * KM RETURN DIVERT FROM RI
                * DR DIOE3
                *
```



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

1867            KK   @CPOE
1868            KM        ADD HYDROGRAPHS AT OE
1869            HC       2      .47
                *
```

```
1870          KK  DIOEOD
1871          KM   DIVERT 17% OF FLOW FROM OE2 TO OD
1872          DT    DIOD
1873          DI       0      25      50      75     100     150     200
1874          DQ       0       4       9      12      17      26      34
              *

1875          KK  RTOEMF   ROUTE   REACH
1876          KM   ROUTE FLOW FROM OE TO MF.
1877          KM   FUTURE ARTERIAL SECTION
1878          RS       4              -1       0
1879          RC   0.100   0.023   0.100    5200  0.0021    0.00
1880          RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
1881          RY     105     105     105   99.75   99.75     105     105     105
              *

1882          KK   SUBMF   BASIN
1883          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1884          KM    L=      1.4  Lca=       .7   S=   12.9  Kn= .050  LAG=  44.0
1885          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
1886          BA   0.971
1887          LG    0.25    0.15    8.40    0.10      30
1888          UI      74      74     256     341     414     483     581     777     936     739
1889          UI     619     520     429     362     256     153     125     105      74      56
1890          UI      23      23      23      22      22      22       6       0       0       0
              *

1891          KK   RETMF
1892          KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
1893          DT   RETMF    80.3
1894          DI       0   10000
1895          DQ       0   10000
              *

1896          KK    CPMF
1897          KM        RETURN ROUTING DIVERT FROM MD (DIMFX).
1898          DR   DIMFX
              *
              *

1899          KK  RTMDMF   ROUTE   REACH
1900          KM        ROUTE FLOW FROM MD TO MF (ALONG LOWER BUCKEYE ROAD).
1901          KM        FUTURE ARTERIAL SECTION
1902          RS       6              -1       0
1903          RC   0.100   0.023   0.100    5200  0.0015    0.00
1904          RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
1905          RY     105     105     105   99.75   99.75     105     105     105
              *
              *
```

```
KK   CPMF1
KM        ADD HYDROGRAPHS AT MF
HC        3
*

KK  DIMFEB
KM        DIVERT 47% OF FLOW AT MF TO EB.
DT    DIEB
DI        0       25       50       75      100      150      200
DQ        0       12       23       35       47       71       94
*

KK  RTMFMC    ROUTE    REACH
KM        ROUTE FLOW FROM MF TO MC (ALONG LOWER BUCKEYE ROAD).
KM        FUTURE ARTERIAL SECTION
RS        5                -1        0
RC   0.100    0.023    0.100     5200   0.0015     0.00
RX     0.0      440      445    445.1    575.1    575.2      900   1000.0
RY     105      105      105    99.75    99.75      105      105      105
*

KK   SUBOD    BASIN
KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
KM    L=       1.1  Lca=        .6    S=    18.2  Kn= .030  LAG=  20.6
KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
BA   0.509
LG    0.15     0.15     9.70     0.07       55
UI      94      354      533      874      825      556      357      157       97       37
UI      25       26        7        0        0        0        0        0        0        0
UI       0        0        0        0        0        0        0        0        0        0
*

KK   RETOD
KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
DT   RETOD     63.7
DI       0    10000
DQ       0    10000
*

KK    DROD
KM    RETURN DIVERT FROM OE.
DR    DIOD
*

KK  RTDIOD  ROUTE   REACH
KM   FUTURE ARTERIAL SECTION
RS       4                 -1        0
RC   0.100    0.023    0.100     2700   0.0013     0.00
RX     0.0      440      445    445.1    575.1    575.2      900   1000.0
RY     105      105      105    99.75    99.75      105      105      105
*
* THE FOLLOWING RETURNS REMOVED TO MODEL THE ADMP CONDITION
* KK DROD2
* KM  RETURN DIVERT FROM OG1
```

```
                    * DR DIOD1
                    *
                    * KK DROD3
                    * KM      RETURN DIVERT FROM OG2.
                    * DR DIOD2
                    *
```



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

 1944          KK    CPOD
 1945          KM   ADD HYDROGRAPHS AT OD.
 1946          HC       2
               *

 1947          KK  DIODOC
 1948          KM       DIVERT 18% OF FLOW FROM OD TO OC.
 1949          DT    DIOC
 1950          DI       0      25      50      75     100     150     200
 1951          DQ       0       5       9      14      18      27      36
               *

 1952          KK  RTODMC   ROUTE   REACH
 1953          KM   ROUTE FLOW FROM OD TO MC.
 1954          KM   FUTURE ARTERIAL SECTION
 1955          RS       5              -1       0
 1956          RC   0.100   0.023   0.100    5200  0.0023    0.00
 1957          RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
 1958          RY     105     105     105   99.75   99.75     105     105     105
               *

 1959          KK   SUBMC   BASIN
 1960          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 1961          KM    L=      1.4  Lca=       .7   S=   13.6  Kn= .035  LAG=  30.5
 1962          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
 1963          BA   0.999
 1964          LG    0.18    0.15    8.80    0.09      59
 1965          UI     110     271     519     667     869    1308    1136     873     663     506
 1966          UI     275     187     126      81      34      34      34      34       7       0
               *

 1967          KK   RETMC
 1968          KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
 1969          DT   RETMC    95.4
 1970          DI       0   10000
 1971          DQ       0   10000
               *

 1972          KK   CPMC1
 1973          KM        ADD HYDROGRAPHS AT MC
 1974          HC       3
               *
```

```
1975          KK  DIMCMB
1976          KM        DIVERT 39% OF FLOW AT MC TO MB.
1977          DT    DIMB
1978          DI       0      25      50      75     100     150     200
1979          DQ       0       8      20      29      39      59      78
              *
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1980          KK  RTMCIE   ROUTE   REACH
1981          KM        ROUTE FLOW FROM MC TO IE (ALONG 99TH AVENUE).
1982          KM        FUTURE ARTERIAL SECTION
1983          RS       1              -1       0
1984          RC   0.100   0.023   0.100    2000  0.0030    0.00
1985          RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
1986          RY     105     105     105   99.75   99.75     105     105     105
              *

1987          KK  DIMCIE
1988          KM        DIVERT FLOW FOR LATER RECOMBINING
1989          DT    MCIE
1990          DI       0   10000
1991          DQ       0   10000
              *

1992          KK    DREB
1993          KM   RETURN DIVERT FROM MF TO EB
1994          DR    DIEB
              *

1995          KK   SUBEB   BASIN
1996          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1997          KM    L=       .5  Lca=       .3   S=   11.3  Kn= .050  LAG=  22.1
1998          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
1999          BA   0.139
2000          LG    0.25    0.21    6.40    0.23      30
2001          UI      21      85     127     192     240     164     114      60      34      19
2002          UI       6       6       6       1       0       0       0       0       0       0
              *

2003          KK   RETEB
2004          KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
2005          DT   RETEB    11.5
2006          DI       0   10000
2007          DQ       0   10000
              *

2008          KK    CPEB
2009          HC       2
              *

2010          KK   RDIED
```

```
2011          KM   RETURN DIVERT FROM JB1 TO ED1
2012          DR    DIED
              *

2013          KK  RJBED1   ROUTE   REACH
2014          KM        ROUTE FLOW ALONG DRCC ALIGNMENT FROM 83RD TO IRRIGATION CANAL
2015          KM   ROUTING IS OVER EXISTING RETENTION BASINS 250 FOOT WIDTH
2016          RS       7                -1       0
2017          RC   0.040   0.040   0.040    2563  0.0007    0.00
2018          RX     0.0       0       0       0     250     250     250     250
2019          RY      10       1       1     1.0     1.0       1       1      10
              *
1                                          HEC-1 INPUT                                          PAGE 57

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


2020          KK  RJBED2   ROUTE   REACH
2021          KM        ROUTE FLOW ALONG DRCC ALIGNMENT FROM IRRIGATION CANAL TO 91ST
2022          KM    ROUTING IS OVER EXISTING RETENTION BASINS MEASURED AT 420 FOOT WIDTH
2023          KM    NEW DEVELOPMENT STILL BEING GRADED AT TIME OF THIS RUN 1-22-2006
2024          RS       7                -1       0
2025          RC   0.040   0.040   0.040    2563  0.0007    0.00
2026          RX     0.0       0       0       0     420     420     420     420
2027          RY      10       1       1     1.0     1.0       1       1      10
              *

2028          KK  SUBED1   BASIN
2029          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2030          KM    L=       1.2  Lca=       .6    S=     9.4  Kn= .050  LAG=  42.1
2031          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2032          BA   0.382
2033          LG    0.25    0.25    5.70    0.31      30
2034          UI      30      35     108     147     174     208     254     357     356     280
2035          UI     237     193     161     127      75      53      49      30      27       9
2036          UI       9       9       9       9       9       2       0       0       0       0
              *

2037          KK  RETED1
2038          KM   RETENTION
2039          KM   DIVERT FIRST FLUSH AND A PORTION OF 100-YEAR 2-HOUR RETENTION
2040          KM   PORTION OF ED1 UPSTREAM OF IRRIGATION CANAL ASSUMED 100-YEAR-2HOUR RETENTION
2041          KM   PORTION OF ED1 DOWNSTREAM OF IRRIGATION CANAL ASSUMED FIRST FLUSH ONLY
2042          KM   DOWNSTREAM 100-YEAR 2-HOUR RETENTION WOULD BE REMOVED BY INSTALLING 10-YEAR
2043          KM   CULVERT AT 91ST AVENUE
2044          DT  RETED1    19.9
2045          DI       0   10000
2046          DQ       0   10000
              *

2047          KK  SUBED2   BASIN
2048          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2049          KM    L= 0.6    Lca=  .3     S=    9.4      Kn= .050     LAG=  24.5
2050          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
```

```
2051        BA   0.114
2052        LG    0.30    0.25    5.70    0.31      15
2053        UI      16      54      87     118     184     146     107      76      38      24
2054        UI      15       5       5       5       3       0       0       0       0       0
            *

2055        KK  RETED2
2056        KM   RETENTION
2057        KM   DIVERT 80% OF 100-YEAR 2-HOUR  RETENTION OUT OF MODEL - JCS
2058        DT  RETED2     7.5
2059        DI       0   10000
2060        DQ       0   10000
            *
```



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


2061        KK  CPED1
2062        KM   ADD HYDROGRAPHS AT ED1
2063        HC       2
            *

2064        KK  ~CPED1
2065        KM   ADD HYDROGRAPHS AT ED1
2066        HC       2
            *

2067        KK  ~CPED2
2068        KM   COMBINE FLOW FROM EB & ED WITH FLOW FROM MF DIVERSION
2069        HC       2
            *

2070        KK  RRED
2071        KM   MODIFIED PULS ROUTING
2072        KM   DETENTION IN DRCC RIGHT OF WAY AT ED1 (91ST AVENUE)  POL
2073        RS       1    STOR       0       0
2074        SV       0    11.7    16.4
2075        SQ       0     333    1180
            *

2076        KK  RT95  ROUTE   REACH
2077        KM        ROUTE FLOW ALONG DRCC ALIGNMENT FROM 91ST TO 95TH BASIN
2078        RS       1              -1       0
2079        RC   0.032   0.032   0.032    3828  0.0015    0.00
2080        RX     0.0       0       0      23      45      66      66      66
2081        RY       7       7       7     0.0     0.0       7       7       7
            *

2082        KK  95BASIN
2083        KM   MODIFIED PULS ROUTING
2084        KM   DETENTION IN 95BSN
2085        KM   BASIN IS 15 ACRE BOTTOM WIDTH WITH 6TO1 SIDES
2086        KM   BASIN BOTTOM IS FLUSH WITH ADJACENT CHANNEL BOTTOM
```

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2087     KM   A SINGLE 4 BY 9 CULVERT IN THE CHANNEL CONTROLS OUTFLOW
2088     KM   MAXIMUM CULVERT HEADWATER AND PONDING DEPTH IN THE BASIN IS 5 FEET
2089     RS       1    STOR       0       0
2090     SV       0      47      81
2091     SQ       0     206     300
         *

2092     KK  RT99  ROUTE   REACH
2093     KM        ROUTE FLOW ALONG DRCC ALIGNMENT FROM 95TH TO 99TH
2094     RS       1              -1       0
2095     RC   0.032   0.032   0.032    1389  0.0027    0.00
2096     RX     0.0       0       0      23      45      66      66      66
2097     RY       7       7       7     0.0     0.0       7       7       7
         *
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LINE     ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2098     KK  SUBID1   BASIN
2099     KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2100     KM    L=  1.0     Lca=  .4      S= 7.1      Kn= .05     LAG=  35.0
2101     KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2102     BA   0.204
2103     LG    0.25    0.15    8.00    0.11      30
2104     UI      20      37      82     107     131     170     242     199     159     126
2105     UI     101      71      38      32      20      15       6       6       6       6
2106     UI       6       0       0       0       0       0       0       0       0       0
2107     UI       0       0       0       0       0       0       0       0       0       0
         *

2108     KK  RETID1
2109     KM   RETENTION
2110     KM   DIVERT 80% OF 100-YEAR 2 HOUR RETENTION
2111     KM   NO EXPECTED PROJECT-RELATED CHANGE IN RETENTION AS A RESULT OF THIS PROJECT
2112     DT  RETID1    16.9
2113     DI       0   10000
2114     DQ       0   10000
         *

2115     KK  SUBID2   BASIN
2116     KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2117     KM    L=   1.0     Lca=  .4       S=  7.1      Kn= .05     LAG=  35.0
2118     KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2119     BA   0.359
2120     LG    0.25    0.25    4.90    0.40      30
2121     UI      34      65     145     188     231     298     426     351     280     222
2122     UI     177     124      67      57      36      26      11      10      11      10
2123     UI      10       0       0       0       0       0       0       0       0       0
2124     UI       0       0       0       0       0       0       0       0       0       0
         *

2125     KK  RETID2
2126     KM   RETENTION
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2127           KM   DIVERT 80% OF 100-YEAR 2 HOUR RETENTION
2128           KM   NO EXPECTED PROJECT-RELATED CHANGE IN RETENTION AS A RESULT OF THIS PROJECT
2129           DT  RETID2    29.7
2130           DI       0   10000
2131           DQ       0   10000
               *

2132           KK   SUBIE   BASIN
2133           KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2134           KM    L=        .8  Lca=        .4   S=     6.0  Kn= .05   LAG=  34.3
2135           KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2136           BA   0.302
2137           LG    0.25    0.15    8.80    0.09      30
2138           UI      30      58     126     164     203     267     368     289     232     181
2139           UI     137     135     135     132     113     115     126      84      88      87
2140           UI     146      93      51      44      30      16       9       9       9       9
2141           UI       5       0       0       0       0       0       0       0       0       0
               *
1                                        HEC-1 INPUT                                                    PAGE 60

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


2142           KK   RETIE
2143           KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
2144           DT   RETIE     25.0
2145           DI       0   10000
2146           DQ       0   10000
               *

2147           KK  DRMCIE
2148           KM   RETURN DIVERT MCIE
2149           DR    MCIE
               *

2150           KK  ~CPID2
2151           HC       4
               *

2152           KK   RRID1
2153           KM   MODIFIED PULS ROUTING
2154           KM   DETENTION IN DRCC RIGHT OF WAY AT ID1 (99TH AVENUE)  POL
2155           KM   OUTFLOW BASED ON AN EXISTING 2 CELL 4 BY 10 CULVERT AT 99TH AVENUE
2156           KM   MAXIMUM HEADWATER IS 6 FEET WITHOUT OVERFLOW
2157           KM   ASSUME 1 FOOT OVERFLOW
2158           KM   STORAGE BASED ON EXISTING CHANNEL 20 FOOT BOTTOM WIDTH 65 FOOT TOP
2159           KM   CHANNEL 6 FEET DEEP ASSUME 1 FOOT OVERTOPPING
2160           KM   OVERTOPPING WIDTH 250 FEET
2161           KM   CHANNEL SLOPE 0.0032
2162           RS       1    STOR       0       0
2163           SV       0    0.10       6    12.9
2164           SQ       0      50     770    1611
               *
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2165          KK   CPID3
2166          HC       2
              *

2167          KK  RT107  ROUTE   REACH
2168          KM       ROUTE FLOW ALONG DRCC ALIGNMENT FROM 99TH TO 107TH
2169          KM   APPROXIMATELY THREE FOURTHS OF THIS CHANNEL IS EXISTING
2170          KM   CHANNEL ASSUMED TO BE EXTENDED TO 107TH
2171          KM   THIS AND PROPOSED CULVERT AT 107TH ASSUMED TO ELIMINATE
2172          KM   ALL BUT FIRST FLUSH RETENTION BETWEEN 99TH AND 107TH
2173          RS       2              -1       0
2174          RC   0.032   0.032   0.032    5265  0.0032    0.00
2175          RX     0.0       0       0      23      45      66      66      66
2176          RY       7       7       7     0.0     0.0       7       7       7
              *

2177          KK   SUBIB   BASIN
2178          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2179          KM    L=   1.1    Lca=  .6       S=   14.2     Kn= .050     LAG=  36.8
2180          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2181          BA   0.479
2182          LG    0.25    0.15    8.00    0.13      30
2183          UI      44      75     175     231     279     349     502     500     386     316
1                                           HEC-1 INPUT                                                  PAGE 61

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

2184          UI     252     199     123      76      66      44      27      13      14      13
2185          UI      13      13       0       0       0       0       0       0       0       0
2186          UI       0       0       0       0       0       0       0       0       0       0
              *

2187          KK   RETIB
2188          KM   RETENTION MODIFIED FROM REQUIRED TO FIRST FLUSH FOR DETENTION BASIN ROUTING -
2189          KM   DIVERT 80% OF FIRST FLUSH 1/2" RETENTION OUT OF MODEL - JCS
2190          DT   RETIB    10.2
2191          DI       0   10000
2192          DQ       0   10000
              *

2193          KK   SUBIC   BASIN
2194          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2195          KM    L=  1.1     Lca= .5       S=  4.7     Kn= .050     LAG=  43.1
2196          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2197          BA   0.461
2198          LG    0.25    0.25    5.20    0.36      30
2199          UI      36      38     127     169     203     239     289     396     442     344
2200          UI     291     240     200     162     111      64      59      43      36      18
2201          UI      11      11      11      11      11       9       0       0       0       0
2202          UI       0       0       0       0       0       0       0       0       0       0
              *

2203          KK   RETIC
2204          KM   RETENTION MODIFIED FROM 80% REQUIRED TO FIRST FLUSH FOR DETENTION BASIN ROUTI
```

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2205          KM   DIVERT 80% OF FIRST FLUSH 1/2" RETENTION OUT OF MODEL - JCS
2206          DT   RETIC     9.8
2207          DI       0   10000
2208          DQ       0   10000
              *

2209          KK    CPIC
2210          KM   COMBINE IB AND IC FLOWS
2211          HC       2
              *

2212          KK   SUBOC   BASIN
2213          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2214          KM    L=        .8  Lca=        .4   S=   13.2    Kn= .03   LAG=  17.6
2215          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2216          BA   0.310
2217          LG    0.15    0.15    9.70    0.07      59
2218          UI      85     285     452     670     436     263     109      56      18      18
2219          UI      10       0       0       0       0       0       0       0       0       0
2220          UI       0       0       0       0       0       0       0       0       0       0
              *

2221          KK   RETOC
2222          KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
2223          DT   RETOC    31.1
2224          DI       0   10000
2225          DQ       0   10000
              *
```



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


2226          KK    DROC
2227          KM    RETURN DIVERT FROM OD.
2228          DR    DIOC
              *

2229          KK  RTDIOC   ROUTE   REACH
2230          KM        ROUTE DIVERT FROM OD TO OC
2231          KM        FUTURE ARTERIAL SECTION
2232          RS       7              -1       0
2233          RC   0.100   0.023   0.100    4000  0.0010    0.00
2234          RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
2235          RY     105     105     105   99.75   99.75     105     105     105
              *

2236          KK    CPOC
2237          KM   ADD HYDROGRAPHS AT OC
2238          HC       2
              *

2239          KK  RTOCMB   ROUTE   REACH
2240          KM        ROUTE FLOW FROM OC TO MB.
```

```
2241          KM       FUTURE ARTERIAL SECTION
2242          RS      3              -1       0
2243          RC  0.100   0.023   0.100    5200  0.0038    0.00
2244          RX    0.0     440     445   445.1   575.1   575.2     900  1000.0
2245          RY    105     105     105   99.75   99.75     105     105     105
              *

2246          KK  SUBMB   BASIN
2247          KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2248          KM   L=  1.4     Lca= .7     S= 17.6     Kn= .0425     LAG=  34.5
2249          KM   VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2250          BA  0.995
2251          LG   0.21    0.15    8.40    0.10      46
2252          UI     97     190     413     535     664     866    1210     956     766     598
2253          UI    486     313     171     148      98      58      30      30      30      30
2254          UI     17       0       0       0       0       0       0       0       0       0
2255          UI      0       0       0       0       0       0       0       0       0       0
              *

2256          KK  RETMB
2257          KM  DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
2258          DT  RETMB    88.4
2259          DI      0   10000
2260          DQ      0   10000
              *

2261          KK   DRMB
2262          KM   RETURN DIVERT FROM MC.
2263          DR   DIMB
              *
1                                      HEC-1 INPUT                                          PAGE 63

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


2264          KK RTDIMB   ROUTE   REACH
2265          KM       ROUTE DIVERT FROM MC TO MB
2266          KM       FUTURE ARTERIAL SECTION
2267          RS      4              -1       0
2268          RC  0.100   0.023   0.100    5200  0.0023    0.00
2269          RX    0.0     440     445   445.1   575.1   575.2     900  1000.0
2270          RY    105     105     105   99.75   99.75     105     105     105
              *

2271          KK  @CPMB
2272          KM  ADD HYDROGRAPHS AT MB.
2273          HC      3    5.24
              *

2274          KK RTMBIB   ROUTE   REACH
2275          KM       ROUTE FLOW FROM MB TO IB (ALONG 107TH AVENUE).
2276          KM       FUTURE ARTERIAL SECTION
2277          RS      1              -1       0
2278          RC  0.100   0.030   0.100    2600  0.0015    0.00
```

```
2279           RX     0.0     440     445   445.1   745.1   745.2     900  1000.0
2280           RY     105     105     105   100.0   100.0     105     105     105
               *

2281           KK   CPIB0
2282           KM   ADD HYDROGRAPHS AT IB.
2283           HC       2
               *
               * KK CPIB1
               * KM ADD HYDROGRAPHS AT IB.
               * HC     2
               *

2284           KK  @CPIB2
2285           KM   COMBINE TRIBUTARY FLOW WITH MAIN CHANNEL FLOW
2286           HC       3
               *

2287           KK    RRIB
2288           KM   MODIFIED PULS ROUTING
2289           KM   DETENTION IN DRCC RIGHT OF WAY AT IB (107TH AVENUE)   POL
2290           KM   NEW CULVERT AT 107 ASSUMED TO BE 2 CELL 4 BY 9
2291           KM   CULVERT HEADWATER BEFORE OVERTOPPING 6 FEET
2292           KM   ASSUME 1 FOOT OVERTOPPING AT 250 FOOT WIDTH
2293           KM   CHANNEL SLOPE 0.032
2294           KM   CHANNEL IS 20 FOOT BOTTOM WITH 65 FOOT TOP WITH 6 FOOT DEPTH
2295           KM   THIS IS THE SAME CHANNEL EXISTING DOWNSTREAM OF 99TH
2296           RS       1    STOR       0       0
2297           SV       0    0.08     5.1    10.9
2298           SQ       0      44     711    1525
               *
1                                          HEC-1 INPUT                                  PAGE 64

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

2299           KK  MCIBIA   ROUTE   REACH
2300           KM   ADMP CHANNEL
2301           KM   ROUTE FLOW FROM IB TO IA
2302           RS       4    FLOW      -1
2303           RC   0.040   0.040   0.040    2493  0.0005    0.00
2304           RX     1.0    17.0    35.2    53.3   263.3   281.5   299.7   315.7
2305           RY     5.7     6.1     3.0     0.0     0.0     3.0     6.1     5.7
               *
               * KM HEC-RAS REACH
               * KM BFC
               * KM ROUTE FLOW FROM IB TO IA (ALONG 107TH AVENUE).
               * KM ROUTING FOR THIS REACH USES DISCHARGE-STORAGE VALUES DEVELOPED FROM THE
               * KM HEC-RAS MODEL. 06.07.00 -DCF
               * RS     3    STOR       0
               * SV     0      17    45.4      77     106   135.9   167.9   199.8   228.7     2
               * SQ     0     400     800    1200    1600    2000    2400    2800    3200    34
               *
               * KM FUTURE ARTERIAL SECTION
```

```
               * RS     1              -1        0
               * RC 0.100    0.023   0.100      500  0.0120     0.00
               * RX   0.0      440     445    445.1   575.1    575.2      900  1000.0
               * RY   105      105     105    99.75   99.75      105      105     105
               *

2306           KK   SUBME   BASIN
2307           KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2308           KM    L=    1.0      Lca= .4      S=  20.6      Kn= .050      LAG=  30.1
2309           KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2310           BA   0.326
2311           LG    0.29     0.26    4.70     0.44      18
2312           UI      36       91     172      222     290      437      366      282      215      161
2313           UI      83       61      39       23      11       11       11       11        0        0
2314           UI       0        0       0        0       0        0        0        0        0        0
               *

2315           KK   RETME
2316           KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
2317           DT   RETME     22.8
2318           DI       0    10000
2319           DQ       0    10000
               *

2320           KK  RTMEIA   ROUTE   REACH
2321           KM        ROUTE FLOW FROM ME TO IA (ALONG 107TH AVENUE).
2322           KM        FUTURE ARTERIAL SECTION
2323           RS       3              -1        0
2324           RC   0.100    0.023   0.100     3400  0.0034     0.00
2325           RX     0.0      440     445    445.1   575.1    575.2      900  1000.0
2326           RY     105      105     105    99.75   99.75      105      105     105
               *
```



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

2327           KK   SUBIA   BASIN
2328           KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2329           KM    L=  .8       Lca=  .4      S= 17.1       Kn= .05      LAG=  26.2
2330           KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2331           KM   THIS SUBBASIN HAS BE MODIFIED TO ACCOUNT FOR EXISTING DEVELOPMENT
2332           KM   WITHOUT RETENTION. - JCS
2333           BA   0.309
2334           LG    0.27     0.25    6.00     0.25    23.1
2335           UI      40      125     210      277     426      426      309      227      152       73
2336           UI      53       32      12       12      12        8        0        0        0        0
2337           UI       0        0       0        0       0        0        0        0        0        0
               *

2338           KK   RETIA
2339           KM   DIVERT 80% OF FIRST FLUSH 1/2" RETENTION OUT OF MODEL - JCS
2340           KM   THIS DIVERSION HAS BE MODIFIED TO ACCOUNT FOR EXISTING DEVELOPMENT
2341           KM   WITHOUT RETENTION. - JCS
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2342          DT   RETIA     3.6
2343          DI       0   10000
2344          DQ       0   10000
              *

2345          KK   ~CPIA
2346          KM        ADD HYDROGRAPHS AT IA.
2347          HC       3
              *

2348          KK  MCIAHB   ROUTE   REACH
2349          KM   ADMP CHANNEL
2350          KM   ROUTE FLOW FROM BASIN IA TO HB
2351          RS       4    FLOW      -1
2352          RC   0.040   0.040   0.040    2646  0.0005    0.00
2353          RX     0.0    16.0    34.1    52.2   262.2   280.3   298.4   314.4
2354          RY     5.7     6.0     3.0     0.0     0.0     3.0     6.0     5.7
              * KM HEC-RAS REACH
              * KM BFC
              * KM ROUTE FLOW FROM IA TO HB.
              * KM ROUTING FOR THIS REACH USES DISCHARGE-STORAGE VALUES DEVELOPED FROM THE
              * KM HEC-RAS MODEL. 06.07.00 -DCF
              * RS      2    STOR       0
              * SV      0    23.3    45.2      73   102.7   132.9   160.6   189.4   212.1    222
              * SQ      0     400     800    1200    1600    2000    2400    2800    3200     34
              *

2355          KK   SUBHB   BASIN
2356          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2357          KM    L=  .8     Lca=   .4     S=  25.0     Kn= .050     LAG=  25.1
2358          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2359          KM   THIS SUBBASIN HAS BE MODIFIED TO ACCOUNT FOR EXISTING DEVELOPMENT
2360          KM   WITHOUT RETENTION. - JCS
2361          BA   0.343
2362          LG    0.27    0.25    4.80    0.41    24.3
2363          UI      46     154     250     336     531     450     329     239     132      78
2364          UI      48      21      14      14      14       0       0       0       0       0
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```
2365          UI       0       0       0       0       0       0       0       0       0       0
              *

2366          KK   RETHB
2367          KM   DIVERT 80% OF FIRST FLUSH 1/2" RETENTION OUT OF MODEL - JCS
2368          KM   THIS DIVERSION HAS BE MODIFIED TO ACCOUNT FOR EXISTING DEVELOPMENT
2369          KM   WITHOUT RETENTION. - JCS
2370          DT   RETHB     4.5
2371          DI       0   10000
2372          DQ       0   10000
              *

2373          KK   CPHB1
```

```
2374          KM   ADD HYDROGRAPHS AT HB.
2375          HC        2
              *

2376          KK   SUBDA   BASIN
2377          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2378          KM    L=  1.0    Lca= .6      S= 17.6     Kn= .05      LAG=  34.0
2379          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2380          KM   THIS SUBBASIN HAS BE MODIFIED TO ACCOUNT FOR EXISTING DEVELOPMENT
2381          KM   WITHOUT RETENTION. - JCS
2382          BA   0.328
2383          LG    0.30    0.17    6.80    0.18      15
2384          UI      32      65     140     181     225     302     400     311     249     195
2385          UI     154      94      56      46      33      14      10      10      10      10
2386          UI       3       0       0       0       0       0       0       0       0       0
2387          UI       0       0       0       0       0       0       0       0       0       0
              *

2388          KK   RETDA
2389          KM   DIVERT 80% OF FIRST FLUSH 1/2" RETENTION OUT OF MODEL - JCS
2390          KM   THIS DIVERSION HAS BE MODIFIED TO ACCOUNT FOR EXISTING DEVELOPMENT
2391          KM   WITHOUT RETENTION. - JCS
2392          DT   RETDA     4.6
2393          DI        0   10000
2394          DQ        0   10000
              *

2395          KK   ~CPDA
2396          KM   ADD HYDROGRAPHS AT DA.
2397          HC        2
              *

2398          KK   SUBLD   BASIN
2399          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2400          KM    L=        .8  Lca=        .4   S=   13.3    Kn= .05    LAG=  30
2401          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2402          BA   0.278
2403          LG    0.28    0.26    4.80    0.37      29
2404          UI      32      82     153     197     263     386     305     236     179     126
2405          UI      65      49      32      14      10      10       9       6       0       0
2406          UI       0       0       0       0       0       0       0       0       0       0
              *
```



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

2407          KK   RETLD
2408          KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
2409          DT   RETLD    20.7
2410          DI        0   10000
2411          DQ        0   10000
              *
              * THE FOLLOWING RETURN AND ROUTE REMOVED TO MODEL THE ADMP CONDITION
```

```
                * KK  DRLD
                * KM RETURN DIVERT FROM LE TO LD
                * DR  DILD
                *
                * KKRTDILD   ROUTE   REACH
                * KM ROUTE DIVERT FROM LE TO LD
                * KM TYPE A CHANNEL
                * RS     4              -1       0
                * RC 0.025   0.025   0.025    2500  0.0016    0.00
                * RX   0.0   100.0   400.0   500.0   500.1   600.0   900.0  1000.0
                * RY   5.0     4.0     1.0     0.0     0.0     1.0     4.0     5.0
                *

 2412           KK  RTLDMA   ROUTE   REACH
 2413           KM        ROUTE FLOW FROM LD TO MA
 2414           KM        TYPE A CHANNEL
 2415           RS       3              -1       0
 2416           RC   0.025   0.025   0.025    2600  0.0035    0.00
 2417           RX     0.0   100.0   400.0   500.0   500.1   600.0   900.0  1000.0
 2418           RY     5.0     4.0     1.0     0.0     0.0     1.0     4.0     5.0
                *

 2419           KK   SUBMA   BASIN
 2420           KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 2421           KM    L=  .7      Lca= .3       S=  14.7      Kn= .050     LAG=  24.8
 2422           KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
 2423           BA   0.247
 2424           LG    0.30    0.25    4.55    0.52      15
 2425           UI      33     115     184     250     392     320     234     167      88      55
 2426           UI      34      12      10      10       8       0       0       0       0       0
 2427           UI       0       0       0       0       0       0       0       0       0       0
                *

 2428           KK   RETMA
 2429           KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
 2430           DT   RETMA    16.3
 2431           DI       0   10000
 2432           DQ       0   10000
                *

 2433           KK    CPMA
 2434           KM        ADD HYDROGRAPHS AT MA
 2435           HC       2
                *
```



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

 2436           KK  RTMAHB   ROUTE   REACH
 2437           KM        ROUTE FLOW FROM MA TO HB (ALONG 115TH AVENUE).
 2438           KM        FUTURE ARTERIAL SECTION
 2439           RS       3              -1       0
 2440           RC   0.100   0.023   0.100    4000  0.0071    0.00
```

```
2441         RX     0.0      440      445    445.1    575.1    575.2      900   1000.0
2442         RY     105      105      105    99.75    99.75      105      105      105
             *

2443         KK   CPHB2
2444         KM        ADD HYDROGRAPHS AT HB.
2445         HC       2
             *
             * THE FOLLOWING ROUTES REMOVED TO MODEL THE ADMP CONDITION
             * ROUTING TO DA NO LONGER OCCURS BUT IS COMBINED INTO CHANNEL AT HB
             * KKRTHBDA
             * KM HEC-RAS REACH
             * KM BFC
             * KM ROUTE FLOW FROM HB TO DA (ALONG 115TH AVENUE).
             * KM ROUTING FOR THIS REACH USES DISCHARGE-STORAGE VALUES DEVELOPED FROM THE
             * KM HEC-RAS MODEL. 06.07.00 -DCF
             * RS      2    STOR        0
             * SV      0    11.3     18.3     26.4     34.3     40.3     46.2     51.7     56.5     59
             * SQ      0     400      800     1200     1600     2000     2400     2800     3200     34
             *
             * KKRTDACC
             * KM HEC-RAS REACH
             * KM BFC
             * KM ROUTE FLOW FROM DA TO CC.
             * KM ROUTING FOR THIS REACH USES DISCHARGE-STORAGE VALUES DEVELOPED FROM THE
             * KM HEC-RAS MODEL. 06.07.00 -DCF
             * RS      6    STOR        0
             * SV      0    49.6     80.6    107.1    129.8    149.2      167    184.1    200.2    207
             * SQ      0     400      800     1200     1600     2000     2400     2800     3200     34
             *

2446         KK   SUBLB    BASIN
2447         KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2448         KM    L=       .7  Lca=       .3    S=     8.8  Kn= .050  LAG=  27
2449         KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2450         BA   0.249
2451         LG    0.30     0.25     4.60     0.49       15
2452         UI      31       90      158      206      297      358      258      192      142       72
2453         UI      50       31       14       10       10        9        3        0        0        0
2454         UI       0        0        0        0        0        0        0        0        0        0
             *

2455         KK   RETLB
2456         KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
2457         DT   RETLB     16.4
2458         DI       0    10000
2459         DQ       0    10000
             *
1                                         HEC-1 INPUT                                         PAGE 69

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


2460         KK  RTLBHA    ROUTE    REACH
```

```
2461     KM        ROUTE FLOW FROM LB TO HA (SHEET FLOW).
2462     KM        TYPE A CHANNEL
2463     RS      13              -1       0
2464     RC   0.100   0.100   0.100    4000  0.0065    0.00
2465     RX     0.0   100.0   400.0   500.0   500.1   600.0   900.0  1000.0
2466     RY     5.0     4.0     1.0     0.0     0.0     1.0     4.0     5.0
         *

2467     KK   SUBHA   BASIN
2468     KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2469     KM    L=  .8      Lca=  .4      S= 33.8      Kn= .05     LAG=  23.5
2470     KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2471     BA   0.150
2472     LG    0.25    0.25    4.70    0.44      30
2473     UI      21      79     122     172     255     186     133     089      42      27
2474     UI      14       7       7       7       0       0       0       0       0       0
2475     UI       0       0       0       0       0       0       0       0       0       0
         *

2476     KK   RETHA
2477     KM   DIVERT 80% OF FIRST FLUSH 1/2" RETENTION OUT OF MODEL - JCS
2478     DT   RETHA     3.2
2479     DI       0   10000
2480     DQ       0   10000
         *

2481     KK    CPHA
2482     KM        ADD HYDROGRAPHS AT HA
2483     HC       3
         * ****************************************************************************
         * INSERTED SOUTH ALIGNMENT FROM 1084F6-IMP-R.DAT - JCS
         * ADDED/CHANGED SUBJB2 TO CPEE IN ORDER TO REINSERT SUBJB2 - JCS
         *

2484     KK  MCHACB    ROUTE      REACH
2485     KM   ADMP CHANNEL
2486     KM   ROUTE FLOW FROM HA TO CB.
2487     RS       8    FLOW      -1
2488     RC   0.040   0.040   0.040    9163  0.0017    0.00
2489     RX     0.0    16.0    33.7    51.4   201.4   219.4   228.1   244.1
2490     RY     5.6     5.9     3.0     0.0     0.0     3.0     5.9     5.6
         *
         * KK SUBJB2
         * KM  THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
         * KM  L=      1.3  Lca=       .7   S=   17.4  Kn= .050  LAG=  40
         * KM  VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
         * BA 0.493
         * LG  0.30    0.21    6.40    0.18      15
         * UI    41      54     151     203     242     293     372     515     433      3
         * UI   292     237     194     133      73      68      46      41      14
         * UI    12      13      13      13       2       0       0       0       0
         *
         * KKRETJB2
         * KM DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
```

```
* DTRETJB2    32.4
* DI     0   10000
* DQ     0   10000
*
* KK DRJB2
* KM  RETURN DIVERT FROM JC2
* DR DIJB2
*
* KK RTJCJB   ROUTE      REACH
* KM ROUTE DIVERT FROM JC2 TO JB2
* KM FUTURE ARTERIAL SECTION
* RS     4               -1        0
* RC 0.100   0.023   0.100    5000  0.0015    0.00
* RX   0.0     440     445   445.1   575.1   575.2     900  1000.0
* RY   105     105     105   99.75   99.75     105     105     105
*
* KK@CPJB2
* KM ADD HYDROGRAPHS AT JB2
* HC     2    3.81
*
* KKDIJBEE
* KM DIVERT 64% OF FLOW AT JB2 TO FA AND THE SALT RIVER. - JCS
* DT  DIFA
* DI     0      25      50      75     100     150    2000
* DQ     0      16      32      48      64      96    1280
*
* KKRTJBEE  ROUTE      REACH
* KM      ROUTE DIVERT FROM JB TO EE
* KM      TYPE A CHANNEL
* RS    10               -1        0
* RC 0.100   0.023   0.100    7500  0.0015    0.00
* RX   0.0   100.0   400.0   500.0   500.1   600.0   900.0  1000.0
* RY   5.0     4.0     1.0     0.0     0.0     1.0     4.0     5.0
*
* KK SUBEE
* KM  THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
* KM  L=       1.6  Lca=      1.0   S=   16.0  Kn= .05  LAG=  50.8
* KM  VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
* BA 0.958
* LG  0.20    0.25    4.90    0.34      15
* UI    63      63     159     258     318     366     421     494     637     8
* UI   695     577     504     428     362     314     244     157     113     1
* UI    79      64      51      19      20      20      19      20      20
* UI     7       0       0       0       0       0       0       0       0
* UI     0       0       0       0       0       0       0       0       0
*
* KKRETEE
* KM DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
* DTRETEE     63.0
* DI     0   10000
* DQ     0   10000
*
* KK CPEE
* KM      ADD HYDROGRAPHS AT EE
```

```
* HC      2
*
* KKDI91ST
* KM DIVERT 100% OF FLOW TO SALT RIVER DUE TO ARMY CORPS OF ENGINEERS TRES RIOS
* KM INTERIOR DRAINAGE. 07/17/07, -JCS
* DT  DI91
* DI      0   10000
* DQ      0   10000
*
* KKRTEEEA
* KM HEC-RAS REACH
* KM ROUTE FLOW FROM EE TO EA.
* KM ROUTING FOR THIS REACH USES DISCHARGE-STORAGE VALUES OBTAINED FROM THE
* KM DIBBLE MODEL DUR-6im.DAT.    POL 9-6-2005
* RS      9     STOR       0
* SV      0     63.2     84.9      119    148.6    174.2    197.9    220.2    241.2     263
* SQ      0      100      200      400      600      800     1000     1200     1400      16
*
* KKRTEEEA   ROUTE   REACH
* KM       ROUTE FLOW FROM EE TO EA
* KM       TYPE A CHANNEL
* RS      9                -1        0
* RC 0.035    0.035    0.035     5300  0.0030     0.00
* RX    0.0    100.0    400.0    500.0    500.1    600.0    900.0  1000.0
* RY    5.0      4.0      1.0      0.0      0.0      1.0      4.0     5.0
*
```


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

               KK    SUBEA    BASIN
               KM     THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
               KM     L=        1.5  Lca=       .8      S=    21.3     Kn= .05     LAG=  43.2
               KM     VALLEY S-GRAPH WAS USED FOR THIS BASIN
               KM    73% OF FLOW TO SALT RIVER DUE TO ARMY CORPS OF ENGINEERS TRES RIOS
               KM    INTERIOR DRAINAGE.  27% TO REMAIN.  ORIGINAL AREA = 1.321 MI.^2
               KM     REVISED - ASPEN CONSULTING ENGINEERS
               BA    0.357
               LG     0.25     0.25     5.30     0.29       30
               UI       28       29       98      130      157      185      223      305      342      267
               UI      225      186      155      126       87       49       46       33       28       14
               UI        8        8        8        8        9        7        0        0        0        0
               UI        0        0        0        0        0        0        0        0        0        0
               *

               KK    RETEA
               KM    100-YR 6-HR RETENTION REQUIREMENT FOR NEW DEVELOPMENT.
               KM    TOTAL RUNOFF CALCULATED = 40 AF
               KM    AREA TO BE DEVELOPED IS 0.357 SQ. MI. 27% OF 1.321 SQ. MI. - JCS
               DT    RETEA      40.0
               DI        0   10000
               DQ        0   10000
               *
```

```
                    * KK  CPEA
                    * KM       ADD HYDROGRAPHS AT EA
                    * HC     2   0.355
                    *
                    * KKP-99SO
                    * KO     1        2
                    * KM DIVERT OVERFLOW INTO BASIN - JLM 6/17/02
                    * DTB-99SO
                    * DI     0      260      260     2000     5000
                    * DQ     0        0        1     1740     4740
                    *

 2511               KK  RTEADC   ROUTE   REACH
 2512               KM   CROSS SECTION DERIVED FROM 2-FOOT TOPOGRAPHY AND SITE VISIT
 2513               KM   ROUTE FLOW FROM EA TO DC.
 2514               KM   ASPEN CONSULTING ENGINEERS, 06/21/06, -JCS
 2515               RS      10               -1        0
 2516               RC   0.065    0.065    0.065     4750   0.0065
 2517               RX     0.0      1.0      2.0      4.0      7.0      9.0   1250.0   1252.0
 2518               RY     4.0      0.0      0.0      0.0      0.0      0.0      0.0      6.0
                    *

 2519               KK   SUBDC   BASIN
 2520               KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 2521               KM    L=      1.6  Lca=       .8    S=   22.1    Kn= .05    LAG=  43.9
 2522               KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN
 2523               KM   THIS SUBBASIN HAS BE MODIFIED TO ACCOUNT FOR EXISTING DEVELOPMENT
 2524               KM   WITHOUT RETENTION. - JCS
 2525               BA   0.830
 2526               LG    0.28     0.24     6.00     0.22       25
 2527               UI      63       63      219      292      355      414      497      666      801      632
1                                                 HEC-1 INPUT                                                      PAGE 71

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

 2528               UI     528      444      367      309      218      129      108       89       63       48
 2529               UI      19       20       20       20       20       19        5        0        0        0
 2530               UI       0        0        0        0        0        0        0        0        0        0
                    *

 2531               KK   RETDC
 2532               KM   DIVERT FUTURE DEVELOPMENT PORTION OF
 2533               KM   SUBBASIN FLOW (54.8%) OUT DUE TO 100-YR 6-HR RETENTION.
 2534               KM   - JCS
 2535               DT   RETDC       48
 2536               DI       0    10000
 2537               DQ       0     5480
                    *

 2538               KK   EXRETDD
 2539               KM   RETENTION FOR EXISTING DEVELOPMENT.
 2540               KM   30% OF DC AREA.
 2541               DT   EXRET     20.7
 2542               DI       0    10000
```

```
2543          DQ       0   10000
              *

2544          KK    SUBDD   BASIN
2545          KO       3
2546          KM     THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2547          KM     L=        .5  Lca=       .3    S=   28.3  Kn= .050  LAG=  18.2
2548          KM     VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2549          BA    0.133
2550          LG     0.25    0.25    4.70    0.40      30
2551          UI       34     115     178     281     193     123      53      30      10       8
2552          UI        7       0       0       0       0       0       0       0       0       0
2553          UI        0       0       0       0       0       0       0       0       0       0
              *

2554          KK    RETDD
2555          KM    100-YR 24-HR RETENTION RQUIREMENT FOR NEW DEVELOPMENT.
2556          KM    DIVERT THE 100-YR 24-HR RAINFALL OUT OF MODEL
2557          KM    TOTAL RUNOFF CALCULATED = 14 AF - JCS
2558          DT    RETDD     14.0
2559          DI       0   10000
2560          DQ       0   10000
              *

2561          KK   RTDDDC   ROUTE   REACH
2562          KM         ROUTE FLOW FROM DD TO DC (ALONG 107TH AVENUE).
2563          KM         FUTURE ARTERIAL SECTION
2564          RS       1               -1       0
2565          RC    0.100   0.030   0.100    1300  0.0090    0.00
2566          RX      0.0     440     445   445.1   745.1   745.2     900  1000.0
2567          RY      105     105     105   100.0   100.0     105     105     105
              *
1                                      HEC-1 INPUT                                          PAGE 72

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


2568          KK    ~CPDC
2569          KM         ADD HYDROGRAPHS AT DC
2570          HC       3   1.318
              *

2571          KK   RTDCCC   ROUTE   REACH
2572          KM         ROUTE FLOW FROM DC TO CC.
2573          KM    SMALL SUNLAND CHANNEL SIZED FOR FLOW WHERE FUTURE DEVELOPMENT
2574          KM    HAS 100-YR 6-HR RETENTION.
2575          RS       5               -1       0
2576          RC    0.040   0.040   0.040    5153  0.0021    0.00
2577          RX      0.0     4.0    41.0    77.0    87.0   123.0   124.0   125.0
2578          RY      6.0     6.0     6.0     0.0     0.0     6.0     6.0     6.0
              *

2579          KK    SUBCC   BASIN
2580          KM     THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
```

```
2581           KM    L=  1.4    Lca= .7     S=   22.8      Kn= .05      LAG=  39.4
2582           KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN
2583           KM   THIS SUBBASIN HAS BE MODIFIED TO ACCOUNT FOR EXISTING DEVELOPMENT
2584           KM   WITHOUT RETENTION. - JCS
2585           BA   0.981
2586           LG     0.27     0.25     6.00     0.20       24
2587           UI       83      120      314      420      502      612      812     1041      839      688
2588           UI      563      458      364      218      145      129       84       63       25       25
2589           UI       26       25       25       15        0        0        0        0        0        0
2590           UI        0        0        0        0        0        0        0        0        0        0
               *

2591           KK   RETCC
2592           KM   EXISTING DEVELOPMENT IS 37% OF CC AREA.  DIVERT FUTURE DEVELOPMENT PORTION OF
2593           KM   SUBBASIN FLOW (71.5%) OUT DUE TO 100-YR 6-HR RETENTION.
2594           KM    71 ACRE FEET IS VOLUME FOR 100-YEAR 6-HOUR RETENTION
2595           KM   - JCS
2596           DT   RETCC       71
2597           DI        0    10000
2598           DQ        0     7150
               *

2599           KK   ~CPCC
2600           HC        2    2.299
               *

2601           KK  RTCCSC
2602           KM   ROUTE FLOW FROM CC TO DRCC
2603           KM   SMALL SUNLAND CHANNEL SIZED FOR FLOW WHERE FUTURE DEVELOPMENT
2604           KM   HAS 100-YR 6-HR RETENTION. D=4.2FT, Q=400CFS
2605           RS        4                -1        0
2606           RC   0.040    0.040    0.040     3027  0.0008     0.00
2607           RX     0.0      4.0     41.0     77.0     87.0    123.0    124.0    125.0
2608           RY     6.0      6.0      6.0      0.0      0.0      6.0      6.0      6.0
               *
```


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


2609           KK  RTCCSC
2610           KM   ROUTE SUNLAND IN DRCC
2611           KM   DRCC CHANNEL
2612           RS        2                -1        0
2613           RC   0.040    0.040    0.040     2256  0.0017     0.00
2614           RX     0.0    100.0    101.0    137.0    287.0    353.0    354.0    454.0
2615           RY     6.0      6.0      6.0      0.0      0.0      6.0      6.0      6.0
               *

2616           KK   SUBCB   BASIN
2617           KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2618           KM    L=  1.2    Lca=  .5     S= 11.1      Kn= .05     LAG=  36.9
2619           KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2620           BA   0.739
```

```
2621        LG    0.30    0.15    9.70    0.07      15
2622        UI      67     114     268     355     429     535     768     774     596     488
2623        UI     390     310     194     117     102      68      43      21      21      21
2624        UI      21      21       1       0       0       0       0       0       0       0
2625        UI       0       0       0       0       0       0       0       0       0       0
            *

2626        KK   RETCB
2627        KM   DIVERT 80% OF FIRST FLUSH 1/2" RETENTION OUT OF MODEL - JCS
2628        DT   RETCB    15.8
2629        DI       0   10000
2630        DQ       0   10000
            *

2631        KK   ~CPCB1
2632        HC       3
            *

2633        KK  SUBGD1   BASIN
2634        KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2635        KM    L=  1.1      Lca= .6      S= 33.3      Kn= .05      LAG=  31.6
2636        KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2637        BA   0.629
2638        LG    0.25    0.25    5.30    0.33      30
2639        UI      67     155     306     394     501     742     750     564     440     342
2640        UI     225     116      96      68      26      21      21      20      18       0
2641        UI       0       0       0       0       0       0       0       0       0       0
            *

2642        KK  RETGD1
2643        KM   DIVERT 80% OF FIRST FLUSH 1/2" RETENTION OUT OF MODEL - JCS
2644        DT  RETGD1    13.4
2645        DI       0   10000
2646        DQ       0   10000
            *
1                                    HEC-1 INPUT                                      PAGE 74

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


2647        KK  SUBGD2
2648        KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2649        KM    L=  1.2      Lca=  .5      S= 11.1      Kn= .05      LAG=  37.5
2650        KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2651        BA   0.211
2652        LG    0.25    0.15    9.70    0.07      30
2653        UI      66     108     259     345     414     512     722     791     604     498
2654        UI     395     327     218     119     109      69      56      21      21      20
2655        UI      21      20       9       0       0       0       0       0       0       0
2656        UI       0       0       0       0       0       0       0       0       0       0
            *

2657        KK  RETGD2
2658        KM   DIVERT 80% OF FIRST FLUSH 1/2" RETENTION OUT OF MODEL - JCS
```

```
2659            DT  RETGD2    15.8
2660            DI       0   10000
2661            DQ       0   10000
                *

2662            KK   CPGD
2663            KM   RECOMBINE SUBBASIN GD - JCS
2664            HC       2
                *

2665            KK   SUBKC   BASIN
2666            KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2667            KM    L=        .8  Lca=       .4    S=   26.3  Kn= .050  LAG=  25
2668            KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2669            BA   0.264
2670            LG    0.25    0.25    4.60    0.50      30
2671            UI      35     119     193     260     409     346     253     183     101      60
2672            UI      37      16      11      11      11       0       0       0       0       0
2673            UI       0       0       0       0       0       0       0       0       0       0
                *

2674            KK   RETKC
2675            KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
2676            DT   RETKC     21.8
2677            DI       0   10000
2678            DQ       0   10000
                *

2679            KK  RTKCGDROUTE      REACH
2680            KM        ROUTE FLOW FROM KC TO GD1 (ALONG EL MIRAGE RD).
2681            KM        ASSUME NEGLIGIBLE CHANNEL TRANSMISSION LOSS.
2682            KM        FUTURE ARTERIAL SECTION
2683            RS       3              -1       0
2684            RC   0.100   0.023   0.100    4090  0.0049    0.00
2685            RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
2686            RY     105     105     105   99.75   99.75     105     105     105
                *
```



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

2687            KK   SUBGC   BASIN
2688            KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2689            KM    L= .8     Lca=  .4       S=    26.5     Kn= .045     LAG=  23.3
2690            KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2691            KM   THIS SUBBASIN HAS BE MODIFIED TO ACCOUNT FOR EXISTING DEVELOPMENT
2692            KM   WITHOUT RETENTION. - JCS
2693            BA   0.215
2694            LG    0.28    0.26    4.70    0.34    19.7
2695            UI      31     116     178     254     368     265     189     123      57      38
2696            UI      19      10       9       9       0       0       0       0       0       0
2697            UI       0       0       0       0       0       0       0       0       0       0
                *
```

```
2698          KK   RETGC
2699          KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
2700          KM   THIS DIVERSION HAS BE MODIFIED TO ACCOUNT FOR EXISTING DEVELOPMENT
2701          KM   WITHOUT RETENTION. - JCS
2702          DT   RETGC     5.0
2703          DI       0   10000
2704          DQ       0   10000
              *

2705          KK  RTGCGD     ROUTE      REACH
2706          KM        ROUTE FLOW FROM GC TO GD1 (ALONG EL MIRAGE ROAD).
2707          KM        FUTURE ARTERIAL SECTION
2708          RS       1               -1        0
2709          RC   0.100   0.023   0.100     820  0.0049    0.00
2710          RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
2711          RY     105     105     105   99.75   99.75     105     105     105
              *

2712          KK   CPGD1
2713          KM        ADD ALL HYDROGRAPHS AT GD1.
2714          HC       3
              *

2715          KK  RTGDCB   ROUTE      REACH
2716          KM   ROUTE FLOW FROM GD1 TO CB
2717          RS       6    FLOW      -1
2718          RC   0.100   0.023   0.100    3880  0.0010    0.00
2719          RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
2720          RY     105     105     105   99.75   99.75     105     105     105
              *

2721          KK  ~CPCB2
2722          KM   COMBINE FLOWS FROM CB TO CHANNEL
2723          HC       2
              *
```



```
2724          KK  MCCBCA
2725          KM   ADMP CHANNEL
2726          KM   ROUTE FLOW FROM CB TO CA.
2727          RS       8    FLOW      -1
2728          RC   0.040   0.040   0.040    5026  0.0014    0.00
2729          RX     0.0    16.0    33.7    51.4   201.4   219.4   228.1   244.1
2730          RY     5.6     5.9     3.0     0.0     0.0     3.0     5.9     5.6
              *

2731          KK  SUBCA1   BASIN
2732          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2733          KM    L=      1.0  Lca=       .5    S=     6.4  Kn= .05  LAG=  38.9
2734          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
```

```
2735            KM   THIS SUBBASIN HAS BE MODIFIED TO ACCOUNT FOR EXISTING DEVELOPMENT
2736            KM   WITHOUT RETENTION. - JCS
2737            BA   0.143
2738            LG   0.26     0.15    7.60    0.14    26.9
2739            UI     12       18      47      63      75      92     124     154     120      99
2740            UI     81       65      50      29      21      17      12       7       4       4
2741            UI      4        4       4       1       0       0       0       0       0       0
2742            UI      0        0       0       0       0       0       0       0       0       0
                *

2743            KK  RETCA1
2744            KM   DIVERT 80% OF FIRST FLUSH 1/2" RETENTION OUT OF MODEL - JCS
2745            KM   THIS DIVERSION HAS BE MODIFIED TO ACCOUNT FOR EXISTING DEVELOPMENT
2746            KM   WITHOUT RETENTION. - JCS
2747            DT  RETCA1      2.4
2748            DI       0    10000
2749            DQ       0    10000
                *

2750            KK  SUBCA2    BASIN
2751            KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2752            KM    L=       1.0  Lca=        .5    S=     7.8    Kn= .05     LAG=  37.4
2753            KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2754            BA   0.841
2755            LG   0.30     0.15    8.80    0.09      15
2756            UI     76      123     297     297     393     474     585     829     898     566
2757            UI    448      369     247     134     124      76      63      23      23      23
2758            UI     23       23       9       0       0       0       0       0       0       0
2759            UI      0        0       0       0       0       0       0       0       0       0
                *

2760            KK  RETCA2
2761            KM   DIVERT 80% OF FIRST FLUSH 1/2" RETENTION OUT OF MODEL - JCS
2762            DT  RETCA2     17.9
2763            DI       0    10000
2764            DQ       0    10000
                *
```



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

2765            KK  ~CPCA1
2766            KM   COMBINE FLOWS AT CA
2767            KM   RECOMBINE SUBBASIN CA - JCS
2768            HC       3
                *

2769            KK   SUBGB    BASIN
2770            KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2771            KM    L= .8       Lca= .6    S=    36.1     Kn= .05      LAG=  27.4
2772            KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2773            KM   THIS SUBBASIN HAS BE MODIFIED TO ACCOUNT FOR EXISTING DEVELOPMENT
2774            KM   WITHOUT RETENTION. - JCS
```

```
2775      BA   0.221
2776      LG    0.30    0.25    4.55    0.42      15
2777      UI      27      79     139     181     260     318     230     171     127      65
2778      UI      45      27      13       8       8       8       3       0       0       0
2779      UI       0       0       0       0       0       0       0       0       0       0
          *

2780      KK   RETGB
2781      KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
2782      KM   THIS DIVERSION HAS BE MODIFIED TO ACCOUNT FOR EXISTING DEVELOPMENT
2783      KM   WITHOUT RETENTION. - JCS
2784      DT   RETGB     8.3
2785      DI       0   10000
2786      DQ       0   10000
          *

2787      KK  RTGBCA   ROUTE      REACH
2788      KM        ROUTE FLOW FROM GB TO CA1.
2789      KM        FUTURE ARTERIAL SECTION
2790      RS       5              -1       0
2791      RC   0.040   0.040   0.040    5136  0.0014    0.00
2792      RX     0.0    16.0    33.8    51.6   166.6   184.4   202.3   218.3
2793      RY     5.6     5.9     3.0     0.0     0.0     3.0     5.9     5.6
          *

2794      KK   ~CPCA2
2795      KM        ADD HYDROGRAPHS AT CA
2796      HC       2
          *

2797      KK  P-DRCCDIVERT
2798      KM   DIVERT OVERFLOW INTO BASIN - JLM 6/18/02
2799      DT  B-DRCC
2800      DI       0      34      34    5000    9000
2801      DQ       0       0       1    4966    8966
          *
```



```
2802      KK  MCCABC   ROUTE      REACH
2803      KM   ROUTE ADMP CHANNEL FROM CA1 TO BC1
2804      RS       5    FLOW      -1
2805      RC   0.014   0.014   0.014    3914  0.0005    0.00
2806      RX     0.0    16.0    16.0    16.0    20.0    20.0    20.0    36.0
2807      RY     3.8     4.1     2.1     0.0     0.0     2.1     4.1     3.8
          *
          * KM HEC-RAS REACH
          * KM BFC
          * KM ROUTE FLOW FROM CA TO BC.
          * KM ROUTING FOR THIS REACH USES DISCHARGE-STORAGE VALUES DEVELOPED FROM THE
          * KM HEC-RAS MODEL. 06.07.00 -DCF
          * RS    11    STOR       0
```

```
              * SV      0    52.4   113.5   174.4   227.6   278.6   321.5     363   401.7       4
              * SQ      0     400     800    1200    1600    2000    2400    2800    3200      34
              *

 2808         KK  SUBBC1   BASIN
 2809         KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 2810         KM    L=  0.22x1.7   Lca=  0.22x0.8    S=  11.5    Kn= .02    LAG=  6.3
 2811         KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
 2812         BA   0.137
 2813         LG    0.15    0.28    4.80    0.38      55
 2814         UI     309     618     117     117      18       0       0       0       0       0
 2815         UI       0       0       0       0       0       0       0       0       0       0
              *

 2816         KK  RETBC1
 2817         KM   DIVERT 80% OF FIRST FLUSH 1/2" RETENTION OUT OF MODEL - JCS
 2818         DT  RETBC1     2.9
 2819         DI       0   10000
 2820         DQ       0   10000
              *

 2821         KK  SUBBC2   BASIN
 2822         KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 2823         KM    L=      1.7  Lca=       .8    S=    11.5  Kn= .038  LAG=  38.3
 2824         KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
 2825         BA   0.493
 2826         LG    0.24    0.25    5.10    0.39      31
 2827         UI      55      86     214     284     340     419     573     682     523     433
 2828         UI     345     284     204     116      93      68      55      21      17      17
 2829         UI      17      17      15       0       0       0       0       0       0       0
 2830         UI       0       0       0       0       0       0       0       0       0       0
              *

 2831         KK  RETBC2
 2832         KM   DIVERT 80% OF FIRST FLUSH 1/2" RETENTION OUT OF MODEL - JCS
 2833         DT  RETBC2    10.5
 2834         DI       0   10000
 2835         DQ       0   10000
              *
```



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

 2836         KK   ~CPBC
 2837         KM   ADD HYDROGRAPHS AT BC1
 2838         KM   RECOMBINE SUBBASIN BC - JCS
 2839         HC       3
              *

 2840         KK  CPAFBC
 2841         KM   COMBINE FLOWS INTO AGUA FRIA RIVER AT BC
 2842         HC       2
              *
```

```
                    * KM      FUTURE ARTERIAL SECTION
                    * RS    10               -1       0
                    * RC 0.100    0.023   0.100     5700  0.0018     0.00
                    * RX   0.0      440     445    445.1   575.1    575.2      900  1000.0
                    * RY   105      105     105    99.75   99.75      105      105     105
                    *
                    *
                    *
                    * ***************************************************************************
                    * NOTES REFERING TO CHANGES MADE TO DIBBLE MODEL HAVE BEEN OMITTED.
                    * SEE 1084F6-IMP-R.DAT FOR NOTES. - JCS
         2843       ZZ
1
               SCHEMATIC DIAGRAM OF STREAM NETWORK
 INPUT
  LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

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

   89        SUBWD
                 V
                 V
   97       RTWDXA
                 .
                 .
  104            .         SUBXA
                 .             .
                 .             .
  111        CPXA1............
                 .
                 .
  116            .------->   DIZZ1
  114        DIXAO
                 V
                 V
  119       RTXAWC
                 .
                 .
  126            .         SUBWB
                 .             V
                 .             V
  134            .        RTWBWC
                 .             .
                 .             .
  141            .             .         SUBWC
                 .             .             .
                 .             .             .
  148         CPWC.......................
                 .
                 .
  154            .------->    DIQE
  151       DIWCWA
                 V
                 V
```

```
157     RTWCWA
             .
             .
170          .      SUBWA
             .          .
             .          .
177      CPWA1............
             .
             .
180          .      SUBVD
             .          V
             .          V
188          .     RTVDWA
             .          .
             .          .
195      CPWA2............
             .
             .
202          .------->    DIQD
198     DIWAVC
             V
             V
205     RTWAVC
             .
             .
215          .      SUBVC
             .          .
             .          .
222      CPVC1............
             .
             .
225          .      SUBVB
             .          V
             .          V
232          .     RTVBVC
             .          .
             .          .
239      CPVC2............
             .
             .
246          .------->    DIVA
242     DIVCQA
             V
             V
249     RTVCQA
             .
             .
256          .      SUBQA
             .          .
             .          .
264      CPQA2............
             V
             V
267       RSQA
```

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              .
              .
276           .------->    DIPF
274      DIQAPF
              V
              V
279      RTQAJH
              .
              .
286           .       SUBQE
              .           .
              .           .
295           .           .           .<-------    DIQE
293           .           .        DRQE
              .           .           V
              .           .           V
296           .           .      RTDIQE
              .           .           .
              .           .           .
303           .        CPQE............
              .           V
              .           V
306           .        RSQE
              .           V
              .           V
312           .      RTQEQC
              .           .
              .           .
319           .           .       SUBQD
              .           .           .
              .           .           .
328           .           .           .           .<-------    DIQD
326           .           .           .        DRQD
              .           .           .           V
              .           .           .           V
329           .           .           .      RTDIQD
              .           .           .           .
              .           .           .           .
336           .           .        CPQD............
              .           .           V
              .           .           V
339           .           .        RSQD
              .           .           .
              .           .           .
347           .           .           .------->    DIQB
345           .           .      DIQDQB
              .           .           V
              .           .           V
350           .           .      RTQDQC
              .           .           .
              .           .           .
357           .           .           .       SUBQC
              .           .           .           .
              .           .           .           .
```

```
364           .       CPQC.......................
              .          .
              .          .
369           .          .------->    DISR
367           .      DIQCR
              .          V
              .          V
372           .     RTQCJI
              .          .
              .          .
379           .          .         SUBQB
              .          .             .
              .          .             .
389           .          .             .          .<-------    DIQB
387           .          .             .        DRQB
              .          .             .           V
              .          .             .           V
390           .          .             .      RTDIQB
              .          .             .           .
              .          .             .           .
396           .          .          CPQB............
              .          .             V
              .          .             V
399           .          .          RSQB
              .          .             V
              .          .             V
406           .          .        RTQBJH
              .          .             .
              .          .             .
413           .          .             .       SUBJH
              .          .             .           .
              .          .             .           .
420        CPJH......................................
              V
              V
422      RTJHJI
              .
              .
429           .      SUBJI
              .          .
              .          .
436        CPJI...........
              .
              .
441           .------->    DISR1
439       DISRX
              .
              .
444           .      SUBPF
              .          .
              .          .
455           .          .------->    RETPF
451           .      RETPF
              .          .
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               .           .
460            .           .           .<-------     DIPF
458            .           .        DRPF
               .           .           V
               .           .           V
461            .           .      RTDIPF
               .           .           .
               .           .           .
468            .       @CPPF............
               .           V
               .           V
471            .        RSPF
               .           .
               .           .
479            .           .------->     DIPE
477            .      DIPFPE
               .           V
               .           V
482            .      RTPFJF
               .           .
               .           .
489            .           .       SUBUD
               .           .           .
               .           .           .
500            .           .           .------->    RETB1
497            .           .        RETU
               .           .           .
               .           .           .
505            .           .           .------->   59SD1D
503            .           .      SDDRUD
               .           .           .
               .           .           .
510            .           .           .------->     DIUA
508            .           .      DIUDUA
               .           .           V
               .           .           V
513            .           .      RTUDVA
               .           .           .
               .           .           .
520            .           .           .       SUBVA
               .           .           .           .
               .           .           .           .
529            .           .           .           .           .<-------     DIVA
527            .           .           .           .        DRVA
               .           .           .           .           .
               .           .           .           .           .
530            .           .       CPVA1.......................
               .           .           .
               .           .           .
535            .           .           .------->   59SD2D
533            .           .      SDDRVA
               .           .           .
               .           .           .
545            .           .           .------->     DIUC
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538           .           .      DIVAPE
              .           .           V
              .           .           V
548           .           .      RTVAPE
              .           .           .
              .           .           .
555           .           .           .       SUBPE
              .           .           .           .
              .           .           .           .
563           .           .           .           .           .<-------    DIPE
561           .           .           .           .        DRPE
              .           .           .           .           V
              .           .           .           .           V
564           .           .           .           .      RTDIPE
              .           .           .           .           .
              .           .           .           .           .
571           .           .        CPPE........................
              .           .           V
              .           .           V
574           .           .        RSPE
              .           .           .
              .           .           .
582           .           .           .------->    DIPD
580           .           .      DIPEPD
              .           .           V
              .           .           V
585           .           .      RTPEJF
              .           .           .
              .           .           .
592           .           .           .       SUBJF
              .           .           .           .
              .           .           .           .
600           .        CPJF........................
              .           V
              .           V
603           .      RTJFJG
              .           .
              .           .
610           .           .       SUBJG
              .           .           .
              .           .           .
619           .        CPJG............
              .           .
              .           .
622      CPJGSR............
              .
              .
627           .           .<-------    DIUC
625           .        DRUC
              .           V
              .           V
628           .      RTVAUC
              .           V
              .           V
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640     .     MCUCUC
        .          .
        .          .
648     .          .    SUBUC
        .          .         .
        .          .         .
655     .      @CPUC..........
        .          .
        .          .
658     .          .    SUBTB1
        .          .         .
        .          .         .
670     .          .         .------->   RETB1
667     .          .     RETB1
        .          .         .
        .          .         .
675     .          .         .------->  67SD1D
673     .          .    SDDTB1
        .          .         V
        .          .         V
678     .          .    RTUAUC
        .          .         .
        .          .         .
685     .          .         .        SUBUA
        .          .         .            .
        .          .         .            .
695     .          .         .            .          .<-------    DIUA
693     .          .         .            .        DRUA
        .          .         .            .            V
        .          .         .            .            V
696     .          .         .            .      RTDIUA
        .          .         .            .            .
        .          .         .            .            .
703     .          .     @CPUA.............................
        .          .         .
        .          .         .
708     .          .         .------->  67SD1D
706     .          .    SDDRUA
        .          .         .
        .          .         .
713     .          .         .------->    DITB
711     .          .    DIUAUC
        .          .         V
        .          .         V
716     .          .    RTUAUC
        .          .         .
        .          .         .
723     .     ~CPUC2...........
        .          .
        .          .
732     .          .------->    DIUB
726     .     DIUCPC
        .          V
        .          V
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735            .      RTUCPC
               .           .
               .           .
742            .           .       SUBPC
               .           .           .
               .           .           .
748            .        CPPC............
               .           V
               .           V
751            .        RSPC
               .           V
               .           V
757            .      RTPCNB
               .           .
               .           .
764            .           .       SUBNB
               .           .           .
               .           .           .
776            .           .           .------->   RETNB
773            .           .       RETNB
               .           .           .
               .           .           .
779            .       CPNB1............
               .           V
               .           V
782            .      RTNBJD
               .           .
               .           .
789            .           .       SUBPD
               .           .           .
               .           .           .
797            .           .           .           .<-------    DIPD
795            .           .           .        DRPD
               .           .           .           .
               .           .           .           .
798            .           .       CPPD2............
               .           .           V
               .           .           V
801            .           .        RSPD
               .           .           V
               .           .           V
807            .           .      RTPDNC
               .           .           .
               .           .           .
814            .           .           .       SUBNC
               .           .           .           .
               .           .           .           .
823            .           .        CPNC............
               .           .           V
               .           .           V
826            .           .      RTNCJE
               .           .           .
               .           .           .
833            .           .           .      SUBJE1
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              .           .           .           .
              .           .           .           .
841           .           .       CPJE1............
              .           .           V
              .           .           V
844           .           .      RTJEJD
              .           .           .
              .           .           .
851           .           .           .       SUBJD
              .           .           .           .
              .           .           .           .
863           .           .           .           .------->   RETJD
860           .           .           .       RETJD
              .           .           .           .
              .           .           .           .
866           .        CPJD........................
              .           .
              .           .
871           .           .------->   DIJC2
869           .      DIJDJC
              .           V
              .           V
874           .      RTJDFC
              .           .
              .           .
881           .           .      SUBJE2
              .           .           .
              .           .           .
893           .           .           .------->   RETJE
890           .           .      RETJE2
              .           .           V
              .           .           V
896           .           .      RTJEFC
              .           .           .
              .           .           .
903           .           .           .       SUBFC
              .           .           .           .
              .           .           .           .
912           .        CPFC........................
              .           .
              .           .
915      CPFCSR............
              .
              .
920           .           .<-------    DIUB
918           .      DRUCUB
              .           V
              .           V
921           .      MCUCUB
              .           .
              .           .
929           .           .       SUBUB
              .           .           .
              .           .           .
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 939     .     ~@CPUB............
         .           .
         .           .
 942     .           .         SUBSF1
         .           .              .
         .           .              .
 957     .           .              .                   .<-------     DITB
 955     .           .              .                DRTB
         .           .              .                   V
         .           .              .                   V
 958     .           .              .             RTDITB
         .           .              .                   .
         .           .              .                   .
 966     .      CPBA3.......................
         .           .
         .           .
 969     .           .         SUBTB2
         .           .              .
         .           .              .
 983     .           .              .------->    RETTB
 980     .           .         RETTB
         .           .              .
         .           .              .
 988     .           .              .------->     DITA
 986     .           .         DITBTA
         .           .              V
         .           .              V
 991     .           .         RTTBSF
         .           .              .
         .           .              .
 998     .           .              .          SUSFB2
         .           .              .               .
         .           .              .               .
1007     .           .              .               .        SUSF2A
         .           .              .               .             .
         .           .              .               .             .
1019     .           .              .               .             .------->    RETSF2
1016     .           .              .               .        RSSF2A
         .           .              .               .             .
         .           .              .               .             .
1022     .           .         CPSF2B.......................
         .           .              .
         .           .              .
1025     .      CPBA3............
         .           V
         .           V
1028     .     BSN71
         .           .
         .           .
1037     .           .------->    BSN71
1035     .     DBSN71
         .           .
         .           .
1040     .           .         SUBPB
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               .           .           .
               .           .           .
1052           .           .           .------->   RETPB
1049           .           .       RETPB
               .           .           .
               .           .           .
1055           .           .           .       PB75
               .           .           .           .
               .           .           .           .
1064           .           .           .           .        PBBU
               .           .           .           .           .
               .           .           .           .           .
1073           .           .           .      CPBSD ............
               .           .           .           .
               .           .           .           .
1078           .           .           .           .-------> SD75PB
1076           .           .           .      DPBSD1
               .           .           .           .
               .           .           .           .
1083           .           .           .           .-------> SDBRPB
1081           .           .           .      DPBSD2
               .           .           .           .
               .           .           .           .
1086           .           .        CPPB............
               .           .           .
               .           .           .
1091           .           .           .------->   DIPA1
1089           .           .      DIPBPA
               .           .           .
               .           .           .
1094           .       CPPB1............
               .           V
               .           V
1097           .      RTPBNA
               .           .
               .           .
1104           .           .      SUBNA
               .           .           .
               .           .           .
1117           .           .           .------->   RETNA
1114           .           .       RETNA
               .           .           .
               .           .           .
1120           .           .           .        NA75
               .           .           .           .
               .           .           .           .
1129           .           .           .           .        NALB
               .           .           .           .           .
               .           .           .           .           .
1138           .           .           .       CNASD............
               .           .           .           .
               .           .           .           .
1141           .      CPNA1 ........................
               .           .
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               .          .
1146           .          .-------->  SD75NA
1144           .      DNASD1
               .          .
               .          .
1151           .          .-------->  SDLBNA
1149           .      DNASD2
               .          .
               .          .
1156           .          .-------->   ADMP1
1154           .      DADMP1
               .          .
               .          .
1159           .          .     SUBJC1
               .          .          .
               .          .          .
1172           .          .          .-------->  RETJC1
1169           .          .     RETJC1
               .          .          .
               .          .          .
1175           .          .          .       JC75
               .          .          .          .
               .          .          .          .
1184           .          .     CJCSD1...........
               .          .          .
               .          .          .
1187           .          .          .     SUBJC2
               .          .          .          .
               .          .          .          .
1201           .          .          .          .-------->  RETJC2
1197           .          .          .     RETJC2
               .          .          .          .
               .          .          .          .
1208           .          .          .          .-------->  DETJC2
1204           .          .          .     DETJC2
               .          .          .          V
               .          .          .          V
1211           .          .          .     RTJCJC
               .          .          .          .
               .          .          .          .
1218           .          .     CPJC1A...........
               .          .          .
               .          .          .
1221           .          .          .       JCBR
               .          .          .          .
               .          .          .          .
1230           .          .     CJCSD2...........
               .          .          .
               .          .          .
1233           .      CPJC1B...........
               .          .
               .          .
1238           .          .-------->  SDOSBR
1236           .      DJC2SD
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              .          .
              .          .
1243          .          .-------->   SD75JC
1241          .     DJCSD1
              .          .
              .          .
1248          .          .                .<-------    DIJC2
1246          .          .          DIJD
              .          .                V
              .          .                V
1249          .          .         RTJCJC
              .          .                .
              .          .                .
1256          .      CPJC2............
              .          .
              .          .
1261          .          .-------->    DIJB2
1259          .     DIJCJB
              .          V
              .          V
1264          .     RTJCFB
              .          .
              .          .
1273          .          .                .<-------    BSN71
1271          .          .          DRB71
              .          .                V
              .          .                V
1274          .          .         RT71PB
              .          .                .
              .          .                .
1281          .          .                .                 .<-------    SD75PB
1279          .          .                .          RSDPB1
              .          .                .                 .
              .          .                .                 .
1282          .          .         CPPBS1............
              .          .                .
              .          .                .
1287          .          .                .                 .<-------    SDBRPB
1285          .          .                .          RSDPB2
              .          .                .                 .
              .          .                .                 .
1288          .          .         CPPBS2............
              .          .                V
              .          .                V
1291          .          .         RTPBNA
              .          .                .
              .          .                .
1297          .          .                .                 .<-------    SD75NA
1295          .          .                .          RSDNA1
              .          .                .                 .
              .          .                .                 .
1298          .          .         CPNAS1............
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1303            .           .           .           .<-------  SDLBNA
1301            .           .           .      RSDNA2
                .           .           .           .
                .           .           .           .
1304            .           .      CPNAS2............
                .           .           V
                .           .           V
1307            .           .      RTNAJC
                .           .           .
                .           .           .
1313            .           .           .           .<-------  SD75JC
1311            .           .           .      RSDJC1
                .           .           .           .
                .           .           .           .
1314            .           .      CPJCS1............
                .           .           .
                .           .           .
1319            .           .           .           .<-------  SDOSBR
1317            .           .           .      RSDJC3
                .           .           .           .
                .           .           .           .
1320            .           .      CPJCS3............
                .           .           V
                .           .           V
1323            .           .      RTJCFB
                .           .           .
                .           .           .
1327            .           .           .        FB75
                .           .           .           .
                .           .           .           .
1336            .           .        CPFB............
                .           .           .
                .           .           .
1339        DUMM.........................
                .
                .
1342            .      SUBSH
                .           .
                .           .
1352            .           .------->   RETSH
1350            .      RETSH
                .           V
                .           V
1355            .       RSSH
                .           .
                .           .
1364            .           .------->   DIRJ2
1362            .     DISHRJ
                .           V
                .           V
1367            .     RTSHSG
                .           .
                .           .
1374            .           .      SUBTA
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                 .          .          .
                 .          .          .
1385             .          .          .-------->   RETTA
1383             .          .      RETTA
                 .          .          .
                 .          .          .
1391             .          .          .          .<-------     DITA
1388             .          .          .       DRTA
                 .          .          .          V
                 .          .          .          V
1392             .          .          .     RTDITA
                 .          .          .          .
                 .          .          .          .
1399             .          .      @CPTA............
                 .          .          V
                 .          .          V
1402             .          .     RTTASG
                 .          .          .
                 .          .          .
1409             .          .          .      SUBSG
                 .          .          .          .
                 .          .          .          .
1419             .          .          .          .-------->   RETSG
1417             .          .          .      RETSG
                 .          .          .          .
                 .          .          .          .
1422             .      CPSG.......................
                 .          V
                 .          V
1425             .      RSSG
                 .          .
                 .          .
1433             .          .-------->   DIRJ4
1431             .    DISGRJ
                 .          V
                 .          V
1436             .    RTSGSE
                 .          .
                 .          .
1443             .          .      SUBSC
                 .          .          .
                 .          .          .
1454             .          .          .-------->   RETSC
1452             .          .      RETSC
                 .          .          .
                 .          .          .
1459             .          .          .-------->    DISD
1457             .          .     DISCSD
                 .          .          V
                 .          .          V
1462             .          .     RTSCSE
                 .          .          .
                 .          .          .
1469             .          .          .      SUBSE
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                .           .           .           .
                .           .           .           .
1479            .           .           .           .------->   RETSE
1477            .           .           .       RETSE
                .           .           .           .
                .           .           .           .
1482            .       CPSE.........................
                .           V
                .           V
1485            .       RSSE
                .           .
                .           .
1493            .           .------->   DIRJ5
1491            .     DISERJ
                .           V
                .           V
1496            .     RTSERI
                .           .
                .           .
1503            .           .      SUBRJ
                .           .           .
                .           .           .
1514            .           .           .------->   RETRJ
1512            .           .      RETRJ
                .           .           .
                .           .           .
1519            .           .           .           .<-------   DIRJ2
1517            .           .           .       CPRJ2
                .           .           .           V
                .           .           .           V
1520            .           .           .     RTSHRJ
                .           .           .           V
                .           .           .           V
1527            .           .           .     RTRJ3
                .           .           .           .
                .           .           .           .
1536            .           .           .           .           .<-------   DIRJ4
1534            .           .           .           .      CPRJ4A
                .           .           .           .           .
                .           .           .           .           .
1537            .           .           .     CPRJ4B.............
                .           .           .           V
                .           .           .           V
1540            .           .           .     RTSGRJ
                .           .           .           .
                .           .           .           .
1549            .           .           .           .           .<-------   DIRJ5
1547            .           .           .           .       CPRJ5
                .           .           .           .           V
                .           .           .           .           V
1550            .           .           .           .      RTSERJ
                .           .           .           .           .
                .           .           .           .           .
1557            .           .     @CPRJ6.........................
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               .           .           V
               .           .           V
1560           .           .        RSRJ
               .           .           .
               .           .           .
1569           .           .           .------->    DIPA2
1567           .           .      DIRJPA
               .           .           V
               .           .           V
1572           .           .      RTRJRI
               .           .           V
               .           .           V
1579           .           .      RTRIRI
               .           .           .
               .           .           .
1585           .           .           .       SUBRI
               .           .           .           .
               .           .           .           .
1595           .           .           .           .------->    RETRI
1593           .           .           .       RETRI
               .           .           .           .
               .           .           .           .
1598           .           .           .           .       SUBSB
               .           .           .           .           .
               .           .           .           .           .
1608           .           .           .           .           .------->    RETSB
1606           .           .           .           .       RETSB
               .           .           .           .           V
               .           .           .           .           V
1611           .           .           .           .        RSSB
               .           .           .           .           .
               .           .           .           .           .
1617           .           .           .           .           .       SUBSD
               .           .           .           .           .           .
               .           .           .           .           .           .
1627           .           .           .           .           .           .------->    RETSD
1625           .           .           .           .           .       RETSD
               .           .           .           .           .           .
               .           .           .           .           .           .
1632           .           .           .           .           .           .           .<-------    DISD
1630           .           .           .           .           .           .        DRSD
               .           .           .           .           .           .           .
               .           .           .           .           .           .           .
1633           .           .           .           .       @CPSD........................
               .           .           .           .           V
               .           .           .           .           V
1637           .           .           .           .        RSSD
               .           .           .           .           V
               .           .           .           .           V
1644           .           .           .           .      RTSDRI
               .           .           .           .           .
               .           .           .           .           .
1651           .      ~@CPRI....................................
               .           V
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                .           V
1654            .      MCRIRH
                .           .
                .           .
1661            .           .       SUBPA
                .           .           .
                .           .           .
1672            .           .           .------->   RETPA
1670            .           .       RETPA
                .           .           .
                .           .           .
1677            .           .           .           .<-------   DIPA2
1675            .           .           .       DRPA2
                .           .           .           V
                .           .           .           V
1678            .           .           .      RTRJPA
                .           .           .           .
                .           .           .           .
1685            .           .       CPPA.............
                .           .           .
                .           .           .
1690            .           .           .------->    DIOE
1688            .           .      DIPAOE
                .           .           V
                .           .           V
1693            .           .      RTPAMH
                .           .           .
                .           .           .
1700            .           .           .       SUBMH
                .           .           .           .
                .           .           .           .
1710            .           .           .           .------->   RETMH
1708            .           .           .       RETMH
                .           .           .           .
                .           .           .           .
1713            .           .       CPMH.............
                .           .           V
                .           .           V
1716            .           .      RTMHMD
                .           .           .
                .           .           .
1723            .           .           .       SUBMD
                .           .           .           .
                .           .           .           .
1734            .           .           .           .------->   RETMD
1732            .           .           .       RETMD
                .           .           .           .
                .           .           .           .
1737            .           .       CPMD.............
                .           .           .
                .           .           .
1742            .           .           .------->   DIJB1
1740            .           .      DIMDJB
                .           .           .
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                .           .           .
1748            .           .           .------->   DIMFX
1745            .           .      DIMDMF
                .           .           .
                .           .           .
1751            .           .           .       SUBMI
                .           .           .           .
                .           .           .           .
1761            .           .           .           .------->   RETMI
1759            .           .           .       RETMI
                .           .           .           .
                .           .           .           .
1764            .           .           .           .       SUBMG
                .           .           .           .            .
                .           .           .           .            .
1773            .           .           .           .            .------->   RETMG
1771            .           .           .           .       RETMG
                .           .           .           .            .
                .           .           .           .            .
1776            .           .           .        CPMG.............
                .           .           .           V
                .           .           .           V
1779            .           .           .      RTMGJB
                .           .           .           .
                .           .           .           .
1787            .           .           .           .      SUBJB1
                .           .           .           .            .
                .           .           .           .            .
1799            .           .           .           .            .------->  RETJB1
1796            .           .           .           .      RETJB1
                .           .           .           .            .
                .           .           .           .            .
1804            .           .           .           .            .           .<-------   DIJB1
1802            .           .           .           .            .       DRJB
                .           .           .           .            .           V
                .           .           .           .            .           V
1805            .           .           .           .            .     RDIJB1
                .           .           .           .            .           .
                .           .           .           .            .           .
1815            .           .           .           .            .           .           .<-------   ADMP1
1812            .           .           .           .            .           .      ADMP1
                .           .           .           .            .           .           V
                .           .           .           .            .           .           V
1816            .           .           .           .            .           .     MCJCJB
                .           .           .           .            .           .           .
                .           .           .           .            .           .           .
1824            .           .     ~CPJB1..................................................
                .           .           V
                .           .           V
1828            .           .      RRJB1
                .           .           .
                .           .           .
1840            .           .           .------->   DIED
1837            .           .       DIED
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               .            .           .
               .            .           .
1843           .            .           .       SUBOE
               .            .           .           .
               .            .           .           .
1854           .            .           .           .------->   RETOE
1852           .            .           .       RETOE
               .            .           .           .
               .            .           .           .
1859           .            .           .           .           .<-------    DIOE
1857           .            .           .           .       CPOE1
               .            .           .           .           V
               .            .           .           .           V
1860           .            .           .           .      RTDIOE
               .            .           .           .           .
               .            .           .           .           .
1867           .            .           .       @CPOE............
               .            .           .           .
               .            .           .           .
1872           .            .           .           .------->    DIOD
1870           .            .           .      DIOEOD
               .            .           .           V
               .            .           .           V
1875           .            .           .      RTOEMF
               .            .           .           .
               .            .           .           .
1882           .            .           .           .       SUBMF
               .            .           .           .           .
               .            .           .           .           .
1893           .            .           .           .           .------->   RETMF
1891           .            .           .           .       RETMF
               .            .           .           .           .
               .            .           .           .           .
1898           .            .           .           .           .           .<-------   DIMFX
1896           .            .           .           .           .        CPMF
               .            .           .           .           .           V
               .            .           .           .           .           V
1899           .            .           .           .           .      RTMDMF
               .            .           .           .           .           .
               .            .           .           .           .           .
1906           .            .           .       CPMF1........................
               .            .           .           .
               .            .           .           .
1911           .            .           .           .------->    DIEB
1909           .            .           .      DIMFEB
               .            .           .           V
               .            .           .           V
1914           .            .           .      RTMFMC
               .            .           .           .
               .            .           .           .
1921           .            .           .           .       SUBOD
               .            .           .           .           .
               .            .           .           .           .
1932           .            .           .           .           .------->   RETOD
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1930           .           .           .           .       RETOD
               .           .           .           .           .
               .           .           .           .           .
1937           .           .           .           .           .           .<-------    DIOD
1935           .           .           .           .           .        DROD
               .           .           .           .           .           V
               .           .           .           .           .           V
1938           .           .           .           .           .      RTDIOD
               .           .           .           .           .           .
               .           .           .           .           .           .
1944           .           .           .           .        CPOD............
               .           .           .           .           .
               .           .           .           .           .
1949           .           .           .           .           .------->    DIOC
1947           .           .           .           .      DIODOC
               .           .           .           .           V
               .           .           .           .           V
1952           .           .           .           .      RTODMC
               .           .           .           .           .
               .           .           .           .           .
1959           .           .           .           .           .       SUBMC
               .           .           .           .           .           .
               .           .           .           .           .           .
1969           .           .           .           .           .           .------->    RETMC
1967           .           .           .           .           .       RETMC
               .           .           .           .           .           .
               .           .           .           .           .           .
1972           .           .           .       CPMC1........................
               .           .           .           .
               .           .           .           .
1977           .           .           .           .------->    DIMB
1975           .           .           .      DIMCMB
               .           .           .           V
               .           .           .           V
1980           .           .           .      RTMCIE
               .           .           .           .
               .           .           .           .
1989           .           .           .           .------->    MCIE
1987           .           .           .      DIMCIE
               .           .           .           .
               .           .           .           .
1994           .           .           .           .           .<-------    DIEB
1992           .           .           .           .        DREB
               .           .           .           .           .
               .           .           .           .           .
1995           .           .           .           .           .       SUBEB
               .           .           .           .           .           .
               .           .           .           .           .           .
2005           .           .           .           .           .           .------->    RETEB
2003           .           .           .           .           .       RETEB
               .           .           .           .           .           .
               .           .           .           .           .           .
2008           .           .           .           .        CPEB............
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               .           .           .           .          .
2012           .           .           .           .          .           .<-------    DIED
2010           .           .           .           .          .       RDIED
               .           .           .           .          .           V
               .           .           .           .          .           V
2013           .           .           .           .          .      RJBED1
               .           .           .           .          .           V
               .           .           .           .          .           V
2020           .           .           .           .          .      RJBED2
               .           .           .           .          .           .
               .           .           .           .          .           .
2028           .           .           .           .          .           .     SUBED1
               .           .           .           .          .           .           .
               .           .           .           .          .           .           .
2044           .           .           .           .          .           .           .------->  RETED1
2037           .           .           .           .          .           .     RETED1
               .           .           .           .          .           .           .
               .           .           .           .          .           .           .
2047           .           .           .           .          .           .           .       SUBED2
               .           .           .           .          .           .           .          .
               .           .           .           .          .           .           .          .
2058           .           .           .           .          .           .           .          .------->  RETED2
2055           .           .           .           .          .           .           .     RETED2
               .           .           .           .          .           .           .          .
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2061           .           .           .           .          .           .     CPED1 ............
               .           .           .           .          .           .           .
               .           .           .           .          .           .           .
2064           .           .           .           .          .     ~CPED1............
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               .           .           .           .          .           .
2067           .           .           .           .     ~CPED2............
               .           .           .           .          V
               .           .           .           .          V
2070           .           .           .           .     RRED
               .           .           .           .          V
               .           .           .           .          V
2076           .           .           .           .     RT95
               .           .           .           .          V
               .           .           .           .          V
2082           .           .           .           .     95BASI
               .           .           .           .          V
               .           .           .           .          V
2092           .           .           .           .     RT99
               .           .           .           .          .
               .           .           .           .          .
2098           .           .           .           .          .      SUBID1
               .           .           .           .          .           .
               .           .           .           .          .           .
2112           .           .           .           .          .           .------->  RETID1
2108           .           .           .           .          .      RETID1
               .           .           .           .          .           .
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2115           .           .           .           .          .           .     SUBID2
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2129            .           .           .           .           .           .           .-------> RETID2
2125            .           .           .           .           .           .      RETID2
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                .           .           .           .           .           .           .
2132            .           .           .           .           .           .           .        SUBIE
                .           .           .           .           .           .           .           .
                .           .           .           .           .           .           .           .
2144            .           .           .           .           .           .           .           .-------> RETIE
2142            .           .           .           .           .           .           .       RETIE
                .           .           .           .           .           .           .           .
                .           .           .           .           .           .           .           .
2149            .           .           .           .           .           .           .           .           .<-------   MCIE
2147            .           .           .           .           .           .           .           .      DRMCIE
                .           .           .           .           .           .           .           .           .
                .           .           .           .           .           .           .           .           .
2150            .           .           .           .           .      ~CPID2.....................................
                .           .           .           .           .           V
                .           .           .           .           .           V
2152            .           .           .           .           .      RRID1
                .           .           .           .           .           .
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2165            .           .           .           .       CPID3............
                .           .           .           .           V
                .           .           .           .           V
2167            .           .           .           .      RT107
                .           .           .           .           .
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2177            .           .           .           .           .      SUBIB
                .           .           .           .           .           .
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2190            .           .           .           .           .           .-------> RETIB
2187            .           .           .           .           .      RETIB
                .           .           .           .           .           .
                .           .           .           .           .           .
2193            .           .           .           .           .           .      SUBIC
                .           .           .           .           .           .           .
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2206            .           .           .           .           .           .           .-------> RETIC
2203            .           .           .           .           .           .      RETIC
                .           .           .           .           .           .           .
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2209            .           .           .           .           .       CPIC............
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2212            .           .           .           .           .           .      SUBOC
                .           .           .           .           .           .           .
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2223            .           .           .           .           .           .           .-------> RETOC
2221            .           .           .           .           .           .      RETOC
                .           .           .           .           .           .           .
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2228            .           .           .           .           .           .           .           .<-------   DIOC
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2226            .           .           .           .           .           .           .        DROC
                .           .           .           .           .           .           .           V
                .           .           .           .           .           .           .           V
2229            .           .           .           .           .           .           .      RTDIOC
                .           .           .           .           .           .           .           .
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2236            .           .           .           .           .           .        CPOC............
                .           .           .           .           .           .           V
                .           .           .           .           .           .           V
2239            .           .           .           .           .           .      RTOCMB
                .           .           .           .           .           .           .
                .           .           .           .           .           .           .
2246            .           .           .           .           .           .           .       SUBMB
                .           .           .           .           .           .           .           .
                .           .           .           .           .           .           .           .
2258            .           .           .           .           .           .           .           .------->   RETMB
2256            .           .           .           .           .           .           .       RETMB
                .           .           .           .           .           .           .           .
                .           .           .           .           .           .           .           .
2263            .           .           .           .           .           .           .           .           .<-------    DIMB
2261            .           .           .           .           .           .           .           .        DRMB
                .           .           .           .           .           .           .           .           V
                .           .           .           .           .           .           .           .           V
2264            .           .           .           .           .           .           .           .      RTDIMB
                .           .           .           .           .           .           .           .           .
                .           .           .           .           .           .           .           .           .
2271            .           .           .           .           .           .       @CPMB........................
                .           .           .           .           .           .           V
                .           .           .           .           .           .           V
2274            .           .           .           .           .           .      RTMBIB
                .           .           .           .           .           .           .
                .           .           .           .           .           .           .
2281            .           .           .           .           .       CPIB0............
                .           .           .           .           .           .
                .           .           .           .           .           .
2284            .           .           .     @CPIB2........................
                .           .           .           V
                .           .           .           V
2287            .           .           .        RRIB
                .           .           .           V
                .           .           .           V
2299            .           .           .      MCIBIA
                .           .           .           .
                .           .           .           .
2306            .           .           .           .       SUBME
                .           .           .           .           .
                .           .           .           .           .
2317            .           .           .           .           .------->   RETME
2315            .           .           .           .       RETME
                .           .           .           .           V
                .           .           .           .           V
2320            .           .           .           .      RTMEIA
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2327            .            .           .            .            .       SUBIA
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2342            .            .           .            .            .            .-------->   RETIA
2338            .            .           .            .            .       RETIA
                .            .           .            .            .            .
                .            .           .            .            .            .
2345            .            .           .       ~CPIA...........................
                .            .           .            V
                .            .           .            V
2348            .            .           .      MCIAHB
                .            .           .            .
                .            .           .            .
2355            .            .           .            .        SUBHB
                .            .           .            .            .
                .            .           .            .            .
2370            .            .           .            .            .-------->   RETHB
2366            .            .           .            .        RETHB
                .            .           .            .            .
                .            .           .            .            .
2373            .            .           .       CPHB1..............
                .            .           .            .
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2376            .            .           .            .        SUBDA
                .            .           .            .            .
                .            .           .            .            .
2392            .            .           .            .            .-------->   RETDA
2388            .            .           .            .        RETDA
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                .            .           .            .            .
2395            .            .           .       ~CPDA..............
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2398            .            .           .            .        SUBLD
                .            .           .            .            .
                .            .           .            .            .
2409            .            .           .            .            .-------->   RETLD
2407            .            .           .            .        RETLD
                .            .           .            .            V
                .            .           .            .            V
2412            .            .           .            .      RTLDMA
                .            .           .            .            .
                .            .           .            .            .
2419            .            .           .            .            .       SUBMA
                .            .           .            .            .            .
                .            .           .            .            .            .
2430            .            .           .            .            .            .-------->   RETMA
2428            .            .           .            .            .       RETMA
                .            .           .            .            .            .
                .            .           .            .            .            .
2433            .            .           .            .        CPMA..............
                .            .           .            .            V
                .            .           .            .            V
2436            .            .           .            .      RTMAHB
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2443           .           .           .       CPHB2............
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2446           .           .           .           .       SUBLB
               .           .           .           .           .
               .           .           .           .           .
2457           .           .           .           .           .------->   RETLB
2455           .           .           .           .       RETLB
               .           .           .           .           V
               .           .           .           .           V
2460           .           .           .           .      RTLBHA
               .           .           .           .           .
               .           .           .           .           .
2467           .           .           .           .           .       SUBHA
               .           .           .           .           .           .
               .           .           .           .           .           .
2478           .           .           .           .           .           .------->   RETHA
2476           .           .           .           .           .       RETHA
               .           .           .           .           .           .
               .           .           .           .           .           .
2481           .           .           .        CPHA........................
               .           .           .           V
               .           .           .           V
2484           .           .           .      MCHACB
               .           .           .           .
               .           .           .           .
2491           .           .           .           .       SUBEA
               .           .           .           .           .
               .           .           .           .           .
2508           .           .           .           .           .------->   RETEA
2504           .           .           .           .       RETEA
               .           .           .           .           V
               .           .           .           .           V
2511           .           .           .           .      RTEADC
               .           .           .           .           .
               .           .           .           .           .
2519           .           .           .           .           .       SUBDC
               .           .           .           .           .           .
               .           .           .           .           .           .
2535           .           .           .           .           .           .------->   RETDC
2531           .           .           .           .           .       RETDC
               .           .           .           .           .           .
               .           .           .           .           .           .
2541           .           .           .           .           .           .------->   EXRET
2538           .           .           .           .           .       EXRET
               .           .           .           .           .           .
               .           .           .           .           .           .
2544           .           .           .           .           .           .       SUBDD
               .           .           .           .           .           .           .
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2558           .           .           .           .           .           .           .------->   RETDD
2554           .           .           .           .           .           .       RETDD
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2561   .    .    .    .    .    .  RTDDDC
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       .    .    .    .    .    .    .
2568   .    .    .    .  ~CPDC......................
       .    .    .    .    V
       .    .    .    .    V
2571   .    .    .    .  RTDCCC
       .    .    .    .    .
       .    .    .    .    .
2579   .    .    .    .    .     SUBCC
       .    .    .    .    .       .
       .    .    .    .    .       .
2596   .    .    .    .    .       .------->   RETCC
2591   .    .    .    .    .     RETCC
       .    .    .    .    .       .
       .    .    .    .    .       .
2599   .    .    .    .  ~CPCC............
       .    .    .    .    V
       .    .    .    .    V
2601   .    .    .    .  RTCCSC
       .    .    .    .    V
       .    .    .    .    V
2609   .    .    .    .  RTCCSC
       .    .    .    .    .
       .    .    .    .    .
2616   .    .    .    .    .     SUBCB
       .    .    .    .    .       .
       .    .    .    .    .       .
2628   .    .    .    .    .       .------->   RETCB
2626   .    .    .    .    .     RETCB
       .    .    .    .    .       .
       .    .    .    .    .       .
2631   .    .    .  ~CPCB1.........................
       .    .    .    .
       .    .    .    .
2633   .    .    .    .  SUBGD1
       .    .    .    .    .
       .    .    .    .    .
2644   .    .    .    .    .------->   RETGD1
2642   .    .    .    .  RETGD1
       .    .    .    .    .
       .    .    .    .    .
2647   .    .    .    .    .     SUBGD2
       .    .    .    .    .       .
       .    .    .    .    .       .
2659   .    .    .    .    .       .------->   RETGD2
2657   .    .    .    .    .     RETGD2
       .    .    .    .    .       .
       .    .    .    .    .       .
2662   .    .    .    .   CPGD ...........
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2665            .           .           .           .           .       SUBKC
                .           .           .           .           .           .
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2676            .           .           .           .           .           .------->   RETKC
2674            .           .           .           .           .       RETKC
                .           .           .           .           .           V
                .           .           .           .           .           V
2679            .           .           .           .           .      RTKCGD
                .           .           .           .           .           .
                .           .           .           .           .           .
2687            .           .           .           .           .           .       SUBGC
                .           .           .           .           .           .           .
                .           .           .           .           .           .           .
2702            .           .           .           .           .           .           .------->   RETGC
2698            .           .           .           .           .           .       RETGC
                .           .           .           .           .           .           V
                .           .           .           .           .           .           V
2705            .           .           .           .           .           .      RTGCGD
                .           .           .           .           .           .           .
                .           .           .           .           .           .           .
2712            .           .           .           .       CPGD1........................
                .           .           .           .           V
                .           .           .           .           V
2715            .           .           .           .      RTGDCB
                .           .           .           .           .
                .           .           .           .           .
2721            .           .           .      ~CPCB2............
                .           .           .           V
                .           .           .           V
2724            .           .           .      MCCBCA
                .           .           .           .
                .           .           .           .
2731            .           .           .           .      SUBCA1
                .           .           .           .           .
                .           .           .           .           .
2747            .           .           .           .           .------->   RETCA1
2743            .           .           .           .      RETCA1
                .           .           .           .           .
                .           .           .           .           .
2750            .           .           .           .           .      SUBCA2
                .           .           .           .           .           .
                .           .           .           .           .           .
2762            .           .           .           .           .           .------->   RETCA2
2760            .           .           .           .           .      RETCA2
                .           .           .           .           .           .
                .           .           .           .           .           .
2765            .           .           .      ~CPCA1........................
                .           .           .           .
                .           .           .           .
2769            .           .           .           .       SUBGB
                .           .           .           .           .
                .           .           .           .           .
2784            .           .           .           .           .------->   RETGB
2780            .           .           .           .       RETGB
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                                                                 V
 2787            .           .           .           .       RTGBCA
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                 .           .           .           .           .
 2794            .           .           .      ~CPCA2............
                 .           .           .           .
                 .           .           .           .
 2799            .           .           .           .------->  B-DRCC
 2797            .           .           .      P-DRCC
                 .           .           .           V
                 .           .           .           V
 2802            .           .           .      MCCABC
                 .           .           .           .
                 .           .           .           .
 2808            .           .           .           .       SUBBC1
                 .           .           .           .           .
                 .           .           .           .           .
 2818            .           .           .           .           .------->  RETBC1
 2816            .           .           .           .       RETBC1
                 .           .           .           .           .
                 .           .           .           .           .
 2821            .           .           .           .           .       SUBBC2
                 .           .           .           .           .           .
                 .           .           .           .           .           .
 2833            .           .           .           .           .           .------->  RETBC2
 2831            .           .           .           .           .       RETBC2
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 2836            .           .           .       ~CPBC......................
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 2840            .           .     CPAFBC............

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION
1****************************************                                                    ****************************************
 *                                       *                                                    *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *                                                    *   U.S. ARMY CORPS OF ENGINEERS       *
 *             JUN   1998                *                                                    *   HYDROLOGIC ENGINEERING CENTER      *
 *            VERSION 4.1                *                                                    *       609 SECOND STREET              *
 *                                       *                                                    *     DAVIS, CALIFORNIA 95616          *
 *  RUN DATE   19OCT06  TIME  15:05:40   *                                                    *         (916) 756-1104               *
 *                                       *                                                    *                                      *
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REC6DRCH.DAT
SEPTEMBER 2006
100-YEAR 6-HOUR
THIS REVISION MODIFIES THE FOLLOWING SUBBASINS:
Sub-basin JB2 TO routing RTEEEA REMOVED due to Tres Rios Project.
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Subbasin EA: Reduced area by 73% due to Tres Rios Project.
Changed retention volume to reflect reduced drainage area.
Subbasins CC, DD, DC, and EA: assumed medium density development for all future development.
Routings DDCC and EADC: existing conditions routing used insted of the proposed Sunland Channel routing.
Smaller Sunland Channel used to route CCSC and DCCC.
Moved subbasin DD to route to CPDC.
Hard coded contributing area in HC cards for ~CPCC, ~CPDC, and CPEA due to Tres Rios diversion.
Diverted flow from subbasins EA, DD, CC, and DC to model 100-YR 6-HR future development retention.
by Aspen Consulting Engineers
REC6FINAL.DAT
ASPEN CONSULTING ENGINEERS, JCS and POL, JANUARY 25, 2006
6-HOUR RAINFALL
DURANGO REGIONAL CONVEYANCE CHANNEL AND SUNLAND CHANNEL
AVONDALE AND PHOENIX ARIZONA
THIS HEC-1 MODEL IS THE SAME AS THE REC6.DAT MODEL FOR THE SAME AREA, DATED NOVEMBER 9, 2005 AND DELIVERED TO THE FCDMC ON DECEMBER 23, 2005, WITH THE FOLLOWING CHANGES:

1. ROUTING AT KKMCJCJB (75TH AVENUE TO 83RD AVENUE) MODIFIED TO ROUTE OVER DETENTION BASINS IN DRCC ALIGNMENT (THESE RETENTION BASINS FOR LOCAL SUBDIVISIONS ASSUMED TO BE CONVERTED TO FLOW-THROUGH BY NEW CULVERT IN 83RD AVENUE AT DRCC ALIGNMENT)
2. MODIFIED PULS ROUTING AT RRJB1 (83RD AVENUE) MODIFIED TO CONFORM TO UPDATED CULVERT SIZE AND FIELD MEASUREMENTS OF RETENTION BASIN CAPACITY UPSTREAM OF 83RD AVENUE
3. KKRJBED1 AND KKRJBED2 ROUTING ADDED TO ROUTE FLOW FROM 83RD TO 91ST. THIS IS 8-POINT CROSS SECTION ROUTING OVER EXISTING SUBDIVISION RETENTION
4. RETENTION FOR SUBBASIN ED1 IS MODIFIED TO ACCOUNT FOR A PORTION OF THE 100-YEAR 2-HOUR RETENTION REMAINING AFTER CONSTRUCTION OF A 10-YEAR CULVERT AT 91ST AVENUE. THAT PORTION OF THE RETENTION UPSTREAM OF AN IRRIGATION CANAL LOCATED AT THE HALFWAY POINT OF THIS BASIN IS ASSUMED TO REMAIN IN PLACE. THE REST IS ASSUMED TO BE CONVERTED TO DETENTION BY CONSTRUCTION OF A CULVERT AT 91ST AVENUE.
5. RETENTION FOR SUBBASIN ED2 IS MODIFIED TO ASSUME 100-YEAR, 2-HOUR RETENTION WILL REMAIN IN PLACE AFTER CONSTRUCTION OF A CULVERT AT 91ST AVENUE.
6. DETENTION AT KKRRED IN DRCC ALIGNMENT AT 91ST AVENUE IS REVISED TO REFLECT MODIFIED BOX CULVERT AND FIELD MEASUREMENTS OF EXISTING RETENTION BASIN UPSTREAM OF 91ST AVENUE
7. ROUTING USING 8-POINT CROSS SECTION ADDED FOR FLOW ALONG DRCC ALIGNMENT FROM 91ST AVENUE TO 107TH AVENUE. THIS IS KKRT95, WHICH TAKES THE FLOW 91ST TO THE 95TH BASIN, KKRT99, WHICH TAKES THE FLOW FROM 95TH BASIN TO 99TH, AND KKRT107, WHICH TAKES THE FLOW FROM 99TH TO 107TH. THE ROUTI CHANNEL IS AN EXISTING CHANNNEL WITH 20-FOOT BOTTOM WIDTH, DEPTH APPROXIMATELY 7 FEET, AND TOP WIDTH APPROXIMATELY 65 FEET. UNDER CURRENT CONDITIONS THIS CHANNEL ENDS APPROXIMATELY 1300 FEET UPSTREAM OF 107TH.
8. AN IN-LINE DETENTION BASIN IS PLACED SOUTH OF THE DRCC ALIGNMENT JUST DOWNSTREAM OF 95TH AVENUE. THIS IS KK95BASIN
9. SINCE BREACHING EXISTING RETENTION BASINS IS UNLIKELY, SUBBASINS ID1 AND ID2 ARE ASSUMED TO HAVE 100-YEAR 2-HOUR RETENTION
10. THE MODIFIED PULS ROUTING AT 99TH (KK RRID1)IS MODIFIED TO REFLECT THE

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                        EXISTING BOX CULVERT AND CHANNEL AT THAT
                        LOCATION
                    11. THE MODIFIED PULS ROUTING AT 107TH (KK  RRIB) IS MODIFIED TO REFLECT
                        A REVISED BOX CULVERT AT THAT LOCATION, AS WELL AS REVISED CHANNEL
                    12. THE OFFLINE DETENTION BASIN AT 99TH AVENUE IS REMOVED.

 66 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     9MAR95  STARTING DATE
                     ITIME       1200  STARTING TIME
                        NQ       2000  NUMBER OF HYDROGRAPH ORDINATES
                    NDDATE    16MAR95  ENDING DATE
                    NDTIME       1035  ENDING TIME
                     ICENT         19  CENTURY MARK

                COMPUTATION INTERVAL     .08 HOURS
                     TOTAL TIME BASE  166.58 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

 68 JD         INDEX STORM NO. 1
                      STRM       3.23  PRECIPITATION DEPTH
                      TRDA        .01  TRANSPOSITION DRAINAGE AREA

 69 PI          PRECIPITATION PATTERN
                    .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                    .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                    .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                    .00      .00      .00      .01      .01      .01      .01      .01      .01      .03
                    .03      .03      .05      .05      .05      .15      .15      .15      .03      .03
                    .03      .01      .01      .01      .01      .01      .01      .00      .00      .00
                    .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                    .00      .00

 72 JD         INDEX STORM NO. 2
                      STRM       3.21  PRECIPITATION DEPTH
                      TRDA        .50  TRANSPOSITION DRAINAGE AREA

  0 PI          PRECIPITATION PATTERN
                    .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                    .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                    .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
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                .00      .00      .00      .01      .01      .01      .01      .01      .01      .03
                .03      .03      .05      .05      .05      .15      .15      .15      .03      .03
                .03      .01      .01      .01      .01      .01      .01      .00      .00      .00
                .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                .00      .00

73 JD         INDEX STORM NO. 3
                 STRM        3.15  PRECIPITATION DEPTH
                 TRDA        2.80  TRANSPOSITION DRAINAGE AREA

74 PI           PRECIPITATION PATTERN
                .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                .00      .00      .00      .01      .01      .01      .01      .01      .01      .03
                .03      .03      .07      .07      .07      .08      .08      .08      .05      .05
                .05      .02      .02      .02      .01      .01      .01      .00      .00      .00
                .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                .00      .00

77 JD         INDEX STORM NO. 4
                 STRM        2.98  PRECIPITATION DEPTH
                 TRDA       16.00  TRANSPOSITION DRAINAGE AREA

78 PI           PRECIPITATION PATTERN
                .00      .00      .00      .00      .00      .00      .00      .00      .00      .01
                .01      .01      .00      .01      .00      .00      .00      .00      .00      .00
                .00      .00      .01      .00      .00      .00      .00      .01      .01      .01
                .01      .01      .01      .01      .01      .01      .02      .02      .02      .03
                .03      .03      .06      .06      .06      .07      .07      .07      .04      .04
                .04      .02      .02      .02      .01      .01      .01      .01      .01      .01
                .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                .00      .00

81 JD         INDEX STORM NO. 5
                 STRM        2.62  PRECIPITATION DEPTH
                 TRDA       90.00  TRANSPOSITION DRAINAGE AREA

82 PI           PRECIPITATION PATTERN
                .01      .01      .01      .00      .00      .00      .01      .01      .01      .01
                .01      .01      .01      .01      .01      .01      .01      .01      .01      .01
                .01      .01      .01      .01      .01      .01      .01      .01      .01      .01
                .01      .01      .01      .01      .01      .01      .02      .02      .02      .03
                .03      .03      .05      .05      .05      .05      .05      .05      .04      .04
                .04      .02      .02      .02      .02      .02      .02      .01      .01      .01
                .01      .01      .01      .01      .01      .01      .01      .01      .01      .01
                .01      .01

85 JD         INDEX STORM NO. 6
                 STRM        1.84  PRECIPITATION DEPTH
                 TRDA      500.00  TRANSPOSITION DRAINAGE AREA

86 PI           PRECIPITATION PATTERN
                .01      .01      .01      .01      .01      .01      .01      .01      .01      .01
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| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| .01 | .01 | .01 | .01 | .01 | .01 | .01 | .01 | .01 | .01 |
| .01 | .01 | .01 | .01 | .01 | .01 | .01 | .01 | .01 | .01 |
| .01 | .01 | .01 | .01 | .01 | .01 | .02 | .02 | .02 | .03 |
| .03 | .03 | .04 | .04 | .04 | .04 | .04 | .04 | .04 | .04 |
| .04 | .03 | .03 | .03 | .02 | .02 | .02 | .01 | .01 | .01 |
| .01 | .01 | .01 | .01 | .01 | .01 | .01 | .01 | .01 | .01 |
| .01 | .01 | | | | | | | | |

WARNING --- ROUTED OUTFLOW ( 2259.) IS GREATER THAN MAXIMUM OUTFLOW ( 2200.) IN STORAGE-OUTFLOW TABLE

WARNING --- ROUTED OUTFLOW ( 2264.) IS GREATER THAN MAXIMUM OUTFLOW ( 2200.) IN STORAGE-OUTFLOW TABLE

WARNING --- ROUTED OUTFLOW ( 2249.) IS GREATER THAN MAXIMUM OUTFLOW ( 2200.) IN STORAGE-OUTFLOW TABLE

WARNING --- ROUTED OUTFLOW ( 2209.) IS GREATER THAN MAXIMUM OUTFLOW ( 2200.) IN STORAGE-OUTFLOW TABLE

WARNING --- ROUTED OUTFLOW ( 2221.) IS GREATER THAN MAXIMUM OUTFLOW ( 2200.) IN STORAGE-OUTFLOW TABLE

WARNING --- ROUTED OUTFLOW ( 2238.) IS GREATER THAN MAXIMUM OUTFLOW ( 2200.) IN STORAGE-OUTFLOW TABLE

WARNING --- ROUTED OUTFLOW ( 2244.) IS GREATER THAN MAXIMUM OUTFLOW ( 2200.) IN STORAGE-OUTFLOW TABLE

WARNING --- ROUTED OUTFLOW ( 2229.) IS GREATER THAN MAXIMUM OUTFLOW ( 2200.) IN STORAGE-OUTFLOW TABLE

WARNING --- ROUTED OUTFLOW ( 2201.) IS GREATER THAN MAXIMUM OUTFLOW ( 2200.) IN STORAGE-OUTFLOW TABLE
WARNING EXCESS AT PONDING LESS THAN ZERO FOR PERIOD. EXCESS SET TO ZERO

WARNING --- ROUTED OUTFLOW ( 1568.) IS GREATER THAN MAXIMUM OUTFLOW ( 1566.) IN STORAGE-OUTFLOW TABLE

WARNING --- ROUTED OUTFLOW ( 302.) IS GREATER THAN MAXIMUM OUTFLOW ( 300.) IN STORAGE-OUTFLOW TABLE

WARNING --- ROUTED OUTFLOW ( 304.) IS GREATER THAN MAXIMUM OUTFLOW ( 300.) IN STORAGE-OUTFLOW TABLE

WARNING --- ROUTED OUTFLOW ( 306.) IS GREATER THAN MAXIMUM OUTFLOW ( 300.) IN STORAGE-OUTFLOW TABLE

WARNING --- ROUTED OUTFLOW ( 308.) IS GREATER THAN MAXIMUM OUTFLOW ( 300.) IN STORAGE-OUTFLOW TABLE

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WARNING --- ROUTED OUTFLOW ( 311.) IS GREATER THAN MAXIMUM OUTFLOW ( 300.) IN STORAGE-OUTFLOW TABLE

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WARNING --- ROUTED OUTFLOW (    310.) IS GREATER THAN MAXIMUM OUTFLOW (    300.) IN STORAGE-OUTFLOW TABLE
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WARNING --- ROUTED OUTFLOW (    308.) IS GREATER THAN MAXIMUM OUTFLOW (    300.) IN STORAGE-OUTFLOW TABLE
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WARNING --- ROUTED OUTFLOW (    306.) IS GREATER THAN MAXIMUM OUTFLOW (    300.) IN STORAGE-OUTFLOW TABLE
WARNING --- ROUTED OUTFLOW (    304.) IS GREATER THAN MAXIMUM OUTFLOW (    300.) IN STORAGE-OUTFLOW TABLE
WARNING --- ROUTED OUTFLOW (    303.) IS GREATER THAN MAXIMUM OUTFLOW (    300.) IN STORAGE-OUTFLOW TABLE
WARNING --- ROUTED OUTFLOW (    301.) IS GREATER THAN MAXIMUM OUTFLOW (    300.) IN STORAGE-OUTFLOW TABLE
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WARNING --- ROUTED OUTFLOW (    302.) IS GREATER THAN MAXIMUM OUTFLOW (    300.) IN STORAGE-OUTFLOW TABLE
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WARNING --- ROUTED OUTFLOW (    303.) IS GREATER THAN MAXIMUM OUTFLOW (    300.) IN STORAGE-OUTFLOW TABLE
WARNING --- ROUTED OUTFLOW (    304.) IS GREATER THAN MAXIMUM OUTFLOW (    300.) IN STORAGE-OUTFLOW TABLE
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WARNING --- ROUTED OUTFLOW (    303.) IS GREATER THAN MAXIMUM OUTFLOW (    300.) IN STORAGE-OUTFLOW TABLE
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WARNING --- ROUTED OUTFLOW (    302.) IS GREATER THAN MAXIMUM OUTFLOW (    300.) IN STORAGE-OUTFLOW TABLE
WARNING --- ROUTED OUTFLOW (    301.) IS GREATER THAN MAXIMUM OUTFLOW (    300.) IN STORAGE-OUTFLOW TABLE
WARNING --- ROUTED OUTFLOW (   1663.) IS GREATER THAN MAXIMUM OUTFLOW (   1525.) IN STORAGE-OUTFLOW TABLE
WARNING --- ROUTED OUTFLOW (   1946.) IS GREATER THAN MAXIMUM OUTFLOW (   1525.) IN STORAGE-OUTFLOW TABLE
WARNING --- ROUTED OUTFLOW (   2259.) IS GREATER THAN MAXIMUM OUTFLOW (   1525.) IN STORAGE-OUTFLOW TABLE
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WARNING --- ROUTED OUTFLOW (   2494.) IS GREATER THAN MAXIMUM OUTFLOW (   1525.) IN STORAGE-OUTFLOW TABLE
WARNING --- ROUTED OUTFLOW (   2567.) IS GREATER THAN MAXIMUM OUTFLOW (   1525.) IN STORAGE-OUTFLOW TABLE
WARNING --- ROUTED OUTFLOW (   2475.) IS GREATER THAN MAXIMUM OUTFLOW (   1525.) IN STORAGE-OUTFLOW TABLE
WARNING --- ROUTED OUTFLOW (   2277.) IS GREATER THAN MAXIMUM OUTFLOW (   1525.) IN STORAGE-OUTFLOW TABLE
WARNING --- ROUTED OUTFLOW (   2039.) IS GREATER THAN MAXIMUM OUTFLOW (   1525.) IN STORAGE-OUTFLOW TABLE
WARNING --- ROUTED OUTFLOW (   1818.) IS GREATER THAN MAXIMUM OUTFLOW (   1525.) IN STORAGE-OUTFLOW TABLE
WARNING --- ROUTED OUTFLOW (   1645.) IS GREATER THAN MAXIMUM OUTFLOW (   1525.) IN STORAGE-OUTFLOW TABLE
WARNING --- ROUTED OUTFLOW (   1621.) IS GREATER THAN MAXIMUM OUTFLOW (   1525.) IN STORAGE-OUTFLOW TABLE
WARNING --- ROUTED OUTFLOW (   1886.) IS GREATER THAN MAXIMUM OUTFLOW (   1525.) IN STORAGE-OUTFLOW TABLE
WARNING --- ROUTED OUTFLOW (   2186.) IS GREATER THAN MAXIMUM OUTFLOW (   1525.) IN STORAGE-OUTFLOW TABLE
WARNING --- ROUTED OUTFLOW (   2419.) IS GREATER THAN MAXIMUM OUTFLOW (   1525.) IN STORAGE-OUTFLOW TABLE
WARNING --- ROUTED OUTFLOW (   2500.) IS GREATER THAN MAXIMUM OUTFLOW (   1525.) IN STORAGE-OUTFLOW TABLE
WARNING --- ROUTED OUTFLOW (   2421.) IS GREATER THAN MAXIMUM OUTFLOW (   1525.) IN STORAGE-OUTFLOW TABLE
WARNING --- ROUTED OUTFLOW (   2234.) IS GREATER THAN MAXIMUM OUTFLOW (   1525.) IN STORAGE-OUTFLOW TABLE
WARNING --- ROUTED OUTFLOW (   2002.) IS GREATER THAN MAXIMUM OUTFLOW (   1525.) IN STORAGE-OUTFLOW TABLE
WARNING --- ROUTED OUTFLOW (   1784.) IS GREATER THAN MAXIMUM OUTFLOW (   1525.) IN STORAGE-OUTFLOW TABLE
WARNING --- ROUTED OUTFLOW (   1611.) IS GREATER THAN MAXIMUM OUTFLOW (   1525.) IN STORAGE-OUTFLOW TABLE
WARNING --- ROUTED OUTFLOW (   1645.) IS GREATER THAN MAXIMUM OUTFLOW (   1525.) IN STORAGE-OUTFLOW TABLE
WARNING --- ROUTED OUTFLOW (   1799.) IS GREATER THAN MAXIMUM OUTFLOW (   1525.) IN STORAGE-OUTFLOW TABLE
WARNING --- ROUTED OUTFLOW (   1857.) IS GREATER THAN MAXIMUM OUTFLOW (   1525.) IN STORAGE-OUTFLOW TABLE
WARNING --- ROUTED OUTFLOW (   1827.) IS GREATER THAN MAXIMUM OUTFLOW (   1525.) IN STORAGE-OUTFLOW TABLE
WARNING --- ROUTED OUTFLOW (   1734.) IS GREATER THAN MAXIMUM OUTFLOW (   1525.) IN STORAGE-OUTFLOW TABLE
WARNING --- ROUTED OUTFLOW (   1605.) IS GREATER THAN MAXIMUM OUTFLOW (   1525.) IN STORAGE-OUTFLOW TABLE


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2544 KK       *     SUBDD  *         BASIN
              *            *
              **************

2545 KO            OUTPUT CONTROL VARIABLES
                         IPRNT            3  PRINT CONTROL
                         IPLOT            0  PLOT CONTROL
                         QSCAL           0.  HYDROGRAPH PLOT SCALE
                              THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
                              L=       .5  Lca=        .3   S=   28.3  Kn= .050  LAG=  18.2
                              VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS

                 SUBBASIN RUNOFF DATA

2549 BA            SUBBASIN CHARACTERISTICS
                         TAREA          .13  SUBBASIN AREA

2550 LG            GREEN AND AMPT LOSS RATE
                         STRTL          .25  STARTING LOSS
                           DTH          .25  MOISTURE DEFICIT
                          PSIF         4.70  WETTING FRONT SUCTION
                         XKSAT          .40  HYDRAULIC CONDUCTIVITY
                         RTIMP        30.00  PERCENT IMPERVIOUS AREA

2546 UI            INPUT UNITGRAPH,  11 ORDINATES,  VOLUME = 1.00
                        34.0     115.0     178.0     281.0     193.0     123.0      53.0      30.0      10.0       8.0
                         7.0

                                                                              ***

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

                           HYDROGRAPH AT STATION    SUBDD
                         TRANSPOSITION AREA       .0 SQ MI

    TOTAL RAINFALL =     3.23, TOTAL LOSS =     1.21, TOTAL EXCESS =     2.02

   PEAK FLOW      TIME                           MAXIMUM AVERAGE FLOW
                                         6-HR        24-HR       72-HR    166.58-HR
 +   (CFS)        (HR)
                                 (CFS)
 +     312.       4.17                    29.           7.          2.           1.
                               (INCHES)  2.021       2.024       2.024        2.024
                                (AC-FT)    14.         14.         14.          14.

                                CUMULATIVE AREA =      .13 SQ MI

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

                           HYDROGRAPH AT STATION    SUBDD
                         TRANSPOSITION AREA       .5 SQ MI

    TOTAL RAINFALL =     3.21, TOTAL LOSS =     1.21, TOTAL EXCESS =     2.00
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  PEAK FLOW     TIME                            MAXIMUM AVERAGE FLOW
                                    6-HR         24-HR          72-HR      166.58-HR
+   (CFS)       (HR)
                             (CFS)
+      310.     4.17                  29.            7.            2.            1.
                           (INCHES)  2.003         2.006         2.006         2.006
                            (AC-FT)    14.           14.           14.           14.

                            CUMULATIVE AREA =      .13 SQ MI


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

                             HYDROGRAPH AT STATION    SUBDD
                           TRANSPOSITION AREA      2.8 SQ MI

      TOTAL RAINFALL =    3.15, TOTAL LOSS =    1.40, TOTAL EXCESS =    1.75

  PEAK FLOW     TIME                            MAXIMUM AVERAGE FLOW
                                    6-HR         24-HR          72-HR      166.58-HR
+   (CFS)       (HR)
                             (CFS)
+      178.     4.17                  25.            6.            2.            1.
                           (INCHES)  1.748         1.753         1.753         1.753
                            (AC-FT)    12.           12.           12.           12.

                            CUMULATIVE AREA =      .13 SQ MI


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

                             HYDROGRAPH AT STATION    SUBDD
                           TRANSPOSITION AREA     16.0 SQ MI

      TOTAL RAINFALL =    2.98, TOTAL LOSS =    1.50, TOTAL EXCESS =    1.48

  PEAK FLOW     TIME                            MAXIMUM AVERAGE FLOW
                                    6-HR         24-HR          72-HR      166.58-HR
+   (CFS)       (HR)
                             (CFS)
+      130.     4.17                  21.            5.            2.            1.
                           (INCHES)  1.475         1.479         1.479         1.479
                            (AC-FT)    10.           10.           10.           10.

                            CUMULATIVE AREA =      .13 SQ MI


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

                             HYDROGRAPH AT STATION    SUBDD
                           TRANSPOSITION AREA     90.0 SQ MI

      TOTAL RAINFALL =    2.62, TOTAL LOSS =    1.54, TOTAL EXCESS =    1.08
```

| PEAK FLOW | TIME | | | MAXIMUM AVERAGE FLOW | | |
|---|---|---|---|---|---|---|
| | | | 6-HR | 24-HR | 72-HR | 166.58-HR |
| + (CFS) | (HR) | | | | | |
| | | (CFS) | | | | |
| + 80. | 4.17 | | 15. | 4. | 1. | 1. |
| | | (INCHES) | 1.079 | 1.087 | 1.087 | 1.087 |
| | | (AC-FT) | 8. | 8. | 8. | 8. |

CUMULATIVE AREA = .13 SQ MI

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

HYDROGRAPH AT STATION SUBDD
TRANSPOSITION AREA 500.0 SQ MI

TOTAL RAINFALL = 1.84, TOTAL LOSS = 1.29, TOTAL EXCESS = .55

| PEAK FLOW | TIME | | | MAXIMUM AVERAGE FLOW | | |
|---|---|---|---|---|---|---|
| | | | 6-HR | 24-HR | 72-HR | 166.58-HR |
| + (CFS) | (HR) | | | | | |
| | | (CFS) | | | | |
| + 21. | 4.25 | | 8. | 2. | 1. | 0. |
| | | (INCHES) | .547 | .553 | .553 | .553 |
| | | (AC-FT) | 4. | 4. | 4. | 4. |

CUMULATIVE AREA = .13 SQ MI

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

INTERPOLATED HYDROGRAPH AT SUBDD

| PEAK FLOW | TIME | | | MAXIMUM AVERAGE FLOW | | |
|---|---|---|---|---|---|---|
| | | | 6-HR | 24-HR | 72-HR | 166.58-HR |
| + (CFS) | (HR) | | | | | |
| | | (CFS) | | | | |
| + 311. | 4.17 | | 29. | 7. | 2. | 1. |
| | | (INCHES) | 2.009 | 2.012 | 2.012 | 2.012 |
| | | (AC-FT) | 14. | 14. | 14. | 14. |

CUMULATIVE AREA = .13 SQ MI

1

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

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

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBWD | 595. | 4.50 | 86. | 22. | 7. | .39 |
| | ROUTED TO | | | | | | | |
| + | | RTWDXA | 551. | 4.75 | 86. | 22. | 7. | .39 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBXA | 580. | 4.25 | 71. | 18. | 6. | .25 |
| | 2 COMBINED AT | | | | | | | |
| + | | CPXA1 | 740. | 4.33 | 154. | 39. | 13. | .64 |
| | DIVERSION TO | | | | | | | |
| + | | DIZZ1 | 0. | .00 | 0. | 0. | 0. | .64 |
| | HYDROGRAPH AT | | | | | | | |
| + | | DIXAO | 740. | 4.33 | 154. | 39. | 13. | .64 |
| | ROUTED TO | | | | | | | |
| + | | RTXAWC | 705. | 4.92 | 154. | 39. | 13. | .64 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBWB | 1154. | 4.42 | 184. | 46. | 15. | .67 |
| | ROUTED TO | | | | | | | |
| + | | RTWBWC | 1092. | 4.58 | 183. | 46. | 15. | .67 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBWC | 922. | 4.42 | 138. | 35. | 12. | .49 |
| | 3 COMBINED AT | | | | | | | |
| + | | CPWC | 1938. | 4.67 | 456. | 116. | 39. | 1.79 |
| | DIVERSION TO | | | | | | | |
| + | | DIQE | 0. | .00 | 0. | 0. | 0. | 1.79 |
| | HYDROGRAPH AT | | | | | | | |
| + | | DIWCWA | 1938. | 4.67 | 456. | 116. | 39. | 1.79 |
| | ROUTED TO | | | | | | | |
| + | | RTWCWA | 948. | 6.83 | 412. | 116. | 39. | 1.79 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBWA | 1196. | 4.25 | 141. | 35. | 12. | .49 |
| | 2 COMBINED AT | | | | | | | |
| + | | CPWA1 | 941. | 6.83 | 437. | 150. | 50. | 2.29 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBVD | 1195. | 4.42 | 191. | 48. | 16. | .70 |
| | ROUTED TO | | | | | | | |
| + | | RTVDWA | 1156. | 4.50 | 190. | 48. | 16. | .70 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| + | 2 COMBINED AT | CPWA2 | 1537. | 4.33 | 607. | 195. | 65. | 2.98 |
| + | DIVERSION TO | DIQD | 1078. | 4.33 | 255. | 64. | 21. | 2.98 |
| + | HYDROGRAPH AT | DIWAVC | 459. | 4.33 | 352. | 130. | 43. | 2.98 |
| + | ROUTED TO | RTWAVC | 360. | 12.08 | 321. | 130. | 43. | 2.98 |
| + | HYDROGRAPH AT | SUBVC | 1177. | 4.25 | 140. | 35. | 12. | .49 |
| + | 2 COMBINED AT | CPVC1 | 778. | 4.17 | 321. | 164. | 55. | 3.47 |
| + | HYDROGRAPH AT | SUBVB | 1651. | 4.17 | 203. | 51. | 17. | .72 |
| + | ROUTED TO | RTVBVC | 1545. | 4.25 | 202. | 51. | 17. | .72 |
| + | 2 COMBINED AT | CPVC2 | 1800. | 4.25 | 421. | 212. | 71. | 4.19 |
| + | DIVERSION TO | DIVA | 32. | 4.00 | 20. | 9. | 3. | 4.19 |
| + | HYDROGRAPH AT | DIVCQA | 1768. | 4.25 | 406. | 202. | 67. | 4.19 |
| + | ROUTED TO | RTVCQA | 1685. | 4.42 | 402. | 202. | 67. | 4.19 |
| + | HYDROGRAPH AT | SUBQA | 779. | 4.58 | 124. | 31. | 10. | .49 |
| + | 2 COMBINED AT | CPQA2 | 2197. | 4.42 | 508. | 231. | 77. | 4.68 |
| + | ROUTED TO | RSQA | 2174. | 4.42 | 507. | 231. | 77. | 4.68 |
| + | DIVERSION TO | DIPF | 635. | 4.42 | 192. | 96. | 32. | 4.68 |
| + | HYDROGRAPH AT | DIQAPF | 1539. | 4.42 | 315. | 135. | 45. | 4.68 |
| + | ROUTED TO | RTQAJH | 1413. | 5.00 | 310. | 135. | 45. | 4.68 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| + | HYDROGRAPH AT | SUBQE | 1654. | 4.42 | 274. | 69. | 23. | .91 |
| + | HYDROGRAPH AT | DRQE | 0. | .00 | 0. | 0. | 0. | 1.79 |
| + | ROUTED TO | RTDIQE | 0. | .00 | 0. | 0. | 0. | 1.79 |
| + | 2 COMBINED AT | CPQE | 1654. | 4.42 | 274. | 69. | 23. | .91 |
| + | ROUTED TO | RSQE | 1575. | 4.50 | 254. | 64. | 21. | .91 |
| + | ROUTED TO | RTQEQC | 1479. | 4.67 | 253. | 64. | 21. | .91 |
| + | HYDROGRAPH AT | SUBQD | 600. | 4.25 | 78. | 20. | 7. | .25 |
| + | HYDROGRAPH AT | DRQD | 1078. | 4.33 | 255. | 64. | 21. | 2.98 |
| + | ROUTED TO | RTDIQD | 1044. | 4.50 | 251. | 64. | 21. | 2.98 |
| + | 2 COMBINED AT | CPQD | 1887. | 4.42 | 361. | 94. | 31. | .25 |
| + | ROUTED TO | RSQD | 1831. | 4.50 | 359. | 93. | 31. | .25 |
| + | DIVERSION TO | DIQB | 723. | 4.50 | 100. | 25. | 8. | .25 |
| + | HYDROGRAPH AT | DIQDQB | 1108. | 4.50 | 259. | 68. | 23. | .25 |
| + | ROUTED TO | RTQDQC | 1049. | 4.58 | 257. | 68. | 23. | .25 |
| + | HYDROGRAPH AT | SUBQC | 1160. | 4.33 | 167. | 42. | 14. | .61 |
| + | 3 COMBINED AT | CPQC | 2913. | 4.58 | 643. | 168. | 56. | 1.77 |
| + | DIVERSION TO | DISR | 2330. | 4.58 | 515. | 135. | 45. | 1.77 |
| + | HYDROGRAPH AT | DIQCR | 583. | 4.58 | 129. | 34. | 11. | 1.77 |

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|---|---|---|---|---|---|---|---|---|---|
| | ROUTED TO | | | | | | | | |
| + | | RTQCJI | 385. | 6.25 | 121. | 34. | 11. | 1.77 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBQB | 852. | 4.50 | 141. | 35. | 12. | .50 |
| | HYDROGRAPH AT | | | | | | | |
| + | | DRQB | 723. | 4.50 | 100. | 25. | 8. | .25 |
| | ROUTED TO | | | | | | | |
| + | | RTDIQB | 619. | 5.00 | 99. | 25. | 8. | .25 |
| | 2 COMBINED AT | | | | | | | |
| + | | CPQB | 1061. | 4.92 | 232. | 60. | 20. | .50 |
| | ROUTED TO | | | | | | | |
| + | | RSQB | 942. | 5.00 | 210. | 55. | 18. | .50 |
| | ROUTED TO | | | | | | | |
| + | | RTQBJH | 851. | 5.67 | 203. | 55. | 18. | .50 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBJH | 1096. | 4.33 | 137. | 34. | 11. | .52 |
| | 4 COMBINED AT | | | | | | | |
| + | | CPJH | 1548. | 4.92 | 653. | 239. | 80. | 7.47 |
| | ROUTED TO | | | | | | | |
| + | | RTJHJI | 1391. | 5.67 | 647. | 239. | 80. | 7.47 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBJI | 760. | 4.17 | 82. | 21. | 7. | .31 |
| | 2 COMBINED AT | | | | | | | |
| + | | CPJI | 1399. | 5.67 | 683. | 257. | 86. | 7.78 |
| | DIVERSION TO | | | | | | | |
| + | | DISR1 | 1399. | 5.67 | 683. | 257. | 86. | 7.78 |
| | HYDROGRAPH AT | | | | | | | |
| + | | DISRX | 0. | .00 | 0. | 0. | 0. | 7.78 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBPF | 1297. | 4.17 | 141. | 35. | 12. | .50 |
| | DIVERSION TO | | | | | | | |
| + | | RETPF | 19. | .92 | 6. | 2. | 1. | .50 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETPF | 1297. | 4.17 | 136. | 34. | 11. | .50 |
| | HYDROGRAPH AT | | | | | | | |
| + | | DRPF | 635. | 4.42 | 192. | 96. | 32. | 4.68 |

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|---|---|---|---|---|---|---|---|---|
| | ROUTED TO | | | | | | | |
| + | | RTDIPF | 622. | 4.83 | 189. | 96. | 32. | 4.68 |
| | 2 COMBINED AT | | | | | | | |
| + | | @CPPF | 1569. | 4.17 | 378. | 150. | 50. | 5.19 |
| | ROUTED TO | | | | | | | |
| + | | RSPF | 769. | 4.92 | 241. | 112. | 38. | 5.19 |
| | DIVERSION TO | | | | | | | |
| + | | DIPE | 0. | .00 | 0. | 0. | 0. | 5.19 |
| | HYDROGRAPH AT | | | | | | | |
| + | | DIPFPE | 769. | 4.92 | 241. | 112. | 38. | 5.19 |
| | ROUTED TO | | | | | | | |
| + | | RTPFJF | 749. | 5.17 | 238. | 112. | 38. | 5.19 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBUD | 2034. | 4.08 | 225. | 56. | 19. | .75 |
| | DIVERSION TO | | | | | | | |
| + | | RETB1 | 1140. | 3.92 | 78. | 20. | 7. | .75 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETU | 2034. | 4.08 | 147. | 37. | 12. | .75 |
| | DIVERSION TO | | | | | | | |
| + | | 59SD1D | 102. | 4.00 | 25. | 6. | 2. | .75 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SDDRUD | 1932. | 4.08 | 122. | 30. | 10. | .75 |
| | DIVERSION TO | | | | | | | |
| + | | DIUA | 466. | 4.08 | 29. | 7. | 2. | .75 |
| | HYDROGRAPH AT | | | | | | | |
| + | | DIUDUA | 1466. | 4.08 | 92. | 23. | 8. | .75 |
| | ROUTED TO | | | | | | | |
| + | | RTUDVA | 1145. | 4.25 | 92. | 23. | 8. | .75 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBVA | 1195. | 4.25 | 146. | 37. | 12. | .49 |
| | HYDROGRAPH AT | | | | | | | |
| + | | DRVA | 32. | 4.00 | 20. | 9. | 3. | 4.19 |
| | 3 COMBINED AT | | | | | | | |
| + | | CPVA1 | 2010. | 4.25 | 241. | 67. | 22. | 1.24 |
| | DIVERSION TO | | | | | | | |
| + | | 59SD2D | 59. | 3.42 | 38. | 17. | 6. | 1.24 |

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|---|---|---|---|---|---|---|---|---|
| | HYDROGRAPH AT | | | | | | | |
| + | | SDDRVA | 1951. | 4.25 | 202. | 51. | 17. | 1.24 |
| | DIVERSION TO | | | | | | | |
| + | | DIUC | 783. | 4.25 | 129. | 32. | 11. | 1.24 |
| | HYDROGRAPH AT | | | | | | | |
| + | | DIVAPE | 1168. | 4.25 | 73. | 18. | 6. | 1.24 |
| | ROUTED TO | | | | | | | |
| + | | RTVAPE | 1043. | 4.33 | 73. | 18. | 6. | 1.24 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBPE | 1303. | 4.17 | 138. | 35. | 12. | .50 |
| | HYDROGRAPH AT | | | | | | | |
| + | | DRPE | 0. | .00 | 0. | 0. | 0. | 5.19 |
| | ROUTED TO | | | | | | | |
| + | | RTDIPE | 0. | .00 | 0. | 0. | 0. | 5.19 |
| | 3 COMBINED AT | | | | | | | |
| + | | CPPE | 1559. | 4.33 | 198. | 50. | 17. | 1.75 |
| | ROUTED TO | | | | | | | |
| + | | RSPE | 1478. | 4.33 | 163. | 42. | 14. | 1.75 |
| | DIVERSION TO | | | | | | | |
| + | | DIPD | 3. | 4.33 | 0. | 0. | 0. | 1.75 |
| | HYDROGRAPH AT | | | | | | | |
| + | | DIPEPD | 1476. | 4.33 | 162. | 41. | 14. | 1.75 |
| | ROUTED TO | | | | | | | |
| + | | RTPEJF | 1345. | 4.42 | 162. | 41. | 14. | 1.75 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBJF | 1509. | 4.08 | 144. | 36. | 12. | .50 |
| | 3 COMBINED AT | | | | | | | |
| + | | CPJF | 1306. | 4.42 | 473. | 178. | 61. | 7.44 |
| | ROUTED TO | | | | | | | |
| + | | RTJFJG | 1130. | 4.67 | 455. | 174. | 59. | 7.44 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBJG | 1897. | 4.17 | 254. | 64. | 21. | .90 |
| | 2 COMBINED AT | | | | | | | |
| + | | CPJG | 1904. | 4.25 | 662. | 231. | 79. | 8.34 |
| | 2 COMBINED AT | | | | | | | |
| + | | CPJGSR | 1706. | 4.25 | 625. | 223. | 76. | 16.11 |

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|---|---|---|---|---|---|---|---|---|
| | HYDROGRAPH AT | | | | | | | |
| + | | DRUC | 783. | 4.25 | 129. | 32. | 11. | 1.24 |
| | ROUTED TO | | | | | | | |
| + | | RTVAUC | 500. | 5.33 | 129. | 32. | 11. | 1.24 |
| | ROUTED TO | | | | | | | |
| + | | MCUCUC | 485. | 5.50 | 129. | 32. | 11. | 1.24 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBUC | 927. | 4.42 | 128. | 32. | 11. | .48 |
| | 2 COMBINED AT | | | | | | | |
| + | | @CPUC | 744. | 4.42 | 250. | 64. | 21. | 1.73 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBTB1 | 443. | 4.00 | 37. | 9. | 3. | .14 |
| | DIVERSION TO | | | | | | | |
| + | | RETB1 | 443. | 4.00 | 23. | 6. | 2. | .14 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETB1 | 347. | 4.08 | 15. | 4. | 1. | .14 |
| | DIVERSION TO | | | | | | | |
| + | | 67SD1D | 17. | 4.08 | 3. | 1. | 0. | .14 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SDDTB1 | 330. | 4.08 | 12. | 3. | 1. | .14 |
| | ROUTED TO | | | | | | | |
| + | | RTUAUC | 122. | 4.33 | 12. | 3. | 1. | .14 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBUA | 886. | 4.58 | 144. | 36. | 12. | .56 |
| | HYDROGRAPH AT | | | | | | | |
| + | | DRUA | 466. | 4.08 | 29. | 7. | 2. | .75 |
| | ROUTED TO | | | | | | | |
| + | | RTDIUA | 224. | 4.58 | 29. | 7. | 2. | .75 |
| | 3 COMBINED AT | | | | | | | |
| + | | @CPUA | 1036. | 4.58 | 179. | 45. | 15. | 1.46 |
| | DIVERSION TO | | | | | | | |
| + | | 67SD1D | 96. | 3.83 | 46. | 12. | 4. | 1.46 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SDDRUA | 940. | 4.58 | 133. | 33. | 11. | 1.46 |
| | DIVERSION TO | | | | | | | |
| + | | DITB | 188. | 4.58 | 27. | 7. | 2. | 1.46 |

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|---|---|---|---|---|---|---|---|---|
| + | HYDROGRAPH AT | DIUAUC | 752. | 4.58 | 106. | 27. | 9. | 1.46 |
| + | ROUTED TO | RTUAUC | 719. | 4.67 | 106. | 27. | 9. | 1.46 |
| + | 2 COMBINED AT | ~CPUC2 | 1125. | 4.58 | 354. | 91. | 30. | 3.19 |
| + | DIVERSION TO | DIUB | 1125. | 4.58 | 354. | 91. | 30. | 3.19 |
| + | HYDROGRAPH AT | DIUCPC | 0. | .00 | 0. | 0. | 0. | 3.19 |
| + | ROUTED TO | RTUCPC | 0. | .00 | 0. | 0. | 0. | 3.19 |
| + | HYDROGRAPH AT | SUBPC | 932. | 4.08 | 84. | 21. | 7. | .30 |
| + | 2 COMBINED AT | CPPC | 512. | 4.08 | 80. | 20. | 7. | 3.49 |
| + | ROUTED TO | RSPC | 59. | 4.92 | 19. | 9. | 6. | 3.49 |
| + | ROUTED TO | RTPCNB | 50. | 5.75 | 19. | 9. | 6. | 3.49 |
| + | HYDROGRAPH AT | SUBNB | 1154. | 4.17 | 100. | 25. | 8. | .44 |
| + | DIVERSION TO | RETNB | 1150. | 4.08 | 68. | 17. | 6. | .44 |
| + | HYDROGRAPH AT | RETNB | 930. | 4.25 | 32. | 8. | 3. | .44 |
| + | 2 COMBINED AT | CPNB1 | 338. | 4.42 | 41. | 14. | 8. | 3.93 |
| + | ROUTED TO | RTNBJD | 164. | 4.83 | 41. | 14. | 8. | 3.93 |
| + | HYDROGRAPH AT | SUBPD | 1174. | 4.17 | 111. | 28. | 9. | .44 |
| + | HYDROGRAPH AT | DRPD | 3. | 4.33 | 0. | 0. | 0. | 1.75 |
| + | 2 COMBINED AT | CPPD2 | 1175. | 4.17 | 112. | 28. | 9. | .44 |

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|---|---|---|---|---|---|---|---|---|---|
| | ROUTED TO | | | | | | | | |
| + | | RSPD | 95. | 4.67 | 35. | 11. | 5. | .44 | |
| | ROUTED TO | | | | | | | | |
| + | | RTPDNC | 82. | 5.33 | 34. | 11. | 5. | .44 | |
| | HYDROGRAPH AT | | | | | | | | |
| + | | SUBNC | 714. | 4.08 | 76. | 19. | 6. | .31 | |
| | 2 COMBINED AT | | | | | | | | |
| + | | CPNC | 647. | 4.08 | 99. | 29. | 11. | .75 | |
| | ROUTED TO | | | | | | | | |
| + | | RTNCJE | 470. | 4.75 | 98. | 29. | 11. | .75 | |
| | HYDROGRAPH AT | | | | | | | | |
| + | | SUBJE1 | 732. | 4.08 | 66. | 17. | 6. | .25 | |
| | 2 COMBINED AT | | | | | | | | |
| + | | CPJE1 | 612. | 4.08 | 154. | 44. | 16. | 1.00 | |
| | ROUTED TO | | | | | | | | |
| + | | RTJEJD | 584. | 4.17 | 153. | 44. | 16. | 1.00 | |
| | HYDROGRAPH AT | | | | | | | | |
| + | | SUBJD | 1447. | 4.08 | 125. | 31. | 10. | .51 | |
| | DIVERSION TO | | | | | | | | |
| + | | RETJD | 1215. | 4.08 | 71. | 18. | 6. | .51 | |
| | HYDROGRAPH AT | | | | | | | | |
| + | | RETJD | 1362. | 4.17 | 55. | 14. | 5. | .51 | |
| | 3 COMBINED AT | | | | | | | | |
| + | | CPJD | 845. | 4.33 | 213. | 63. | 25. | 5.44 | |
| | DIVERSION TO | | | | | | | | |
| + | | DIJC2 | 306. | 4.33 | 78. | 23. | 9. | 5.44 | |
| | HYDROGRAPH AT | | | | | | | | |
| + | | DIJDJC | 539. | 4.33 | 135. | 40. | 16. | 5.44 | |
| | ROUTED TO | | | | | | | | |
| + | | RTJDFC | 457. | 4.42 | 135. | 40. | 16. | 5.44 | |
| | HYDROGRAPH AT | | | | | | | | |
| + | | SUBJE2 | 742. | 4.08 | 74. | 18. | 6. | .25 | |
| | DIVERSION TO | | | | | | | | |
| + | | RETJE | 123. | 3.58 | 9. | 2. | 1. | .25 | |
| | HYDROGRAPH AT | | | | | | | | |
| + | | RETJE2 | 742. | 4.08 | 64. | 16. | 5. | .25 | |

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|---|---|---|---|---|---|---|---|---|
| + | ROUTED TO | RTJEFC | 595. | 4.33 | 64. | 16. | 5. | .25 |
| + | HYDROGRAPH AT | SUBFC | 910. | 4.08 | 101. | 25. | 8. | .36 |
| + | 3 COMBINED AT | CPFC | 1176. | 4.33 | 277. | 77. | 29. | 6.05 |
| + | 2 COMBINED AT | CPFCSR | 2448. | 4.33 | 833. | 282. | 98. | 22.16 |
| + | HYDROGRAPH AT | DRUCUB | 1125. | 4.58 | 354. | 91. | 30. | 3.19 |
| + | ROUTED TO | MCUCUB | 1123. | 4.67 | 354. | 91. | 30. | 3.19 |
| + | HYDROGRAPH AT | SUBUB | 299. | 4.33 | 37. | 9. | 3. | .14 |
| + | 2 COMBINED AT | ~@CPUB | 1324. | 4.58 | 390. | 100. | 33. | 2.42 |
| + | HYDROGRAPH AT | SUBSF1 | 155. | 4.50 | 27. | 7. | 2. | .13 |
| + | HYDROGRAPH AT | DRTB | 188. | 4.58 | 27. | 7. | 2. | 1.46 |
| + | ROUTED TO | RTDITB | 182. | 4.75 | 27. | 7. | 2. | 1.46 |
| + | 3 COMBINED AT | CPBA3 | 1574. | 4.58 | 441. | 113. | 38. | 2.55 |
| + | HYDROGRAPH AT | SUBTB2 | 1085. | 4.67 | 221. | 56. | 19. | .75 |
| + | DIVERSION TO | RETTB | 464. | 4.08 | 40. | 10. | 3. | .75 |
| + | HYDROGRAPH AT | RETTB | 1085. | 4.67 | 183. | 46. | 15. | .75 |
| + | DIVERSION TO | DITA | 262. | 4.67 | 45. | 11. | 4. | .75 |
| + | HYDROGRAPH AT | DITBTA | 822. | 4.67 | 138. | 35. | 12. | .75 |
| + | ROUTED TO | RTTBSF | 803. | 4.75 | 138. | 35. | 12. | .75 |

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|---|---|---|---|---|---|---|---|---|
| | HYDROGRAPH AT | | | | | | | |
| + | | SUSFB2 | 354. | 4.08 | 32. | 8. | 3. | .11 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUSF2A | 488. | 4.00 | 45. | 11. | 4. | .14 |
| | DIVERSION TO | | | | | | | |
| + | | RETSF2 | 488. | 4.00 | 45. | 11. | 4. | .14 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RSSF2A | 0. | .00 | 0. | 0. | 0. | .14 |
| | 3 COMBINED AT | | | | | | | |
| + | | CPSF2B | 803. | 4.75 | 168. | 42. | 14. | 1.00 |
| | 2 COMBINED AT | | | | | | | |
| + | | CPBA3 | 2168. | 4.67 | 595. | 152. | 51. | 3.55 |
| | ROUTED TO | | | | | | | |
| + | | BSN71 | 93. | 8.25 | 93. | 91. | 51. | 3.55 |
| | DIVERSION TO | | | | | | | |
| + | | BSN71 | 93. | 8.25 | 93. | 91. | 51. | 3.55 |
| | HYDROGRAPH AT | | | | | | | |
| + | | DBSN71 | 0. | .00 | 0. | 0. | 0. | 3.55 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBPB | 1132. | 4.17 | 121. | 30. | 10. | .41 |
| | DIVERSION TO | | | | | | | |
| + | | RETPB | 1132. | 4.17 | 87. | 22. | 7. | .41 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETPB | 633. | 4.33 | 35. | 9. | 3. | .41 |
| | HYDROGRAPH AT | | | | | | | |
| + | | PB75 | 36. | 4.00 | 3. | 1. | 0. | .01 |
| | HYDROGRAPH AT | | | | | | | |
| + | | PBBU | 61. | 4.08 | 7. | 2. | 1. | .02 |
| | 2 COMBINED AT | | | | | | | |
| + | | CPBSD | 92. | 4.08 | 10. | 2. | 1. | .03 |
| | DIVERSION TO | | | | | | | |
| + | | SD75PB | 23. | 3.67 | 6. | 1. | 0. | .03 |
| | HYDROGRAPH AT | | | | | | | |
| + | | DPBSD1 | 69. | 4.08 | 4. | 1. | 0. | .03 |
| | DIVERSION TO | | | | | | | |
| + | | SDBRPB | 39. | 3.92 | 3. | 1. | 0. | .03 |

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|---|---|---|---|---|---|---|---|---|
| + | HYDROGRAPH AT | DPBSD2 | 30. | 4.08 | 1. | 0. | 0. | .03 |
| + | 2 COMBINED AT | CPPB | 633. | 4.33 | 36. | 9. | 3. | .44 |
| + | DIVERSION TO | DIPA1 | 120. | 4.33 | 7. | 2. | 1. | .44 |
| + | HYDROGRAPH AT | DIPBPA | 513. | 4.33 | 29. | 7. | 2. | .44 |
| + | 2 COMBINED AT | CPPB1 | 296. | 4.42 | 24. | 6. | 2. | 3.99 |
| + | ROUTED TO | RTPBNA | 129. | 5.00 | 24. | 6. | 2. | 3.99 |
| + | HYDROGRAPH AT | SUBNA | 1930. | 4.25 | 267. | 67. | 22. | .94 |
| + | DIVERSION TO | RETNA | 1930. | 4.25 | 181. | 45. | 15. | .94 |
| + | HYDROGRAPH AT | RETNA | 1140. | 4.50 | 87. | 22. | 7. | .94 |
| + | HYDROGRAPH AT | NA75 | 64. | 4.08 | 6. | 2. | 1. | .02 |
| + | HYDROGRAPH AT | NALB | 61. | 4.08 | 7. | 2. | 1. | .02 |
| + | 2 COMBINED AT | CNASD | 124. | 4.08 | 13. | 3. | 1. | .04 |
| + | 3 COMBINED AT | CPNA1 | 1154. | 4.50 | 119. | 30. | 10. | 4.97 |
| + | DIVERSION TO | SD75NA | 40. | 3.83 | 24. | 6. | 2. | 4.97 |
| + | HYDROGRAPH AT | DNASD1 | 731. | 4.50 | 85. | 21. | 7. | 4.97 |
| + | DIVERSION TO | SDLBNA | 38. | 4.58 | 14. | 4. | 1. | 4.97 |
| + | HYDROGRAPH AT | DNASD2 | 705. | 4.50 | 70. | 18. | 6. | 4.97 |
| + | DIVERSION TO | ADMP1 | 705. | 4.50 | 70. | 18. | 6. | 4.97 |

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|---|---|---|---|---|---|---|---|---|
| + | HYDROGRAPH AT | DADMP1 | 0. | .00 | 0. | 0. | 0. | 4.97 |
| + | HYDROGRAPH AT | SUBJC1 | 1104. | 4.17 | 119. | 30. | 10. | .47 |
| + | DIVERSION TO | RETJC1 | 1104. | 4.17 | 72. | 18. | 6. | .47 |
| + | HYDROGRAPH AT | RETJC1 | 933. | 4.33 | 48. | 12. | 4. | .47 |
| + | HYDROGRAPH AT | JC75 | 66. | 4.08 | 7. | 2. | 1. | .02 |
| + | 2 COMBINED AT | CJCSD1 | 957. | 4.33 | 55. | 14. | 5. | .49 |
| + | HYDROGRAPH AT | SUBJC2 | 1098. | 4.17 | 104. | 26. | 9. | .48 |
| + | DIVERSION TO | RETJC2 | 949. | 4.08 | 40. | 10. | 3. | .48 |
| + | HYDROGRAPH AT | RETJC2 | 1093. | 4.25 | 64. | 16. | 5. | .48 |
| + | DIVERSION TO | DETJC2 | 1093. | 4.25 | 33. | 8. | 3. | .48 |
| + | HYDROGRAPH AT | DETJC2 | 666. | 4.33 | 31. | 8. | 3. | .48 |
| + | ROUTED TO | RTJCJC | 408. | 4.58 | 31. | 8. | 3. | .48 |
| + | 2 COMBINED AT | CPJC1A | 949. | 4.33 | 85. | 21. | 7. | .97 |
| + | HYDROGRAPH AT | JCBR | 65. | 4.08 | 7. | 2. | 1. | .02 |
| + | 2 COMBINED AT | CJCSD2 | 924. | 4.33 | 90. | 23. | 8. | .99 |
| + | 2 COMBINED AT | CPJC1B | 457. | 4.50 | 65. | 16. | 5. | 5.96 |
| + | DIVERSION TO | SDOSBR | 41. | 3.83 | 21. | 5. | 2. | 5.96 |
| + | HYDROGRAPH AT | DJC2SD | 416. | 4.50 | 45. | 11. | 4. | 5.96 |

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|---|---|---|---|---|---|---|---|---|
| + | DIVERSION TO | SD75JC | 42. | 4.50 | 10. | 3. | 1. | 5.96 |
| + | HYDROGRAPH AT | DJCSD1 | 374. | 4.50 | 35. | 9. | 3. | 5.96 |
| + | HYDROGRAPH AT | DIJD | 306. | 4.33 | 78. | 23. | 9. | 5.44 |
| + | ROUTED TO | RTJCJC | 235. | 4.75 | 78. | 23. | 9. | 5.44 |
| + | 2 COMBINED AT | CPJC2 | 469. | 4.58 | 103. | 29. | 11. | 8.11 |
| + | DIVERSION TO | DIJB2 | 213. | 4.58 | 47. | 13. | 5. | 8.11 |
| + | HYDROGRAPH AT | DIJCJB | 257. | 4.58 | 56. | 16. | 6. | 8.11 |
| + | ROUTED TO | RTJCFB | 209. | 5.00 | 55. | 16. | 6. | 8.11 |
| + | HYDROGRAPH AT | DRB71 | 93. | 8.25 | 93. | 91. | 51. | 3.55 |
| + | ROUTED TO | RT71PB | 93. | 8.42 | 93. | 91. | 51. | 3.55 |
| + | HYDROGRAPH AT | RSDPB1 | 23. | 3.67 | 6. | 1. | 0. | .03 |
| + | 2 COMBINED AT | CPPBS1 | 95. | 6.00 | 93. | 91. | 51. | 3.99 |
| + | HYDROGRAPH AT | RSDPB2 | 39. | 3.92 | 3. | 1. | 0. | .03 |
| + | 2 COMBINED AT | CPPBS2 | 105. | 4.08 | 94. | 91. | 51. | 3.99 |
| + | ROUTED TO | RTPBNA | 105. | 4.25 | 94. | 91. | 51. | 3.99 |
| + | HYDROGRAPH AT | RSDNA1 | 40. | 3.83 | 24. | 6. | 2. | 4.97 |
| + | 2 COMBINED AT | CPNAS1 | 143. | 4.25 | 114. | 96. | 53. | 4.97 |
| + | HYDROGRAPH AT | RSDNA2 | 38. | 4.58 | 14. | 4. | 1. | 4.97 |

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|---|---|---|---|---|---|---|---|---|
| + | 2 COMBINED AT | CPNAS2 | 173. | 6.17 | 129. | 100. | 54. | 4.97 |
| + | ROUTED TO | RTNAJC | 173. | 6.33 | 129. | 100. | 54. | 4.97 |
| + | HYDROGRAPH AT | RSDJC1 | 42. | 4.50 | 10. | 3. | 1. | 5.96 |
| + | 2 COMBINED AT | CPJCS1 | 213. | 5.33 | 138. | 102. | 54. | 5.96 |
| + | HYDROGRAPH AT | RSDJC3 | 41. | 3.83 | 21. | 5. | 2. | 5.96 |
| + | 2 COMBINED AT | CPJCS3 | 254. | 5.33 | 156. | 107. | 56. | 5.96 |
| + | ROUTED TO | RTJCFB | 254. | 5.50 | 156. | 107. | 56. | 5.96 |
| + | HYDROGRAPH AT | FB75 | 58. | 4.08 | 6. | 1. | 0. | .02 |
| + | 2 COMBINED AT | CPFB | 257. | 4.92 | 160. | 108. | 56. | 5.98 |
| + | 3 COMBINED AT | DUMM | 2444. | 4.33 | 956. | 375. | 146. | 36.25 |
| + | HYDROGRAPH AT | SUBSH | 333. | 4.08 | 30. | 8. | 3. | .10 |
| + | DIVERSION TO | RETSH | 315. | 4.08 | 21. | 5. | 2. | .10 |
| + | HYDROGRAPH AT | RETSH | 261. | 4.17 | 10. | 2. | 1. | .10 |
| + | ROUTED TO | RSSH | 0. | .00 | 0. | 0. | 0. | .10 |
| + | DIVERSION TO | DIRJ2 | 0. | .00 | 0. | 0. | 0. | .10 |
| + | HYDROGRAPH AT | DISHRJ | 0. | .00 | 0. | 0. | 0. | .10 |
| + | ROUTED TO | RTSHSG | 0. | .00 | 0. | 0. | 0. | .10 |
| + | HYDROGRAPH AT | SUBTA | 649. | 4.17 | 68. | 17. | 6. | .24 |

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|---|---|---|---|---|---|---|---|---|
| | DIVERSION TO | | | | | | | |
| + | | RETTA | 649. | 4.17 | 49. | 12. | 4. | .24 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETTA | 365. | 4.33 | 20. | 5. | 2. | .24 |
| | HYDROGRAPH AT | | | | | | | |
| + | | DRTA | 262. | 4.67 | 45. | 11. | 4. | .75 |
| | ROUTED TO | | | | | | | |
| + | | RTDITA | 234. | 5.17 | 45. | 11. | 4. | .75 |
| | 2 COMBINED AT | | | | | | | |
| + | | @CPTA | 366. | 4.33 | 65. | 16. | 5. | 1.13 |
| | ROUTED TO | | | | | | | |
| + | | RTTASG | 230. | 5.33 | 63. | 16. | 5. | 1.13 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBSG | 376. | 4.17 | 40. | 10. | 3. | .14 |
| | DIVERSION TO | | | | | | | |
| + | | RETSG | 376. | 4.17 | 27. | 7. | 2. | .14 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETSG | 268. | 4.25 | 13. | 3. | 1. | .14 |
| | 3 COMBINED AT | | | | | | | |
| + | | CPSG | 235. | 5.33 | 74. | 18. | 6. | 1.37 |
| | ROUTED TO | | | | | | | |
| + | | RSSG | 229. | 5.42 | 48. | 12. | 4. | 1.37 |
| | DIVERSION TO | | | | | | | |
| + | | DIRJ4 | 163. | 5.42 | 29. | 7. | 2. | 1.37 |
| | HYDROGRAPH AT | | | | | | | |
| + | | DISGRJ | 67. | 5.42 | 19. | 5. | 2. | 1.37 |
| | ROUTED TO | | | | | | | |
| + | | RTSGSE | 61. | 5.75 | 19. | 5. | 2. | 1.37 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBSC | 988. | 4.25 | 121. | 30. | 10. | .45 |
| | DIVERSION TO | | | | | | | |
| + | | RETSC | 988. | 4.25 | 92. | 23. | 8. | .45 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETSC | 507. | 4.50 | 30. | 8. | 3. | .45 |
| | DIVERSION TO | | | | | | | |
| + | | DISD | 274. | 4.50 | 16. | 4. | 1. | .45 |

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|---|---|---|---|---|---|---|---|---|
| | HYDROGRAPH AT | | | | | | | |
| + | | DISCSD | 233. | 4.50 | 14. | 3. | 1. | .45 |
| | ROUTED TO | | | | | | | |
| + | | RTSCSE | 155. | 4.58 | 14. | 3. | 1. | .45 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBSE | 425. | 4.00 | 33. | 8. | 3. | .13 |
| | DIVERSION TO | | | | | | | |
| + | | RETSE | 425. | 4.00 | 25. | 6. | 2. | .13 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETSE | 160. | 4.17 | 8. | 2. | 1. | .13 |
| | 3 COMBINED AT | | | | | | | |
| + | | CPSE | 144. | 4.58 | 39. | 10. | 3. | 1.95 |
| | ROUTED TO | | | | | | | |
| + | | RSSE | 12. | 6.58 | 7. | 4. | 3. | 1.95 |
| | DIVERSION TO | | | | | | | |
| + | | DIRJ5 | 12. | 6.58 | 7. | 4. | 3. | 1.95 |
| | HYDROGRAPH AT | | | | | | | |
| + | | DISERJ | 0. | .00 | 0. | 0. | 0. | 1.95 |
| | ROUTED TO | | | | | | | |
| + | | RTSERI | 0. | .00 | 0. | 0. | 0. | 1.95 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBRJ | 413. | 4.17 | 46. | 12. | 4. | .16 |
| | DIVERSION TO | | | | | | | |
| + | | RETRJ | 413. | 4.17 | 33. | 8. | 3. | .16 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETRJ | 282. | 4.33 | 14. | 3. | 1. | .16 |
| | HYDROGRAPH AT | | | | | | | |
| + | | CPRJ2 | 0. | .00 | 0. | 0. | 0. | .10 |
| | ROUTED TO | | | | | | | |
| + | | RTSHRJ | 0. | .00 | 0. | 0. | 0. | .10 |
| | ROUTED TO | | | | | | | |
| + | | RTRJ3 | 0. | .00 | 0. | 0. | 0. | .10 |
| | HYDROGRAPH AT | | | | | | | |
| + | | CPRJ4A | 163. | 5.42 | 29. | 7. | 2. | 1.37 |
| | 2 COMBINED AT | | | | | | | |
| + | | CPRJ4B | 177. | 5.42 | 32. | 8. | 3. | .39 |

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|---|---|---|---|---|---|---|---|---|
| + | ROUTED TO | RTSGRJ | 165. | 5.67 | 32. | 8. | 3. | .39 |
| + | HYDROGRAPH AT | CPRJ5 | 12. | 6.58 | 7. | 4. | 3. | 1.95 |
| + | ROUTED TO | RTSERJ | 10. | 7.33 | 7. | 4. | 3. | 1.95 |
| + | 3 COMBINED AT | @CPRJ6 | 444. | 4.50 | 68. | 20. | 9. | 3.81 |
| + | ROUTED TO | RSRJ | 80. | 6.42 | 34. | 11. | 6. | 3.81 |
| + | DIVERSION TO | DIPA2 | 0. | .00 | 0. | 0. | 0. | 3.81 |
| + | HYDROGRAPH AT | DIRJPA | 80. | 6.42 | 34. | 11. | 6. | 3.81 |
| + | ROUTED TO | RTRJRI | 76. | 6.92 | 34. | 11. | 6. | 3.81 |
| + | ROUTED TO | RTRIRI | 73. | 7.17 | 33. | 11. | 6. | 3.81 |
| + | HYDROGRAPH AT | SUBRI | 742. | 4.08 | 67. | 17. | 6. | .23 |
| + | DIVERSION TO | RETRI | 738. | 4.00 | 47. | 12. | 4. | .23 |
| + | HYDROGRAPH AT | RETRI | 523. | 4.17 | 20. | 5. | 2. | .23 |
| + | HYDROGRAPH AT | SUBSB | 536. | 4.08 | 50. | 12. | 4. | .17 |
| + | DIVERSION TO | RETSB | 536. | 4.08 | 34. | 8. | 3. | .17 |
| + | HYDROGRAPH AT | RETSB | 393. | 4.17 | 16. | 4. | 1. | .17 |
| + | ROUTED TO | RSSB | 74. | 4.42 | 12. | 3. | 1. | .17 |
| + | HYDROGRAPH AT | SUBSD | 487. | 4.08 | 46. | 12. | 4. | .17 |
| + | DIVERSION TO | RETSD | 487. | 4.08 | 34. | 8. | 3. | .17 |

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|---|---|---|---|---|---|---|---|
| + | HYDROGRAPH AT RETSD | 309. | 4.25 | 13. | 3. | 1. | .17 |
| + | HYDROGRAPH AT DRSD | 274. | 4.50 | 16. | 4. | 1. | .45 |
| + | 3 COMBINED AT @CPSD | 340. | 4.50 | 38. | 9. | 3. | .79 |
| + | ROUTED TO RSSD | 342. | 4.50 | 38. | 9. | 3. | .79 |
| + | ROUTED TO RTSDRI | 239. | 4.75 | 38. | 9. | 3. | .79 |
| + | 4 COMBINED AT ~@CPRI | 837. | 4.33 | 163. | 46. | 17. | 4.38 |
| + | ROUTED TO MCRIRH | 164. | 5.17 | 71. | 22. | 9. | 4.38 |
| + | HYDROGRAPH AT SUBPA | 1148. | 4.17 | 136. | 34. | 11. | .48 |
| + | DIVERSION TO RETPA | 1148. | 4.17 | 96. | 24. | 8. | .48 |
| + | HYDROGRAPH AT RETPA | 690. | 4.42 | 40. | 10. | 3. | .48 |
| + | HYDROGRAPH AT DRPA2 | 0. | .00 | 0. | 0. | 0. | 3.81 |
| + | ROUTED TO RTRJPA | 0. | .00 | 0. | 0. | 0. | 3.81 |
| + | 2 COMBINED AT CPPA | 690. | 4.42 | 40. | 10. | 3. | .48 |
| + | DIVERSION TO DIOE | 124. | 4.42 | 7. | 2. | 1. | .48 |
| + | HYDROGRAPH AT DIPAOE | 566. | 4.42 | 33. | 8. | 3. | .48 |
| + | ROUTED TO RTPAMH | 290. | 4.67 | 33. | 8. | 3. | .48 |
| + | HYDROGRAPH AT SUBMH | 601. | 4.17 | 62. | 16. | 5. | .24 |
| + | DIVERSION TO RETMH | 601. | 4.17 | 40. | 10. | 3. | .24 |

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|---|---|---|---|---|---|---|---|---|---|
| | HYDROGRAPH AT | | | | | | | | |
| + | | RETMH | 435. | 4.33 | 22. | 6. | 2. | .24 |
| | 2 COMBINED AT | | | | | | | |
| + | | CPMH | 370. | 4.33 | 54. | 13. | 4. | .72 |
| | ROUTED TO | | | | | | | |
| + | | RTMHMD | 300. | 4.75 | 54. | 13. | 4. | .72 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBMD | 423. | 4.50 | 68. | 17. | 6. | .25 |
| | DIVERSION TO | | | | | | | |
| + | | RETMD | 423. | 4.50 | 43. | 11. | 4. | .25 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETMD | 329. | 4.67 | 26. | 6. | 2. | .25 |
| | 2 COMBINED AT | | | | | | | |
| + | | CPMD | 534. | 4.83 | 77. | 19. | 6. | .97 |
| | DIVERSION TO | | | | | | | |
| + | | DIJB1 | 109. | 4.83 | 16. | 4. | 1. | .97 |
| | HYDROGRAPH AT | | | | | | | |
| + | | DIMDJB | 425. | 4.83 | 61. | 15. | 5. | .97 |
| | DIVERSION TO | | | | | | | |
| + | | DIMFX | 425. | 4.83 | 61. | 15. | 5. | .97 |
| | HYDROGRAPH AT | | | | | | | |
| + | | DIMDMF | 0. | .00 | 0. | 0. | 0. | .97 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBMI | 1098. | 4.17 | 109. | 27. | 9. | .41 |
| | DIVERSION TO | | | | | | | |
| + | | RETMI | 1078. | 4.08 | 71. | 18. | 6. | .41 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETMI | 930. | 4.25 | 38. | 10. | 3. | .41 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBMG | 257. | 4.08 | 22. | 5. | 2. | .08 |
| | DIVERSION TO | | | | | | | |
| + | | RETMG | 240. | 4.00 | 15. | 4. | 1. | .08 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETMG | 203. | 4.17 | 7. | 2. | 1. | .08 |
| | 2 COMBINED AT | | | | | | | |
| + | | CPMG | 1038. | 4.25 | 46. | 11. | 4. | .49 |

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|---|---|---|---|---|---|---|---|---|
| + | ROUTED TO | RTMGJB | 374. | 4.92 | 46. | 11. | 4. | .49 |
| + | HYDROGRAPH AT | SUBJB1 | 703. | 4.50 | 105. | 26. | 9. | .49 |
| + | DIVERSION TO | RETJB1 | 315. | 4.08 | 21. | 5. | 2. | .49 |
| + | HYDROGRAPH AT | RETJB1 | 703. | 4.50 | 84. | 21. | 7. | .49 |
| + | HYDROGRAPH AT | DRJB | 109. | 4.83 | 16. | 4. | 1. | .97 |
| + | ROUTED TO | RDIJB1 | 84. | 5.17 | 16. | 4. | 1. | .97 |
| + | HYDROGRAPH AT | ADMP1 | 705. | 4.50 | 70. | 18. | 6. | 4.97 |
| + | ROUTED TO | MCJCJB | 290. | 5.67 | 70. | 18. | 6. | 4.97 |
| + | 5 COMBINED AT | ~CPJB1 | 707. | 5.33 | 205. | 51. | 17. | 9.37 |
| + | ROUTED TO | RRJB1 | 345. | 5.50 | 156. | 41. | 14. | 9.37 |
| + | DIVERSION TO | DIED | 345. | 5.50 | 156. | 41. | 14. | 9.37 |
| + | HYDROGRAPH AT | DIED | 0. | .00 | 0. | 0. | 0. | 9.37 |
| + | HYDROGRAPH AT | SUBOE | 1120. | 4.17 | 128. | 32. | 11. | .47 |
| + | DIVERSION TO | RETOE | 1120. | 4.17 | 95. | 24. | 8. | .47 |
| + | HYDROGRAPH AT | RETOE | 618. | 4.42 | 33. | 8. | 3. | .47 |
| + | HYDROGRAPH AT | CPOE1 | 124. | 4.42 | 7. | 2. | 1. | .48 |
| + | ROUTED TO | RTDIOE | 29. | 5.67 | 7. | 2. | 1. | .48 |
| + | 2 COMBINED AT | @CPOE | 618. | 4.42 | 41. | 10. | 3. | .47 |

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|---|---|---|---|---|---|---|---|---|---|
| | DIVERSION TO | | | | | | | | |
| + | | DIOD | 101. | 4.42 | 7. | 2. | 1. | .47 | |
| | HYDROGRAPH AT | | | | | | | | |
| + | | DIOEOD | 517. | 4.42 | 34. | 8. | 3. | .47 | |
| | ROUTED TO | | | | | | | | |
| + | | RTOEMF | 175. | 4.92 | 34. | 8. | 3. | .47 | |
| | HYDROGRAPH AT | | | | | | | | |
| + | | SUBMF | 1379. | 4.58 | 245. | 62. | 21. | .97 | |
| | DIVERSION TO | | | | | | | | |
| + | | RETMF | 1379. | 4.58 | 162. | 40. | 13. | .97 | |
| | HYDROGRAPH AT | | | | | | | | |
| + | | RETMF | 869. | 4.83 | 84. | 21. | 7. | .97 | |
| | HYDROGRAPH AT | | | | | | | | |
| + | | CPMF | 425. | 4.83 | 61. | 15. | 5. | .97 | |
| | ROUTED TO | | | | | | | | |
| + | | RTMDMF | 308. | 5.33 | 61. | 15. | 5. | .97 | |
| | 3 COMBINED AT | | | | | | | | |
| + | | CPMF1 | 955. | 4.92 | 170. | 43. | 14. | 1.44 | |
| | DIVERSION TO | | | | | | | | |
| + | | DIEB | 441. | 4.92 | 79. | 20. | 7. | 1.44 | |
| | HYDROGRAPH AT | | | | | | | | |
| + | | DIMFEB | 514. | 4.92 | 91. | 23. | 8. | 1.44 | |
| | ROUTED TO | | | | | | | | |
| + | | RTMFMC | 393. | 5.50 | 90. | 23. | 8. | 1.44 | |
| | HYDROGRAPH AT | | | | | | | | |
| + | | SUBOD | 1279. | 4.17 | 150. | 38. | 13. | .51 | |
| | DIVERSION TO | | | | | | | | |
| + | | RETOD | 1279. | 4.17 | 128. | 32. | 11. | .51 | |
| | HYDROGRAPH AT | | | | | | | | |
| + | | RETOD | 353. | 4.50 | 22. | 6. | 2. | .51 | |
| | HYDROGRAPH AT | | | | | | | | |
| + | | DROD | 101. | 4.42 | 7. | 2. | 1. | .47 | |
| | ROUTED TO | | | | | | | | |
| + | | RTDIOD | 29. | 5.08 | 7. | 2. | 1. | .47 | |
| | 2 COMBINED AT | | | | | | | | |
| + | | CPOD | 355. | 4.50 | 29. | 7. | 2. | .51 | |

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|---|---|---|---|---|---|---|---|---|
| + | DIVERSION TO | DIOC | 64. | 4.50 | 5. | 1. | 0. | .51 |
| + | HYDROGRAPH AT | DIODOC | 291. | 4.50 | 24. | 6. | 2. | .51 |
| + | ROUTED TO | RTODMC | 104. | 5.17 | 24. | 6. | 2. | .51 |
| + | HYDROGRAPH AT | SUBMC | 1825. | 4.33 | 291. | 73. | 24. | 1.00 |
| + | DIVERSION TO | RETMC | 1825. | 4.33 | 192. | 48. | 16. | 1.00 |
| + | HYDROGRAPH AT | RETMC | 1234. | 4.58 | 100. | 25. | 8. | 1.00 |
| + | 3 COMBINED AT | CPMC1 | 1043. | 4.58 | 196. | 49. | 16. | 2.95 |
| + | DIVERSION TO | DIMB | 398. | 4.58 | 75. | 19. | 6. | 2.95 |
| + | HYDROGRAPH AT | DIMCMB | 645. | 4.58 | 121. | 30. | 10. | 2.95 |
| + | ROUTED TO | RTMCIE | 478. | 4.83 | 120. | 30. | 10. | 2.95 |
| + | DIVERSION TO | MCIE | 478. | 4.83 | 120. | 30. | 10. | 2.95 |
| + | HYDROGRAPH AT | DIMCIE | 0. | .00 | 0. | 0. | 0. | 2.95 |
| + | HYDROGRAPH AT | DREB | 441. | 4.92 | 79. | 20. | 7. | 1.44 |
| + | HYDROGRAPH AT | SUBEB | 308. | 4.25 | 32. | 8. | 3. | .14 |
| + | DIVERSION TO | RETEB | 308. | 4.25 | 23. | 6. | 2. | .14 |
| + | HYDROGRAPH AT | RETEB | 188. | 4.42 | 9. | 2. | 1. | .14 |
| + | 2 COMBINED AT | CPEB | 646. | 4.75 | 97. | 24. | 8. | .14 |
| + | HYDROGRAPH AT | RDIED | 345. | 5.50 | 156. | 41. | 14. | 9.37 |

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|---|---|---|---|---|---|---|---|---|
| | ROUTED TO | | | | | | | |
| + | | RJBED1 | 323. | 5.83 | 155. | 41. | 14. | 9.37 |
| | ROUTED TO | | | | | | | |
| + | | RJBED2 | 291. | 6.92 | 152. | 41. | 14. | 9.37 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBED1 | 536. | 4.58 | 84. | 21. | 7. | .38 |
| | DIVERSION TO | | | | | | | |
| + | | RETED1 | 487. | 4.42 | 40. | 10. | 3. | .38 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETED1 | 536. | 4.58 | 44. | 11. | 4. | .38 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBED2 | 218. | 4.25 | 22. | 6. | 2. | .11 |
| | DIVERSION TO | | | | | | | |
| + | | RETED2 | 218. | 4.25 | 15. | 4. | 1. | .11 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETED2 | 159. | 4.42 | 7. | 2. | 1. | .11 |
| | 2 COMBINED AT | | | | | | | |
| + | | CPED1 | 611. | 4.58 | 51. | 13. | 4. | .50 |
| | 2 COMBINED AT | | | | | | | |
| + | | ~CPED1 | 894. | 5.83 | 270. | 73. | 24. | .50 |
| | 2 COMBINED AT | | | | | | | |
| + | | ~CPED2 | 981. | 4.75 | 357. | 95. | 32. | .63 |
| | ROUTED TO | | | | | | | |
| + | | RRED | 876. | 5.92 | 352. | 95. | 32. | .63 |
| | ROUTED TO | | | | | | | |
| + | | RT95 | 767. | 6.17 | 347. | 95. | 32. | .63 |
| | ROUTED TO | | | | | | | |
| + | | 95BASI | 297. | 7.92 | 258. | 95. | 32. | .63 |
| | ROUTED TO | | | | | | | |
| + | | RT99 | 297. | 8.00 | 258. | 95. | 32. | .63 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBID1 | 370. | 4.42 | 52. | 13. | 4. | .20 |
| | DIVERSION TO | | | | | | | |
| + | | RETID1 | 370. | 4.42 | 34. | 9. | 3. | .20 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETID1 | 297. | 4.58 | 19. | 5. | 2. | .20 |

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|---|---|---|---|---|---|---|---|---|
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBID2 | 560. | 4.42 | 77. | 19. | 6. | .36 |
| | DIVERSION TO | | | | | | | |
| + | | RETID2 | 560. | 4.42 | 60. | 15. | 5. | .36 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETID2 | 286. | 4.75 | 17. | 4. | 1. | .36 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBIE | 574. | 4.42 | 117. | 29. | 10. | .30 |
| | DIVERSION TO | | | | | | | |
| + | | RETIE | 574. | 4.42 | 50. | 13. | 4. | .30 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETIE | 470. | 4.58 | 67. | 17. | 6. | .30 |
| | HYDROGRAPH AT | | | | | | | |
| + | | DRMCIE | 478. | 4.83 | 120. | 30. | 10. | 2.95 |
| | 4 COMBINED AT | | | | | | | |
| + | | ~CPID2 | 1308. | 4.75 | 230. | 58. | 19. | .87 |
| | ROUTED TO | | | | | | | |
| + | | RRID1 | 1163. | 4.83 | 230. | 58. | 19. | .87 |
| | 2 COMBINED AT | | | | | | | |
| + | | CPID3 | 1038. | 4.83 | 413. | 141. | 47. | 1.50 |
| | ROUTED TO | | | | | | | |
| + | | RT107 | 870. | 5.08 | 405. | 141. | 47. | 1.50 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBIB | 826. | 4.42 | 121. | 30. | 10. | .48 |
| | DIVERSION TO | | | | | | | |
| + | | RETIB | 327. | 4.00 | 21. | 5. | 2. | .48 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETIB | 826. | 4.42 | 101. | 25. | 8. | .48 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBIC | 630. | 4.58 | 100. | 25. | 8. | .46 |
| | DIVERSION TO | | | | | | | |
| + | | RETIC | 291. | 4.17 | 20. | 5. | 2. | .46 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETIC | 630. | 4.58 | 80. | 20. | 7. | .46 |
| | 2 COMBINED AT | | | | | | | |
| + | | CPIC | 1296. | 4.50 | 174. | 44. | 15. | .94 |

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|---|---|---|---|---|---|---|---|---|
| + | HYDROGRAPH AT | SUBOC | 847. | 4.17 | 93. | 23. | 8. | .31 |
| + | DIVERSION TO | RETOC | 847. | 4.17 | 63. | 16. | 5. | .31 |
| + | HYDROGRAPH AT | RETOC | 546. | 4.25 | 30. | 8. | 3. | .31 |
| + | HYDROGRAPH AT | DROC | 64. | 4.50 | 5. | 1. | 0. | .51 |
| + | ROUTED TO | RTDIOC | 18. | 5.92 | 5. | 1. | 0. | .51 |
| + | 2 COMBINED AT | CPOC | 546. | 4.25 | 36. | 9. | 3. | .31 |
| + | ROUTED TO | RTOCMB | 231. | 4.67 | 36. | 9. | 3. | .31 |
| + | HYDROGRAPH AT | SUBMB | 1673. | 4.42 | 273. | 68. | 23. | 1.00 |
| + | DIVERSION TO | RETMB | 1673. | 4.42 | 178. | 45. | 15. | 1.00 |
| + | HYDROGRAPH AT | RETMB | 1163. | 4.67 | 96. | 24. | 8. | 1.00 |
| + | HYDROGRAPH AT | DRMB | 398. | 4.58 | 75. | 19. | 6. | 2.95 |
| + | ROUTED TO | RTDIMB | 217. | 5.17 | 74. | 19. | 6. | 2.95 |
| + | 3 COMBINED AT | @CPMB | 1155. | 4.67 | 195. | 49. | 16. | 5.24 |
| + | ROUTED TO | RTMBIB | 612. | 5.17 | 172. | 44. | 15. | 5.24 |
| + | 2 COMBINED AT | CPIBO | 1316. | 4.92 | 365. | 93. | 31. | 6.18 |
| + | 3 COMBINED AT | @CPIB2 | 1345. | 5.25 | 537. | 174. | 58. | 10.63 |
| + | ROUTED TO | RRIB | 1318. | 5.33 | 536. | 174. | 58. | 10.63 |
| + | ROUTED TO | MCIBIA | 1256. | 5.58 | 525. | 174. | 58. | 10.63 |

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|---|---|---|---|---|---|---|---|---|
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBME | 521. | 4.33 | 60. | 15. | 5. | .33 |
| | DIVERSION TO | | | | | | | |
| + | | RETME | 521. | 4.33 | 46. | 11. | 4. | .33 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETME | 257. | 4.58 | 14. | 4. | 1. | .33 |
| | ROUTED TO | | | | | | | |
| + | | RTMEIA | 118. | 5.00 | 14. | 4. | 1. | .33 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBIA | 594. | 4.25 | 67. | 17. | 6. | .31 |
| | DIVERSION TO | | | | | | | |
| + | | RETIA | 110. | 3.83 | 7. | 2. | 1. | .31 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETIA | 594. | 4.25 | 59. | 15. | 5. | .31 |
| | 3 COMBINED AT | | | | | | | |
| + | | ~CPIA | 1253. | 5.58 | 537. | 183. | 61. | 11.26 |
| | ROUTED TO | | | | | | | |
| + | | MCIAHB | 1200. | 5.92 | 533. | 183. | 61. | 11.26 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBHB | 644. | 4.25 | 69. | 17. | 6. | .34 |
| | DIVERSION TO | | | | | | | |
| + | | RETHB | 119. | 3.92 | 9. | 2. | 1. | .34 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETHB | 644. | 4.25 | 60. | 15. | 5. | .34 |
| | 2 COMBINED AT | | | | | | | |
| + | | CPHB1 | 1201. | 5.92 | 543. | 192. | 64. | 11.61 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBDA | 565. | 4.42 | 72. | 18. | 6. | .33 |
| | DIVERSION TO | | | | | | | |
| + | | RETDA | 216. | 4.00 | 9. | 2. | 1. | .33 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETDA | 565. | 4.42 | 63. | 16. | 5. | .33 |
| | 2 COMBINED AT | | | | | | | |
| + | | ~CPDA | 1202. | 5.92 | 587. | 203. | 68. | 11.94 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBLD | 489. | 4.33 | 60. | 15. | 5. | .28 |

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|---|---|---|---|---|---|---|---|---|
| + | DIVERSION TO | RETLD | 489. | 4.33 | 42. | 10. | 3. | .28 |
| + | HYDROGRAPH AT | RETLD | 287. | 4.58 | 18. | 4. | 1. | .28 |
| + | ROUTED TO | RTLDMA | 163. | 4.83 | 18. | 4. | 1. | .28 |
| + | HYDROGRAPH AT | SUBMA | 430. | 4.25 | 42. | 11. | 4. | .25 |
| + | DIVERSION TO | RETMA | 430. | 4.25 | 33. | 8. | 3. | .25 |
| + | HYDROGRAPH AT | RETMA | 220. | 4.50 | 10. | 2. | 1. | .25 |
| + | 2 COMBINED AT | CPMA | 215. | 4.50 | 27. | 7. | 2. | .52 |
| + | ROUTED TO | RTMAHB | 165. | 5.08 | 27. | 7. | 2. | .52 |
| + | 2 COMBINED AT | CPHB2 | 1205. | 5.92 | 588. | 203. | 68. | 12.46 |
| + | HYDROGRAPH AT | SUBLB | 412. | 4.33 | 43. | 11. | 4. | .25 |
| + | DIVERSION TO | RETLB | 412. | 4.33 | 33. | 8. | 3. | .25 |
| + | HYDROGRAPH AT | RETLB | 189. | 4.58 | 10. | 3. | 1. | .25 |
| + | ROUTED TO | RTLBHA | 51. | 5.83 | 10. | 3. | 1. | .25 |
| + | HYDROGRAPH AT | SUBHA | 298. | 4.25 | 32. | 8. | 3. | .15 |
| + | DIVERSION TO | RETHA | 106. | 3.92 | 6. | 2. | 1. | .15 |
| + | HYDROGRAPH AT | RETHA | 298. | 4.25 | 25. | 6. | 2. | .15 |
| + | 3 COMBINED AT | CPHA | 1195. | 5.92 | 598. | 206. | 69. | 12.86 |
| + | ROUTED TO | MCHACB | 1116. | 6.50 | 572. | 204. | 69. | 12.86 |

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|---|---|---|---|---|---|---|---|---|
| + | HYDROGRAPH AT | SUBEA | 505. | 4.58 | 80. | 20. | 7. | .36 |
| + | DIVERSION TO | RETEA | 505. | 4.58 | 80. | 20. | 7. | .36 |
| + | HYDROGRAPH AT | RETEA | 0. | 6.58 | 0. | 0. | 0. | .36 |
| + | ROUTED TO | RTEADC | 0. | 8.17 | 0. | 0. | 0. | .36 |
| + | HYDROGRAPH AT | SUBDC | 1083. | 4.58 | 180. | 45. | 15. | .83 |
| + | DIVERSION TO | RETDC | 593. | 4.58 | 95. | 24. | 8. | .83 |
| + | HYDROGRAPH AT | RETDC | 489. | 4.58 | 85. | 21. | 7. | .83 |
| + | DIVERSION TO | EXRET | 477. | 4.50 | 42. | 10. | 3. | .83 |
| + | HYDROGRAPH AT | EXRET | 425. | 4.67 | 43. | 11. | 4. | .83 |
| + | HYDROGRAPH AT | SUBDD | 311. | 4.17 | 29. | 7. | 2. | .13 |
| + | DIVERSION TO | RETDD | 311. | 4.17 | 28. | 7. | 2. | .13 |
| + | HYDROGRAPH AT | RETDD | 4. | 5.58 | 1. | 0. | 0. | .13 |
| + | ROUTED TO | RTDDDC | 3. | 5.83 | 1. | 0. | 0. | .13 |
| + | 3 COMBINED AT | ~CPDC | 419. | 4.67 | 43. | 11. | 4. | 1.32 |
| + | ROUTED TO | RTDCCC | 246. | 5.25 | 40. | 10. | 3. | 1.32 |
| + | HYDROGRAPH AT | SUBCC | 1345. | 4.50 | 212. | 53. | 18. | .98 |
| + | DIVERSION TO | RETCC | 962. | 4.50 | 143. | 36. | 12. | .98 |
| + | HYDROGRAPH AT | RETCC | 383. | 4.50 | 69. | 17. | 6. | .98 |

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|---|---|---|---|---|---|---|---|---|---|
| | 2 COMBINED AT | | | | | | | | |
| + | | ~CPCC | 324. | 4.50 | 93. | 24. | 8. | 2.30 | |
| | ROUTED TO | | | | | | | | |
| + | | RTCCSC | 293. | 4.83 | 93. | 24. | 8. | 2.30 | |
| | ROUTED TO | | | | | | | | |
| + | | RTCCSC | 263. | 5.67 | 92. | 24. | 8. | 2.30 | |
| | HYDROGRAPH AT | | | | | | | | |
| + | | SUBCB | 1204. | 4.42 | 178. | 45. | 15. | .74 | |
| | DIVERSION TO | | | | | | | | |
| + | | RETCB | 582. | 4.08 | 32. | 8. | 3. | .74 | |
| | HYDROGRAPH AT | | | | | | | | |
| + | | RETCB | 1204. | 4.42 | 146. | 37. | 12. | .74 | |
| | 3 COMBINED AT | | | | | | | | |
| + | | ~CPCB1 | 1183. | 6.50 | 697. | 243. | 82. | 15.90 | |
| | HYDROGRAPH AT | | | | | | | | |
| + | | SUBGD1 | 1022. | 4.42 | 136. | 34. | 11. | .63 | |
| | DIVERSION TO | | | | | | | | |
| + | | RETGD1 | 451. | 4.00 | 27. | 7. | 2. | .63 | |
| | HYDROGRAPH AT | | | | | | | | |
| + | | RETGD1 | 1022. | 4.42 | 110. | 27. | 9. | .63 | |
| | HYDROGRAPH AT | | | | | | | | |
| + | | SUBGD2 | 1299. | 4.50 | 195. | 49. | 16. | .21 | |
| | DIVERSION TO | | | | | | | | |
| + | | RETGD2 | 527. | 4.00 | 32. | 8. | 3. | .21 | |
| | HYDROGRAPH AT | | | | | | | | |
| + | | RETGD2 | 1299. | 4.50 | 164. | 41. | 14. | .21 | |
| | 2 COMBINED AT | | | | | | | | |
| + | | CPGD | 2156. | 4.42 | 268. | 67. | 22. | .84 | |
| | HYDROGRAPH AT | | | | | | | | |
| + | | SUBKC | 492. | 4.25 | 54. | 14. | 5. | .26 | |
| | DIVERSION TO | | | | | | | | |
| + | | RETKC | 492. | 4.25 | 44. | 11. | 4. | .26 | |
| | HYDROGRAPH AT | | | | | | | | |
| + | | RETKC | 183. | 4.58 | 10. | 3. | 1. | .26 | |
| | ROUTED TO | | | | | | | | |
| + | | RTKCGD | 60. | 5.08 | 10. | 3. | 1. | .26 | |

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|---|---|---|---|---|---|---|---|---|
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBGC | 432. | 4.25 | 43. | 11. | 4. | .22 |
| | DIVERSION TO | | | | | | | |
| + | | RETGC | 234. | 4.00 | 10. | 3. | 1. | .22 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETGC | 432. | 4.25 | 33. | 8. | 3. | .22 |
| | ROUTED TO | | | | | | | |
| + | | RTGCGD | 423. | 4.25 | 33. | 8. | 3. | .22 |
| | 3 COMBINED AT | | | | | | | |
| + | | CPGD1 | 2260. | 4.42 | 297. | 74. | 25. | 1.32 |
| | ROUTED TO | | | | | | | |
| + | | RTGDCB | 2252. | 4.50 | 297. | 74. | 25. | 1.32 |
| | 2 COMBINED AT | | | | | | | |
| + | | ~CPCB2 | 2214. | 4.50 | 914. | 295. | 99. | 17.22 |
| | ROUTED TO | | | | | | | |
| + | | MCCBCA | 2099. | 4.92 | 896. | 295. | 99. | 17.22 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBCA1 | 238. | 4.50 | 35. | 9. | 3. | .14 |
| | DIVERSION TO | | | | | | | |
| + | | RETCA1 | 86. | 4.00 | 5. | 1. | 0. | .14 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETCA1 | 238. | 4.50 | 31. | 8. | 3. | .14 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBCA2 | 1249. | 4.50 | 186. | 47. | 16. | .84 |
| | DIVERSION TO | | | | | | | |
| + | | RETCA2 | 621. | 4.08 | 36. | 9. | 3. | .84 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETCA2 | 1249. | 4.50 | 150. | 37. | 12. | .84 |
| | 3 COMBINED AT | | | | | | | |
| + | | ~CPCA1 | 2710. | 4.83 | 1005. | 325. | 110. | 18.20 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBGB | 379. | 4.33 | 41. | 10. | 3. | .22 |
| | DIVERSION TO | | | | | | | |
| + | | RETGB | 308. | 4.17 | 17. | 4. | 1. | .22 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETGB | 379. | 4.33 | 24. | 6. | 2. | .22 |

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|---|---|---|---|---|---|---|---|---|
| | ROUTED TO | | | | | | | |
| + | | RTGBCA | 111. | 5.25 | 24. | 6. | 2. | .22 |
| | 2 COMBINED AT | | | | | | | |
| + | | ~CPCA2 | 2700. | 4.83 | 1011. | 327. | 110. | 18.42 |
| | DIVERSION TO | | | | | | | |
| + | | B-DRCC | 2666. | 4.83 | 978. | 295. | 98. | 18.42 |
| | HYDROGRAPH AT | | | | | | | |
| + | | P-DRCC | 34. | 22.42 | 33. | 32. | 12. | 18.42 |
| | ROUTED TO | | | | | | | |
| + | | MCCABC | 33. | 5.17 | 33. | 32. | 12. | 18.42 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBBC1 | 494. | 4.00 | 40. | 10. | 3. | .14 |
| | DIVERSION TO | | | | | | | |
| + | | RETBC1 | 50. | 3.50 | 6. | 1. | 0. | .14 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETBC1 | 494. | 4.00 | 34. | 9. | 3. | .14 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBBC2 | 931. | 4.50 | 136. | 34. | 11. | .49 |
| | DIVERSION TO | | | | | | | |
| + | | RETBC2 | 316. | 4.00 | 21. | 5. | 2. | .49 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETBC2 | 931. | 4.50 | 115. | 29. | 10. | .49 |
| | 3 COMBINED AT | | | | | | | |
| + | | ~CPBC | 553. | 4.50 | 131. | 57. | 21. | 19.05 |
| | 2 COMBINED AT | | | | | | | |
| + | | CPAFBC | 507. | 4.50 | 124. | 55. | 20. | 28.42 |

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

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1****************************************                                                              ****************************************
 *                                      *                                                              *                                      *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                                              *   U.S. ARMY CORPS OF ENGINEERS       *
 *              JUN   1998              *                                                              *   HYDROLOGIC ENGINEERING CENTER      *
 *            VERSION 4.1               *                                                              *         609 SECOND STREET            *
 *                                      *                                                              *     DAVIS, CALIFORNIA 95616          *
 *  RUN DATE   18OCT06  TIME  16:10:08  *                                                              *         (916) 756-1104               *
 *                                      *                                                              *                                      *
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                                                  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


1                                                    HEC-1 INPUT                                                       PAGE  1

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

                    1           ID   REC24DRCH.DAT
                    2           ID   SEPTEMBER 2006
                    3           ID   100-YEAR 24-HOUR
                    4           ID   THIS REVISION MODIFIES THE FOLLOWING SUBBASINS:
                    5           ID   Sub-basin JB2 TO routing RTEEEA REMOVED due to Tres Rios Project.
                    6           ID   Subbasin EA:  Reduced area by 73% due to Tres Rios Project.
                    7           ID   Changed retention volume to reflect reduced drainage area.
                    8           ID   Subbasins CC, DD, DC, and EA: assumed medium density development for
                    9           ID   all future development.
                   10           ID   Routings DDCC and EADC: existing conditions routing used
                   11           ID   insted of the proposed Sunland Channel routing.
                   12           ID   Smaller Sunland Channel used to route CCSC and DCCC.
                   13           ID   Moved subbasin DD to route to CPDC.
                   14           ID   Hard coded contributing area in HC cards for ~CPCC, ~CPDC, and CPEA
                   15           ID   due to Tres Rios diversion.
                   16           ID   Diverted flow from subbasins EA, DD, CC, and DC to model 100-YR 6-HR
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 17          ID   future development retention.
 18          ID   by Aspen Consulting Engineers
             * *****************************************************************
             * The following is the Aspen revised model for the DRCC.
             * *****************************************************************
 19          ID   REC24FINAL.DAT
 20          ID   ASPEN CONSULTING ENGINEERS, JCS and POL, JANUARY 25, 2006
 21          ID   24-HOUR RAINFALL
 22          ID   DURANGO REGIONAL CONVEYANCE CHANNEL AND SUNLAND CHANNEL
 23          ID   AVONDALE AND PHOENIX ARIZONA
 24          ID   THIS HEC-1 MODEL IS THE SAME AS THE REC24.DAT MODEL FOR THE SAME AREA,
 25          ID   DATED NOVEMBER 9, 2005 AND DELIVERED TO THE FCDMC ON DECEMBER 23, 2005,
 26          ID   WITH THE FOLLOWING CHANGES:
 27          ID   1.  ROUTING AT KKMCJCJB (75TH AVENUE TO 83RD AVENUE) MODIFIED TO
 28          ID       ROUTE OVER DETENTION BASINS IN DRCC ALIGNMENT (THESE RETENTION BASINS
 29          ID       FOR LOCAL SUBDIVISIONS ASSUMED TO BE CONVERTED TO FLOW-THROUGH
 30          ID       BY NEW CULVERT IN 83RD AVENUE AT DRCC ALIGNMENT)
 31          ID   2.  MODIFIED PULS ROUTING AT RRJB1 (83RD AVENUE) MODIFIED TO CONFORM TO
 32          ID       UPDATED CULVERT SIZE AND FIELD MEASUREMENTS OF RETENTION BASIN CAPACITY
 33          ID       UPSTREAM OF 83RD AVENUE
 34          ID   3.  KKRJBED1 AND KKRJBED2 ROUTING ADDED TO ROUTE FLOW FROM 83RD TO 91ST.
 35          ID       THIS IS 8-POINT CROSS SECTION ROUTING OVER EXISTING SUBDIVISION RETENTION
 36          ID   4.  RETENTION FOR SUBBASIN ED1 IS MODIFIED TO ACCOUNT FOR A PORTION OF THE
 37          ID       100-YEAR 2-HOUR RETENTION REMAINING AFTER CONSTRUCTION OF A 10-YEAR
 38          ID       CULVERT AT 91ST AVENUE.  THAT PORTION OF THE RETENTION UPSTREAM OF AN
 39          ID       IRRIGATION CANAL LOCATED AT THE HALFWAY POINT OF THIS BASIN IS ASSUMED TO
 40          ID       REMAIN IN PLACE.  THE REST IS ASSUMED TO BE CONVERTED TO DETENTION BY
 41          ID       CONSTRUCTION OF A CULVERT AT 91ST AVENUE.
 42          ID   5.  RETENTION FOR SUBBASIN ED2 IS MODIFIED TO ASSUME 100-YEAR, 2-HOUR
 43          ID       RETENTION WILL REMAIN IN PLACE AFTER CONSTRUCTION OF A CULVERT AT
 44          ID       91ST AVENUE.
 45          ID   6.  DETENTION AT KKRRED IN DRCC ALIGNMENT AT 91ST AVENUE IS REVISED TO
 46          ID       REFLECT MODIFIED BOX CULVERT AND FIELD MEASUREMENTS OF EXISTING
 47          ID       RETENTION BASIN UPSTREAM OF 91ST AVENUE
 48          ID   7.  ROUTING USING 8-POINT CROSS SECTION ADDED FOR FLOW ALONG DRCC ALIGNMENT
 49          ID       FROM 91ST AVENUE TO 107TH AVENUE.  THIS IS KKRT95, WHICH TAKES THE FLOW
 50          ID       91ST TO THE 95TH BASIN, KKRT99, WHICH TAKES THE FLOW FROM 95TH BASIN
 51          ID       TO 99TH, AND KKRT107, WHICH TAKES THE FLOW FROM 99TH TO 107TH.  THE ROUTI
 52          ID       CHANNEL IS AN EXISTING CHANNNEL WITH 20-FOOT BOTTOM WIDTH, DEPTH
1                                       HEC-1 INPUT                                       PAGE  2

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

 53          ID       APPROXIMATELY 7 FEET, AND TOP WIDTH APPROXIMATELY 65 FEET.  UNDER CURRENT
 54          ID       CONDITIONS THIS CHANNEL ENDS APPROXIMATELY 1300 FEET UPSTREAM OF 107TH.
 55          ID   8.  AN IN-LINE DETENTION BASIN IS PLACED SOUTH OF THE DRCC ALIGNMENT JUST
 56          ID       DOWNSTREAM OF 95TH AVENUE.  THIS IS KK95BASIN
 57          ID   9.  SINCE BREACHING EXISTING RETENTION BASINS IS UNLIKELY, SUBBASINS ID1 AND
 58          ID       ID2 ARE ASSUMED TO HAVE 100-YEAR 2-HOUR RETENTION
 59          ID   10. THE MODIFIED PULS ROUTING AT 99TH (KK RRID1)IS MODIFIED TO REFLECT THE
 60          ID       EXISTING BOX CULVERT AND CHANNEL AT THAT
 61          ID       LOCATION
 62          ID   11. THE MODIFIED PULS ROUTING AT 107TH (KK  RRIB) IS MODIFIED TO REFLECT
 63          ID       A REVISED BOX CULVERT AT THAT LOCATION, AS WELL AS REVISED CHANNEL
```

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 64      ID   12. THE OFFLINE DETENTION BASIN AT 99TH AVENUE IS REMOVED.
         *DIAGRAM
         * MODIFIED IT CARD FOR DSS RUN  SLT
         * IT      5           1200    2000
 65      IT        5 09MAR95   1200    2000
 66      IO        5
 67      IN       15
         *
 68      JD     3.99    0.01
 69      PC    0.000   0.002   0.005   0.008   0.011   0.014   0.017   0.020   0.023   0.026
 70      PC    0.029   0.032   0.035   0.038   0.041   0.044   0.048   0.052   0.056   0.060
 71      PC    0.064   0.068   0.072   0.076   0.080   0.085   0.090   0.095   0.100   0.105
 72      PC    0.110   0.115   0.120   0.126   0.133   0.140   0.147   0.155   0.163   0.172
 73      PC    0.181   0.191   0.203   0.218   0.236   0.257   0.283   0.387   0.663   0.707
 74      PC    0.735   0.758   0.776   0.791   0.804   0.815   0.825   0.834   0.842   0.849
 75      PC    0.856   0.863   0.869   0.875   0.881   0.887   0.893   0.898   0.903   0.908
 76      PC    0.913   0.918   0.922   0.926   0.930   0.934   0.938   0.942   0.946   0.950
 77      PC    0.953   0.956   0.959   0.962   0.965   0.968   0.971   0.974   0.977   0.980
 78      PC    0.983   0.986   0.989   0.992   0.995   0.998   1.000
 79      JD    3.751   10.00
 80      JD    3.591   30.00
 81      JD    3.431   60.00
 82      JD    3.376   90.00
         *

 83      KK    SUBWD   BASIN
 84      KM     VALLEY S-GRAPH WAS USED FOR THIS BASIN
 85      BA    0.393
 86      LG     0.20    0.19    7.00    0.17      12
 87      UI       32      42     116     157     189     226     281     403     348     281
 88      UI      240     193     156     115      65      54      42      32      17      10
 89      UI       10      10      10       9       0       0       0       0       0       0
 90      UI        0       0       0       0       0       0       0       0       0       0
         *

 91      KK   RTWDXA   ROUTE   REACH
 92      KM           ROUTE FLOW FROM WD TO XA (ALONG 27TH AVENUE).
 93      KM           TYPE C CHANNEL
 94      RS        4              -1       0
 95      RC    0.025   0.025   0.025    2500  0.0016    0.00
 96      RX      0.0   100.0   400.0   500.0   500.1   600.0   900.0  1000.0
 97      RY      5.0     4.0     1.0     0.0     0.0     1.0     4.0     5.0
         *
```



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

 98      KK    SUBXA   BASIN
 99      KM     VALLEY S-GRAPH WAS USED FOR THIS BASIN
100      BA    0.247
101      LG     0.13    0.15    9.70    0.06      44
102      UI       34     125     193     268     417     308     225     157      74      48
103      UI       29      10      11      11       0       0       0       0       0       0
```

```
 104          UI       0       0       0       0       0       0       0       0       0       0
              *

 105          KK    CPXA1
 106          KM    ADD HYDROGRAPHS AT XA
 107          HC       2
              *
              * KK  RSXA
              * KM MODIFIED PULS ROUTING THROUGH PONDING BEHIND SPRR.
              * RS     1    STOR       0       0
              * SV   .01     .07     1.0     5.1    14.0    28.5    50.0    79.1   117.4    165
              * SE1063.3  1063.5  1063.6  1064.1  1064.6  1065.1  1065.6  1066.1  1066.6   1067
              * SQ     0      15      43     455    1751    3879    6999   11192   17236    253
              *

 108          KK    DIXAO
 109          KM    DIVERT FLOW FROM XA SOUTHWARD OVER SPRR AND OUT OF MODEL
 110          DT    DIZZ1
 111          DI       0       0      43     455    1751    3879    6999   11192   17236   25382
 112          DQ       0       0       0       0       0       0       0      44     960    3141
              *

 113          KK  RTXAWC   ROUTE   REACH
 114          KM         ROUTE FLOW FROM XA TO WC (ALONG SPRR).
 115          KM         TYPE C CHANNEL
 116          RS      12              -1       0
 117          RC   0.035   0.035   0.035    5100  0.0016    0.00
 118          RX     0.0    20.0    35.0    50.0    50.1   250.0   450.0   550.0
 119          RY     5.0     5.0     2.5     0.0     0.0     2.0     4.0     5.0
              *

 120          KK    SUBWB   BASIN
 121          KM     VALLEY S-GRAPH WAS USED FOR THIS BASIN
 122          BA    0.667
 123          LG    0.16    0.15    9.70    0.06      36
 124          UI      60     103     240     316     391     474     689     701     538     442
 125          UI     358     278     177     107      94      61      41      19      18      19
 126          UI      19      18       0       0       0       0       0       0       0       0
 127          UI       0       0       0       0       0       0       0       0       0       0
              *

 128          KK  RTWBWC   ROUTE   REACH
 129          KM         ROUTE FLOW FROM WB TO WC (ALONG 35TH AVENUE).
 130          KM         TYPE C CHANNEL
 131          RS       3              -1       0
 132          RC   0.025   0.025   0.025    2500  0.0020    0.00
 133          RX     0.0   100.0   400.0   500.0   500.1   600.0   900.0  1000.0
 134          RY     5.0     4.0     1.0     0.0     0.0     1.0     4.0     5.0
              *
```

```
135   KK   SUBWC   BASIN
136   KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN
137   BA   0.487
138   LG    0.16     0.16     9.70     0.06       43
139   UI      46       90      195      255      315      404      581      477      377      302
140   UI     240      167       90       78       48       36       14       15       14       14
141   UI       0        0        0        0        0        0        0        0        0        0
      *

142   KK    CPWC
143   KM    ADD HYDROGRAPHS AT WC.
144   HC       3
      *
      * KK  RSWC
      * KM MODIFIED PULS ROUTING THROUGH PONDING BEHIND SPRR.
      * KM Revised SV-SQ records to reflect new weir analysis based on survey. 03.15.0
      * KO       1
      * RS       1     STOR        0        0
      * SV  16.1     27.6     44.0     65.2     90.7    121.5    159.6    206.8    263.7    329
      * SE1057.1   1057.6   1058.1   1058.6   1059.1   1059.6   1060.1   1060.6   1061.1   1061
      * SQ     0       34      456     1381     2859     4933     7982    12958    19919    288
      *

145   KK  DIWCWA
146   KM   DIVERT FLOW FROM WC TO QE
147   KM   Revised DQ records to reflect new weir analysis based on survey. 05.4.00 JEP
148   DT    DIQE
149   DI       0       34      456     1381     2859     4933     7982    12958    19919    28835
150   DQ       0        0        0        0        0        0      141     1221     3463     6954
      *
      * KKDIWCQE
      * KM DIVERT FLOW FROM WC TO QE
      * DT  DIQE
      * DI     0      115      608     1579     3086     5253     8972    15024    23745    350
      * DQ     0        0        0        0        0       40      951     3350     7104    121
      *

151   KK  RTWCWA
152   KM   HEC-RAS REACH
153   KM        ROUTE FLOW FROM WC TO WA (ALONG SPRR).
154   KM        Channel geometry changed to match natural conditions 04.11.00  JEP
155   KM        Manning's N values changed to match approved values 04.11.00  JEP
156   KM        Method changed from Normal Depth Storage to Modified Puls 05.25.00 JEP
157   KM        Stage-storage values are based on HEC-2 analysis results 06.19.00 JEP
158   KM        Values transferred directly from HEC-2 file: Tape7_1 09.29.00 JEP
159   RS      15     STOR        0        0
160   SV       0      103      168      242      267      296      317      332      338      354
161   SV     375
162   SQ       0      200      400      800     1000     1200     1400     1600     1700     1900
163   SQ    2200
      * RC  .129     .129     .129     4850    .0010
      * RX     0       40      200      410      870     1240     1700     2160
      * RY   4.4      3.8        0      1.6        0      1.8      2.8      4.4
      *
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                 *
 LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  164            KK   SUBWA   BASIN
  165            KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN
  166            BA   0.492
  167            LG    0.15    0.15   10.10    0.05      43
  168            UI      75     302     455     683     855     573     402     209     117      67
  169            UI      23      23      23       0       0       0       0       0       0       0
  170            UI       0       0       0       0       0       0       0       0       0       0
                 *

  171            KK   CPWA1
  172            KM    ADD HYDROGRAPH SUBWA TO RTWCWA
  173            HC       2
                 *

  174            KK   SUBVD   BASIN
  175            KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN
  176            BA   0.697
  177            LG    0.16    0.16    9.70    0.06      36
  178            UI      63     108     251     330     408     495     720     733     562     461
  179            UI     375     291     185     112      98      63      44      19      20      19
  180            UI      20      19       0       0       0       0       0       0       0       0
  181            UI       0       0       0       0       0       0       0       0       0       0
                 *

  182            KK  RTVDWA   ROUTE   REACH
  183            KM        ROUTE FLOW FROM VD TO WA (ALONG 43RD AVENUE).
  184            KM        FUTURE ARTERIAL SECTION
  185            RS       1              -1       0
  186            RC   0.100   0.023   0.100    2500  0.0030    0.00
  187            RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
  188            RY     105     105     105   99.75   99.75     105     105     105
                 *

  189            KK   CPWA2
  190            KM    ADD HYDROGRAPHS FROM SUBWA AND RTWCWA TO RTVDWA.
  191            HC       2
                 *
                 * KK  RSWA
                 * KM MODIFIED PULS ROUTING THROUGH PONDING BEHIND SPRR.
                 * KM Revised SV-SQ records to reflect new weir analysis based on survey. 03.15.0
                 * KO     1
                 * RS     1    STOR       0       0
                 * SV   1.3     1.9     2.4     3.1     4.0     8.5    16.7    29.9    48.5     74
                 * SE1050.7  1050.9  1051.1  1051.3  1051.4  1051.9  1052.4  1052.9  1053.4   1053
                 * SQ     0       0       0       0       0      77     562    1532    3131     53
                 *

  192            KK  DIWAVC
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```
 193          KM        DIVERT FLOW FROM WA TO QD OVER SPRR
 194          KM   Revised DQ records to reflect new weir analysis based on survey. 05.4.00 JEP
 195          KM   Revised DQ records based on HEC-2 analysis results.  06.28.00 JEP
 196          DT    DIQD
 197          DI       0     200     400     800    1000    1200    1400    1600    1700    1900
 198          DQ       0       0      42     369     555     746     942    1140    1174    1370
              *
              * KKDIVCQD
              * KM DIVERT FLOW FROM VC TO QD OVER SPRR
              * DT  DIQD
              * DI     0     810    9237   10710
              * DQ     0       0       0      63
              *
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 199          KK  RTWAVC
 200          KM   HEC-RAS REACH
 201          KM        MODIFIED PULS ROUTE FLOW FROM WA TO VC (ALONG SPRR).
              * KM      Channel geometry changed to match natural conditions 04.11.00  JEP
 202          KM        Manning's N values changed to match approved values 04.11.00  JEP
 203          KM        Method changed from Normal Depth Storage to Modified Puls 05.22.00 JEP
 204          KM        Stage-Storage values based on HEC-2 analysis results.  06.19.00 JEP
 205          KM        Values transferred directly from HEC-2 file:  Tape7_2  9.29.00 JEP
 206          RS      15    STOR       0       0
 207          SV       0     146     178     193     201     208     212
 208          SQ       0     400     600     800     989    1247    1487
              * RC  .317    .317    .317    5270   .0005
              * RX     0      50     120     390     810     950    1400    1700
              * RY   6.8       0       0     1.8     2.8     3.8     5.1     6.8
              *

 209          KK   SUBVC   BASIN
 210          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN
 211          BA   0.490
 212          LG    0.12    0.16    8.40    0.10      50
 213          UI      75     300     454     680     852     570     400     209     116      67
 214          UI      23      23      23       0       0       0       0       0       0       0
 215          UI       0       0       0       0       0       0       0       0       0       0
              *

 216          KK   CPVC1
 217          KM    ADD HYDROGRAPH SUBVC TO RTWAVC.
 218          HC       2
              *

 219          KK   SUBVB   BASIN
 220          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN
 221          BA   0.720
 222          LG    0.15    0.17    9.70    0.06      45
 223          UI     121     489     718    1162    1201     810     529     243     146      66
 224          UI      36      36       0       0       0       0       0       0       0       0
```

```
225          UI       0       0       0       0       0       0       0       0       0       0
             *

226          KK  RTVBVC    ROUTE   REACH
227          KM        ROUTE FLOW FROM VB TO VC (ALONG 51ST AVENUE).
228          KM        FUTURE ARTERIAL SECTION
229          RS       1              -1       0
230          RC   0.100   0.023   0.100    2500  0.0017    0.00
231          RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
232          RY     105     105     105   99.75   99.75     105     105     105
             *

233          KK   CPVC2
234          KM    ADD HYDROGRAPHS FROM SUBVC AND RTWAVC TO RTVBVC.
235          HC       2
             *
             * KK  RSVC
             * KM MODIFIED PULS ROUTING THROUGH PONDING BEHIND SPRR.
             * KM Revised SV-SQ records to reflect new weir analysis based on survey. 03.15.0
             * KO     1
             * RS     1    STOR       0       0
             * SV    70      83      97     113     121     170     192     216     284     3
             * SE1051.4  1051.6  1051.8  1052.0  1052.1  1052.6  1052.8  1053.0  1053.3  1053
             * SQ    16     246     746    1537    2048    5354    7033    8943   12315   147
             *
1                                     HEC-1 INPUT                                                   PAGE  7

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

236          KK  DIVCQA
237          KM   DIVERT FLOW FROM VC TO VA OVER 51st AVE.
238          KM   Revised DQ records to reflect new weir analysis based on survey. 05.4.00 JEP
239          KM   Revised DQ records based on HEC-2 analysis results.  06.19.00 JEP
240          DT    DIVA
241          DI       0     100     400     600     800     989    1247    1487
242          DQ       0       1      27      32      30      32      32      32
             *
             * KKDIVCVA
             * KM DIVERT FLOW FROM VC TO VA OVER 51st AVE.
             * DT  DIVA
             * DI     0       9     654    2822    7159
             * DQ     0       4     214     753    1814
             *

243          KK  RTVCQA    ROUTE   REACH
244          KM   ROUTE FLOW FROM VC TO QA (ALONG 51ST AVENUE).
245          KM   FUTURE ARTERIAL SECTION
246          RS       2              -1       0
247          RC   0.100   0.023   0.100    5000  0.0030    0.00
248          RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
249          RY     105     105     105   99.75   99.75     105     105     105
             *
```

```
 250           KK   SUBQA   BASIN
 251           KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN
 252           BA   0.485
 253           LG    0.34    0.14   10.10    0.05      20
 254           UI      38      40     133     178     215     253     303     423     464     361
 255           UI     306     252     209     170     115      67      63      44      38      18
 256           UI      12      11      12      11      12       0       0       0       0       0
 257           UI       0       0       0       0       0       0       0       0       0       0
               *

 258           KK   CPQA2
 259           KM   ADD HYDROGRAPHS AT QA
 260           HC       2
               *

 261           KK    RSQA
 262           KM        MODIFIED PLUS ROUTING THROUGH PONDING BEHIND RID
 263           RS       1    STOR      -1       0
 264           SV     6.6     9.4    13.0    17.4    22.4    28.1    34.6    42.1    50.4
 265           SE  1032.2  1032.4  1032.6  1032.8  1033.0  1033.2  1033.4  1033.6  1033.8
 266           SQ       0      69    1129    6033   11213
 267           SE  1031.9  1032.4  1032.9  1033.4  1033.9
               *

 268           KK  DIQAPF
 269           KM   DIVERT FLOW FROM QA TO PF
 270           DT    DIPF
 271           DI       0      69    1129    6033   11213
 272           DQ       0      39     462    1272    2210
               *
1                                   HEC-1 INPUT                                                PAGE  8

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


 273           KK  RTQAJH   ROUTE   REACH
 274           KM        ROUTE FLOW FROM QA TO JH (SHEET FLOW).
 275           KM        TYPE A CHANNEL
 276           RS      11              -1       0
 277           RC   0.100   0.100   0.100    2800  0.0031    0.00
 278           RX     0.0   100.0   400.0   500.0   500.1   600.0   900.0  1000.0
 279           RY     5.0     4.0     1.0     0.0     0.0     1.0     4.0     5.0
               *

 280           KK   SUBQE   BASIN
 281           KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN
 282           BA   0.913
 283           LG    0.15    0.13   10.10    0.04      56
 284           UI      92     200     409     529     670     915    1121     854     673     525
 285           UI     394     212     156     109      77      28      29      28      29       0
 286           UI       0       0       0       0       0       0       0       0       0       0
               *

 287           KK    DRQE
```

```
 288            KM    RETURN DIVERT FROM WC
 289            DR    DIQE
                *

 290            KK  RTDIQE   ROUTE   REACH
 291            KM        ROUTE DIVERT FROM WC TO QE
 292            KM        TYPE A CHANNEL
 293            RS       8               -1       0
 294            RC   0.025   0.025   0.025     6600  0.0030    0.00
 295            RX     0.0   100.0   400.0    500.0   500.1   600.0   900.0  1000.0
 296            RY     5.0     4.0     1.0      0.0     0.0     1.0     4.0     5.0
                *

 297            KK    CPQE
 298            KM        ADD HYDROGRAPHS AT QE
 299            HC       2
                *

 300            KK    RSQE
 301            KM        MODIFIED PULS ROUTING BEHIND RID CANAL
 302            RS       1    STOR        0       0
 303            SV     9.5    11.0    14.9     20.2    26.5    33.8   55.23    82.5    95.6   159.9
 304            SE  1040.1  1040.2  1040.4   1040.6  1040.8  1041.0  1041.5  1042.0  1042.2  1043.0
 305            SQ       0     1.8    62.8    242.3   581.9    1158    4169    9977   13108   31180
                *

 306            KK  RTQEQC   ROUTE   REACH
 307            KM        ROUTE FLOW FROM QE TO QC (SHEET FLOW).
 308            KM        TYPE A CHANNEL
 309            RS       3               -1       0
 310            RC   0.025   0.025   0.025     3000  0.0027    0.00
 311            RX     0.0   100.0   400.0    500.0   500.1   600.0   900.0  1000.0
 312            RY     5.0     4.0     1.0      0.0     0.0     1.0     4.0     5.0
                *
```



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

 313            KK   SUBQD   BASIN
 314            KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN
 315            BA   0.249
 316            LG    0.17    0.06   12.40     0.02      51
 317            UI      35     125     195      271     419     311     227     158      75      48
 318            UI      29      10      11       11       0       0       0       0       0       0
 319            UI       0       0       0        0       0       0       0       0       0       0
                *

 320            KK    DRQD
 321            KM   RETURN DIVERT FROM WA
 322            DR    DIQD
                *

 323            KK  RTDIQD   ROUTE   REACH
```

```
 324          KM        ROUTE DIVERT FROM WA TO QD
 325          KM        TYPE C CHANNEL
 326          RS      5               -1        0
 327          RC  0.100    0.023   0.100     5000  0.0030     0.00
 328          RX    0.0      440     445    445.1   575.1    575.2      900   1000.0
 329          RY    105      105     105    99.75   99.75      105      105      105
              *

 330          KK    CPQD
 331          KM    ADD HYDROGRAPHS AT QD
 332          HC      2
              *

 333          KK    RSQD
 334          KM        MODIFIED PULS ROUTING BEHIND RID CANAL.
 335          RS      1     STOR       0        0
 336          SV    2.8      4.8     8.6     14.6    22.5     31.9     42.6     54.8     65.5
 337          SE 1038.1   1038.5  1039.0   1039.5  1040.0   1040.5   1041.0   1041.5   1042.0
 338          SQ      0     30.5   388.4   1580.9  4070.0   7936.6  13214.2  19810.4  26117.2
              *

 339          KK  DIQDQB
 340          KM        DIVERT FLOW FROM QD TO QB
 341          DT    DIQB
 342          DI      0       31     388     1580    4070     7937    13214    19810    26117
 343          DQ      0        0      71      591    1899     3883     6624    10067    13292
              *

 344          KK  RTQDQC   ROUTE REACH
 345          KM        ROUTE FLOW FROM QD TO QC.
 346          KM        FUTURE ARTERIAL SECTION
 347          RS      1               -1        0
 348          RC  0.100    0.023   0.100     2600  0.0040     0.00
 349          RX    0.0      440     445    445.1   575.1    575.2      900   1000.0
 350          RY    105      105     105    99.75   99.75      105      105      105
              *
1                                        HEC-1 INPUT                                          PAGE 10

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

 351          KK   SUBQC    BASIN
 352          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN
 353          BA  0.606
 354          LG   0.23     0.16   10.10     0.04      32
 355          UI     63      146     285      371     474      679      733      552      429      333
 356          UI    233      119      98       64      33       20       20       19       20        0
 357          UI      0        0       0        0       0        0        0        0        0        0
              *

 358          KK    CPQC
 359          KM        ADD HYDROGRAPHS AT QC
 360          HC      3
              *
```

```
 361          KK   DIQCR
 362          KM   DIVERT 80% OF FLOW FROM QC TO RIVER
 363          DT    DISR
 364          DI       0      25      50      75     100     150     200
 365          DQ       0      20      40      60      80     120     160
              *

 366          KK  RTQCJI   ROUTE   REACH
 367          KM        ROUTE FLOW FROM QC TO JF
 368          KM        TYPE A CHANNEL
 369          RS      15              -1       0
 370          RC   0.100   0.100   0.100    6500  0.0028    0.00
 371          RX     0.0   100.0   400.0   500.0   500.1   600.0   900.0  1000.0
 372          RY     5.0     4.0     1.0     0.0     0.0     1.0     4.0     5.0
              *

 373          KK   SUBQB   BASIN
 374          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN
 375          BA   0.505
 376          LG    0.30    0.11   11.20    0.03      27
 377          UI      40      48     143     194     234     276     336     483     465     366
 378          UI     316     253     211     166      97      69      63      41      34      12
 379          UI      13      12      13      12      13       0       0       0       0       0
 380          UI       0       0       0       0       0       0       0       0       0       0
              *

 381          KK    DRQB
 382          KM        RETURN DIVERT FROM QD
 383          DR    DIQB
              *

 384          KK  RTDIQB   ROUTE   REACH
 385          KM        TYPE C CHANNEL
 386          RS      12              -1       0
 387          RC   0.100   0.100   0.100    2500  0.0028    0.00
 388          RX     0.0    20.0    35.0    50.0    50.1   250.0   450.0   550.0
 389          RY     5.0     5.0     2.5     0.0     0.0     2.0     4.0     5.0
              *
```



```
 390          KK    CPQB
 391          KM   ADD HYDROGRAPHS AT QB
 392          HC       2
              *

 393          KK    RSQB
 394          KM        MODIFIED PULS ROUTING THROUGH PONDING BEHIND RID.
 395          KM   THROUGH THE 43RD AVENUE.
 396          RS       1    STOR       0       0
 397          SV     9.4    13.9    19.2    25.5    33.1    41.8    51.7    62.9    75.3    89.1
```

```
398          SE  1033.3  1033.6  1033.9  1034.2  1034.5  1034.8  1035.1  1035.4  1035.7  1036.0
399          SQ       0    19.3   123.0   423.5   958.2  1718.8  2775.9  4426.7  6845.4  9954.3
             *

400          KK  RTQBJH   ROUTE REACH
401          KM   ROUTE FLOW FROM QB TO JH (SHEET FLOW).
402          KM        TYPE A CHANNEL
403          RS      15              -1       0
404          RC   0.100   0.100   0.100    3500  0.0028    0.00
405          RX     0.0   100.0   400.0   500.0   500.1   600.0   900.0  1000.0
406          RY     5.0     4.0     1.0     0.0     0.0     1.0     4.0     5.0
             *

407          KK   SUBJH   BASIN
408          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN
409          BA   0.516
410          LG    0.37    0.11   11.20    0.03      17
411          UI      62     175     314     402     581     733     541     418     304     176
412          UI     107      71      41      19      19      19       0       0       0       0
413          UI       0       0       0       0       0       0       0       0       0       0
             *

414          KK    CPJH
415          HC       4
             *

416          KK  RTJHJI   ROUTE REACH
417          KM   ROUTE FLOW FROM JH TO JI (SHEET FLOW).
418          KM        TYPE A CHANNEL
419          RS      14              -1       0
420          RC   0.100   0.100   0.100    4000  0.0031    0.00
421          RX     0.0   100.0   400.0   500.0   500.1   600.0   900.0  1000.0
422          RY     5.0     4.0     1.0     0.0     0.0     1.0     4.0     5.0
             *

423          KK   SUBJI   BASIN
424          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN
425          BA   0.308
426          LG    0.39    0.11   11.20    0.03      21
427          UI      52     209     307     497     514     346     227     104      62      28
428          UI      16      15       0       0       0       0       0       0       0       0
429          UI       0       0       0       0       0       0       0       0       0       0
             *
```



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

430          KK    CPJI
431          KM   COMBINE FLOWS AT JI
432          HC       2
             *

433          KK   DISRX
```

```
434          KM    DUMMY DIVERT TO SALT RIVER (NOT RETURNED)
435          DT   DISR1
436          DI       0   10000
437          DQ       0   10000
             *

438          KK   SUBPF   BASIN
439          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN
440          BA   0.502
441          LG    0.17    0.20    7.30    0.12      52
442          UI     113     407     611    1001     766     497     244     127      58      26
443          UI      28       0       0       0       0       0       0       0       0       0
444          UI       0       0       0       0       0       0       0       0       0       0
             *

445          KK   RETPF
446          KM   DIVERT RETENTION OUT OF MODEL DUE TO KNIGHT TRANSPORTATION
447          KM   PARKING LOT EXPANSION. -DCF
448          KM   TOTAL RETENTION IS 3.9 AF. 80% OF THAT IS USED HERE. -DCF
449          DT   RETPF     3.1
450          DI       0   10000
451          DQ       0   10000
             *

452          KK    DRPF
453          KM        RETURN DIVERT FROM QA.
454          DR    DIPF
             *

455          KK  RTDIPF   ROUTE   REACH
456          KM         ROUTE DIVERT FROM QA TO PF.
457          KM         TYPE C CHANNEL
458          RS      11              -1       0
459          RC   0.035   0.035   0.035    2600  0.0005    0.00
460          RX     0.0    20.0    35.0    50.0    50.1   250.0   450.0   550.0
461          RY     5.0     5.0     2.5     0.0     0.0     2.0     4.0     5.0
             *

462          KK   @CPPF
463          KM        ADD HYDROGRAPHS AT PF
464          HC       2    5.19
             *
```



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

465          KK    RSPF
466          KM        MODIFIED PULS ROUTING BEHIND RID
             * KO      1
467          RS       1    STOR       0       0
468          SV    28.2    33.4    39.2    48.8    55.7    67.3    76.0    85.3   100.7   111.8
469          SE  1032.2  1032.4  1032.6  1032.8  1033.0  1033.2  1033.4  1033.6  1033.8  1034.0
470          SQ       0    19.4   124.9   457.5  1050.9  1875.2  2964.8  4437.1  6362.7  8725.9
```

```
                    *

 471                KK  DIPFPE
 472                KM        DIVERT FLOW FROM PF TO PE
 473                DT    DIPE
 474                DI       0      255     1875     5340    11513
 475                DQ       0        0        0      160     1143
                    *

 476                KK  RTPFJF   ROUTE   REACH
 477                KM        ROUTE FLOW FROM PF TO JF.
 478                KM        TYPE A CHANNEL
 479                RS       6                -1        0
 480                RC   0.035    0.035    0.035     4000   0.0040     0.00
 481                RX     0.0     20.0     35.0     50.0     50.1    250.0    450.0    550.0
 482                RY     5.0      5.0      2.5      0.0      0.0      2.0      4.0      5.0
                    *

 483                KK    SUBUD   BASIN
 484                KM     THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 485                KM     L=      1.3  Lca=       .6    S=   20.0  Kn= .020  LAG=  14.9
 486                KM     PHOENIX VALLEY S-GRAPH WAS USED FOR THIS BASIN
 487                BA     .759
 488                LG     .15      .15     9.70      .05    55.00
 489                UI    306.     941.    1739.    1494.     851.     324.     131.      53.       0.       0.
 490                UI      0.       0.       0.       0.       0.       0.       0.       0.       0.
                    *

 491                KK     RETUD
 492                KM    DIVERT REQUIRED DEVELPMENT RETENTION OUT OF MODEL
 493                KM    80% OF REQUIRED MODELED
 494                DT    RETB1     38.7
 495                DI       0    10000
 496                DQ       0    10000
                    *

 497                KK   SDDRUD
 498                KM    DIVERT STORM DRAIN FLOW
 499                DT   59SD1D
 500                DI       0      102    10000
 501                DQ       0      102      102
                    *
```



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

 502                KK   DIUDUA
 503                KM    DIVERT 25% OF FLOW FROM UD TO UA.
 504                DT     DIUA
 505                DI       0       25       50       75      100      150      200
 506                DQ       0        6       13       19       25       38       50
                    *
```

```
507   KK  RTUDVA   ROUTE   REACH
508   KM        ROUTE FLOW FROM UD TO VA (ALONG 59TH AVENUE).
509   KM        FUTURE ARTERIAL SECTION
510   RS       1              -1       0
511   RC   0.100   0.023   0.100    2600  0.0019    0.00
512   RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
513   RY     105     105     105   99.75   99.75     105     105     105
      *

514   KK   SUBVA   BASIN
515   KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN
516   BA   0.493
517   LG    0.10    0.15    8.40    0.10      58
518   UI      75     303     456     684     857     574     402     210     117      67
519   UI      23      23      24       0       0       0       0       0       0       0
520   UI       0       0       0       0       0       0       0       0       0       0
      *
      * THE FOLLOWING DIVERT RETURN IS REMOVED TO MODEL THE ADMP CONDITION

521   KK    DRVA
522   KM        RETURN DIVERT FROM VC
523   DR    DIVA
      *
      * KKRTDIVA
      * KM HEC-RAS REACH
      * KO     1
      * KM      ROUTE FLOW FROM VC TO VA (ALONG SPRR).
      * KM      Method changed from Normal Depth Storage to Modified Puls 06.19.00 JEP
      * KM      Stage-Storage values are based on HEC-2 analysis results. 06.19.00 JEP
      * KM      Values transferred directly from HEC-2 file:  Tape7_3  09.29.00  JEP
      * RS    15    STOR       0       0
      * SV     0      56      87     130     163     191     205     218     227
      * SQ     0     100     200     400     600     800    1000    1200    1500
      *

524   KK   CPVA1
525   KM        ADD HYDROGRAPH SUBVA TO RTDIVA
526   HC       3
      *
      *

527   KK  SDDRVA
528   KM   DIVERT STORM DRAIN FLOW
529   DT  59SD2D
530   DI       0      59   10000
531   DQ       0      59      59
      *
      * KK CPVA2
      * KM      ADD HYDROGRAPHS SUBVA AND RTDIVA TO RTUDVA
      * HC     2
      *
      * KK  RSVA
      * KM MODIFIED PULS ROUTING THROUGH PONDING BEHIND SPRR.
      * KM Revised SV-SQ records to reflect new weir analysis based on survey. 03.15.0
```

```
                * KO      1
                * RS      1    STOR        0        0
                * SV  10.3     13.3     15.6     23.9     34.6     48.9     67.7     90.8    118.6
                * SE1044.2   1044.3   1044.5   1045.0   1045.5   1046.0   1046.5   1047.0   1047.5
                * SQ      0        2       39      397     1279     2904     5363     8613    13175
                *
```



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

 532            KK  DIVAPE
 533            KM   DIVERT FLOW FROM VA TO UC OVER 59TH AVE.
 534            KM   Revised DQ records to reflect new weir analysis based on survey. 05.04.00 JEP
 535            KM   REVISED DIVERSION RECORDS TO REROUTE DIVERSION AROUND CODE SEQUENCE.
 536            KM   INSTEAD OF DIVERTING FLOW OVER THE WEIR TO THE SOUTH, FLOW IS BEING
 537            KM   DIVERTED TO THE WEST. 06.02.00 -DCF
 538            KM   Revised DQ records based on HEC-2 analysis results.  06.19.00 JEP
 539            DT    DIUC
 540            DI        0      200      400      600      800     1000     1200     1500
 541            DQ        0      200      398      548      656      715      738      756
                * DI      0        2       39      397     1279
                * DQ      0        0        0        0        0
                *

 542            KK  RTVAPE    ROUTE    REACH
 543            KM   ROUTE FLOW FROM VA TO PE (ALONG 59TH AVENUE).
 544            KM   FUTURE ARTERIAL SECTION
 545            RS        2                -1        0
 546            RC    0.100    0.023    0.100     3000   0.0038     0.00
 547            RX      0.0      440      445    445.1    575.1    575.2      900   1000.0
 548            RY      105      105      105    99.75    99.75      105      105      105
                *

 549            KK   SUBPE    BASIN
 550            KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN
 551            BA    0.504
 552            LG     0.13     0.26     6.20     0.22       56
 553            UI      130      449      692     1071      728      453      189      108       32       29
 554            UI        0        0        0        0        0        0        0        0        0        0
                *

 555            KK    DRPE
 556            KM    RETURN DIVERT FROM PF
 557            DR    DIPE
                *

 558            KK  RTDIPE
 559            KM          ROUTE DIVERT FROM PF TO PE.
 560            KM          TYPE C CHANNEL
 561            RS        3                -1        0
 562            RC     .035     .035     .035     2000    .0005
 563            RX        0       20       35       50     50.1      250      450      550
 564            RY        5        5      2.5        0        0        2        4        5
```

```
                    *

   565              KK    CPPE
   566              KM        ADD HYDROGRAPHS AT PE
   567              HC         3
                    *
```



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


   568              KK    RSPE
   569              KM         RESERVOIR ROUTING BEHIND 59TH AVE AND RID CANAL
   570              RS         1    STOR       0       0
   571              SV      15.6    16.9    21.0    24.0    29.5    33.7    38.3    43.2
   572              SE    1032.5  1032.6  1032.8  1033.0  1033.2  1033.4  1033.6  1033.7
   573              SQ         0    1.44      23     194     637    1420    2516    3177
                    *

   574              KK  DIPEPD
   575              KM         DIVERT FLOW FROM PE TO PD
   576              DT    DIPD
   577              DI         0     8.2     636    3177
   578              DQ         0       0       0     8.1
                    *

   579              KK  RTPEJF   ROUTE   REACH
   580              KM        ROUTE FLOW FROM PE TO JF (ALONG 59TH AVE).
   581              KM        FUTURE ARTERIAL SECTION
   582              RS         1              -1       0
   583              RC     0.100   0.023   0.100    2600  0.0036    0.00
   584              RX       0.0     440     445   445.1   575.1   575.2     900  1000.0
   585              RY       105     105     105   99.75   99.75     105     105     105
                    *

   586              KK     SUBJF   BASIN
   587              KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
   588              KM    L=        .7  Lca=        .4   S=    11.1  Kn= .027  LAG=   22.9
   589              KM    AGRICULTURAL S-GRAPH WAS USED FOR THIS BASIN
   590              BA     0.501
   591              LG      0.10    0.15    7.60    0.14      55
   592              UI       320    1108    1172     675     319     146      67      20      19      19
   593              UI         0       0       0       0       0       0       0       0       0       0
                    *

   594              KK     CPJF
   595              KM    COMBINE FLOWS AT JF.
   596              HC         3
                    *

   597              KK  RTJFJG   ROUTE   REACH
   598              KM        ROUTE FLOW FROM JF TO JE (ALONG 59TH AVE).
   599              KM        FUTURE ARTERIAL SECTION
   600              RS         3              -1       0
```

```
 601          RC   0.100   0.023   0.100    6000  0.0036    0.00
 602          RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
 603          RY     105     105     105   99.75   99.75     105     105     105
              *

 604          KK   SUBJG   BASIN
 605          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 606          KM    L=        .7  Lca=        .4    S=    11.1  Kn= .027  LAG=  22.9
 607          KM    AGRICULTURAL S-GRAPH WAS USED FOR THIS BASIN
 608          BA   0.901
 609          LG    0.12    0.16    8.40    0.10      51
1                                         HEC-1 INPUT                                                    PAGE 17

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

 610          UI     195     717    1181    1396    1191     840     531     336     203     134
 611          UI      96      35      20      21      21      20      21       0       0       0
 612          UI       0       0       0       0       0       0       0       0       0       0
              *

 613          KK    CPJG
 614          KM   COMBINE FLOWS AT SALT RIVER.
 615          HC       2
              *

 616          KK  CPJGSR
 617          KM   COMBINE FLOWS AT SALT RIVER
 618          HC       2
              *
              * ****************************************************************************
              *

 619          KK    DRUC
 620          KM    RETURN DIVERT FROM VA
 621          DR    DIUC
              *
              *
              * KKRTVAUC   ROUTE   REACH
              * KM      ROUTE FLOW FROM VA TO UC
              * KM      Channel geometry changed to match natural conditions 04.11.00  JEP
              * KM      Manning's N values changed to match approved values 04.11.00  JEP
              * RS      9              -1       0
              * RC 0.035    0.035   0.035    5200  0.0012    0.00
              * RX   0.0     20.0    35.0    50.0    50.1   250.0   450.0   550.0
              * RY   5.0      5.0     2.5     0.0     0.0     2.0     4.0     5.0
              *

 622          KK  RTVAUC
 623          KM   HEC-RAS REACH
 624          KM        ROUTE FLOW FROM VA TO A POINT IN UC (ALONG SPRR).
 625          KM        Channel geometry changed to match natural conditions 04.11.00  JEP
 626          KM        Manning's N values changed to match approved values 04.11.00  JEP
 627          KM        Method changed from Normal Depth Storage to Modified Puls 05.25.00 JEP
 628          KM        Stage-storage values are from HEC-2 results 06.19.00 JEP
```

```
629            KM       Values transferred directly from HEC-2 file: Tape7_4  09.29.00 JEP
630            KM       Values modified to reflect channelization downstream  06.11.01 JEP
631            RS       9    STOR       0       0
632            SV       0      46      62      76      90     102     114     125     137
633            SQ       0     200     400     600     800    1000    1200    1400    1600
               *
               * KKSUBUC    BASIN
               * KM  VALLEY S-GRAPH WAS USED FOR THIS BASIN
               * BA 0.483
               * LG  0.23    0.15    9.70    0.06      28
               * UI    49     105     217     280     354     484     594     451     356      2
               * UI   208     113      83      57      41      15      15      14      15
               * UI     0       0       0       0       0       0       0       0       0
               *
               * KK@CPUC1
               * KM       ADD HYDROGRAPHS SUBUC1 TO RTVAUC
               * HC     2    1.73
               *
1                                        HEC-1 INPUT                                         PAGE 18

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


634            KK  MCUCUC   ROUTE   REACH
635            KM   ADMP CHANNEL
636            KM   MASTER CHANNEL ROUTE FROM UC1 TO UC2
637            KM   ROUTING RECORD ADDED, JEP 6/11/01
638            RS       1    FLOW      -1
639            RC   0.014   0.014   0.014    2493  0.0014    0.00
640            RX     0.0    16.0    16.0    16.0    46.0    46.0    46.0    62.0
641            RY     4.8     5.1     2.6     0.0     0.0     2.6     5.1     4.8
               *

642            KK  SUBUC    BASIN
643            KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN
644            BA   0.483
645            LG    0.23    0.15    9.70    0.06      28
646            UI      49     105     217     280     354     484     594     451     356     278
647            UI     208     113      83      57      41      15      15      14      15       0
648            UI       0       0       0       0       0       0       0       0       0       0
               *

649            KK   @CPUC
650            KM        ADD HYDROGRAPHS SUBUC TO MCUCUC
651            HC       2    1.73

652            KK  SUBTB1
653            KM   BASIN TB1
654            KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
655            KM    L=       .9  Lca=       .3   S=     9.4  Kn= .020  LAG=  10.4
656            KM    PHOENIX VALLEY S-GRAPH WAS USED FOR THIS BASIN
657            BA     .14
658            LG     .25     .15    9.70     .05   30.00
659            UI    118.    367.    381.    146.     40.     14.      0.      0.      0.      0.
```

```
  660          UI      0.       0.       0.       0.       0.       0.       0.       0.       0.       0.
               *

  661          KK   RETB1
  662          KM   DIVERT REQUIRED DEVELPMENT RETENTION OUT OF MODEL
  663          KM   80% OF REQUIRED MODELED
  664          DT   RETB1     11.2
  665          DI        0   10000
  666          DQ        0   10000
               *

  667          KK  SDDTB1
  668          KM   DIVERT STORM DRAIN FLOW
  669          DT  67SD1D
  670          DI        0       17   10000
  671          DQ        0       17      17
               *
1                                          HEC-1 INPUT                                               PAGE 19

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


  672          KK  RTUAUC    ROUTE    REACH
  673          KM        ROUTE FLOW FROM TB1 TO UA (ALONG 67TH AVENUE).
  674          KM        FUTURE ARTERIAL SECTION
  675          RS        2                -1        0
  676          RC    0.100    0.023    0.100     2450  0.0015      0.00
  677          RX      0.0      440      445    445.1    575.1    575.2      900   1000.0
  678          RY      105      105      105    99.75    99.75      105      105      105
               *

  679          KK   SUBUA    BASIN
  680          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN
  681          BA   0.561
  682          LG     0.23     0.16     9.70     0.06       22
  683          UI       44       46      155      204      249      294      350      490      536      417
  684          UI      354      291      242      198      133       77       73       51       43       21
  685          UI       13       13       14       13       14        0        0        0        0        0
  686          UI        0        0        0        0        0        0        0        0        0        0
               *

  687          KK    DRUA
  688          KM    RETURN DIVERT FROM UD
  689          DR    DIUA
               *

  690          KK  RTDIUA    ROUTE    REACH
  691          KM        ROUTE DIVERT TO UA
  692          KM        FUTURE ARTERIAL SECTION
  693          RS        4                -1        0
  694          RC    0.100    0.023    0.100     5000  0.0014      0.00
  695          RX      0.0      440      445    445.1    575.1    575.2      900   1000.0
  696          RY      105      105      105    99.75    99.75      105      105      105
               *
```

```
 697           KK   @CPUA
 698           KM        ADD HYDROGRAPHS AT UA
 699           HC       3    1.46
               *

 700           KK  SDDRUA
 701           KM   DIVERT STORM DRAIN FLOW
 702           DT  67SD1D
 703           DI       0      96   10000
 704           DQ       0      96      96
               *

 705           KK  DIUAUC
 706           KM        DIVERT 20% OF FLOW FROM UA TO TB
 707           DT   DITB
 708           DI       0      25      50      75     100     150     200
 709           DQ       0       5      10      15      20      30      40
               *
```



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


 710           KK  RTUAUC   ROUTE   REACH
 711           KM        ROUTE FLOW FROM UA TO UC (ALONG 67TH AVENUE).
 712           KM        FUTURE ARTERIAL SECTION
 713           RS       2              -1       0
 714           RC   0.100   0.023   0.100    2400  0.0017    0.00
 715           RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
 716           RY     105     105     105   99.75   99.75     105     105     105
               *

 717           KK  ~CPUC2
 718           KM        ADD HYDROGRAPHS SUBUC AND MCUCUC TO RTUAUC
 719           HC       2
               *
               * KK  RSUC
               * KM       ROUTE FLOW FROM UC TO UB OVER 67th AVE.
               * KM Revised SV-SQ records to reflect new weir analysis based on survey. 03.15.0
               * KO      1
               * RS      1    STOR       0       0
               * SV   4.8     6.9     9.9    19.0    33.0    52.6    77.4   108.7   148.6
               * SE1036.2  1036.3  1036.5  1037.0  1037.5  1038.0  1038.5  1039.0  1039.5
               * SQ     0       0      76     811    2294    4562    7715   11722   16588
               *

 720           KK  DIUCPC
 721           KM   DIVERT FLOW FROM UC TO PC OVER SPRR
 722           KM   Revised DQ records to reflect new weir analysis based on survey. 05.04.00 JEP
 723           KM   Revised DQ records based on HEC-2 results.  06.19.00 JEP
 724           KM   REVERSE DIVERT TO ROUTE AROUND CODE SEQUENCE. 06.21.00 -DCF
 725           KM   DIVERT EFFECTIVELY REMOVED DUE TO ADMP CHANNELIZATION.  06.11.01 -JEP
 726           DT    DIUB
```

```
 727          DI       0      100      400      800     1000     1200     1400     1600
 728          DQ       0      100      400      800     1000     1200     1400     1600
              * DI     0      100      400      800     1000     1200     1400     1600
              * DQ     0      100      400      674      825      854      914      945
              * DI     0      100      400      800     1000     1200     1400     1600
              * DQ     0        0        0      126      175      346      486      655
              *

 729          KK  RTUCPC   ROUTE    REACH
 730          KM   ROUTE FLOW FROM UC TO PC (ALONG 67TH AVE).
 731          KM   FUTURE ARTERIAL SECTION
 732          RS       3               -1        0
 733          RC   0.100    0.023    0.100     3000   0.0038     0.00
 734          RX     0.0      440      445    445.1    575.1    575.2      900   1000.0
 735          RY     105      105      105    99.75    99.75      105      105      105
              *

 736          KK   SUBPC   BASIN
 737          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN
 738          BA   0.300
 739          LG    0.18     0.19     8.80     0.06       42
 740          UI     160      482      829      518      214       79       23        0        0        0
 741          UI       0        0        0        0        0        0        0        0        0        0
              *
```



```
 742          KK    CPPC
 743          KM   COMBINE POSSIBLE FLOWS FROM UC WITH FLOWS FROM PC
 744          HC       2
              *

 745          KK    RSPC
 746          KM   MODIFIED PULS ROUTING FROM PC TO NB.
 747          RS       1     STOR        0        0
 748          SV    29.1     31.8     34.8     38.2       42       46     50.2     78.8    107.9    135.6
 749          SE  1029.8   1029.9   1030.0   1030.1   1030.2   1030.3   1030.4   1031.0   1031.5   1032.0
 750          SQ       5       27       70      134      225      357      545     3654     9263    17876
              *

 751          KK  RTPCNB   ROUTE    REACH
 752          KM        ROUTE FLOW FROM PC TO NB (ALONG 67TH AVE).
 753          KM        FUTURE ARTERIAL SECTION
 754          RS       7               -1        0
 755          RC   0.100    0.023    0.100     4800   0.0038     0.00
 756          RX     0.0      440      445    445.1    575.1    575.2      900   1000.0
 757          RY     105      105      105    99.75    99.75      105      105      105
              *

 758          KK   SUBNB   BASIN
 759          KM   BASIN NB
 760          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
```

```
761            KM    L=      1.4  Lca=       .7   S=   16.8  Kn= .020  LAG=  16.4
762            KM    PHOENIX VALLEY S-GRAPH WAS USED FOR THIS BASIN
763            BA     .44
764            LG     .25     .15    6.80     .16   12.00
765            UI    144.    464.    790.    956.    577.    284.    126.     48.     28.      0.
766            UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
               *

767            KK   RETNB
768            KM   DIVERT REQUIRED DEVELPMENT RETENTION OUT OF MODEL
769            KM   80% OF REQUIRED MODELED
770            DT   RETNB    33.5
771            DI       0   10000
772            DQ       0   10000
               *

773            KK   CPNB1
774            KM        ADD HYDROGRAPHS AT NB
775            HC        2
               *
               * KKDINBNA
               * KM      DIVERT 65% OF FLOW FROM NB TO NA
               * DT   DINA
               * DI      0      25      50      75     100     150     200
               * DQ      0      16      33      49      65      98     130
               *
```



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

776            KK  RTNBJD   ROUTE   REACH
777            KM        ROUTE FLOW FROM NB TO JD (ALONG 67TH AVENUE).
778            KM        FUTURE ARTERIAL SECTION
779            RS       3              -1       0
780            RC   0.100   0.023   0.100    5200  0.0054    0.00
781            RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
782            RY     105     105     105   99.75   99.75     105     105     105
               *

783            KK   SUBPD   BASIN
784            KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN
785            BA   0.443
786            LG    0.14    0.17    8.00    0.11      24
787            UI     130     438     708     954     610     331     138      64      27      27
788            UI       0       0       0       0       0       0       0       0       0       0
               *

789            KK    DRPD
790            KM    RETURN DIVERT FROM PE
791            DR    DIPD
               *

792            KK   CPPD2
```

```
793     KM        ADD HYDROGRAPH AT PD
794     HC       2
        *

795     KK    RSPD
796     KM        MODIFIED PULS ROUTING FROM PD TO NC.
        * KO     1
797     RS       1    STOR       0       0
798     SV    25.6    37.6    42.4    51.8    53.9    56.1    58.2
799     SE  1030.6  1030.7  1030.8  1030.9  1031.0  1031.1  1031.2
800     SQ       0       4      28     101     246     487     820
        *

801     KK  RTPDNC   ROUTE   REACH
802     KM        ROUTE FLOW FROM PD TO NC (SHEET FLOW).
803     KM        TYPE A CHANNEL
804     RS       5              -1       0
805     RC   0.035   0.035   0.035    3000  0.0027    0.00
806     RX     0.0   100.0   400.0   500.0   500.1   600.0   900.0  1000.0
807     RY     5.0     4.0     1.0     0.0     0.0     1.0     4.0     5.0
        *

808     KK   SUBNC   BASIN
809     KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
810     KM    L=       .7  Lca=       .3   S=   14.7  Kn= .092  LAG=  43.5
811     KM    AGRICULTURAL S-GRAPH WAS USED FOR THIS BASIN
812     BA   0.306
813     LG    0.47    0.25    5.30    0.35      51
814     UI      86     341     534     508     379     219     121      71      44      23
815     UI       9       8       8       9       8       0       0       0       0       0
816     UI       0       0       0       0       0       0       0       0       0       0
        *
```



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


817     KK    CPNC
818     KM        ADD HYDROGRAPHS AT NC.
819     HC       2
        *

820     KK  RTNCJE   ROUTE   REACH
821     KM        ROUTE FLOW FROM NC TO JE (SHEET FLOW).
822     KM        TYPE A CHANNEL
823     RS      12              -1       0
824     RC   0.035   0.035   0.035    5000  0.0014    0.00
825     RX     0.0   100.0   400.0   500.0   500.1   600.0   900.0  1000.0
826     RY     5.0     4.0     1.0     0.0     0.0     1.0     4.0     5.0
        *

827     KK  SUBJE1   BASIN
828     KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
829     KM    L=      1.1  Lca=       .6   S=   12.7  Kn= .090  LAG=  66.1
```

```
830           KM    AGRICULTURAL S-GRAPH WAS USED FOR THIS BASIN
831           BA   0.248
832           LG   0.10     0.25     5.40     0.32       55
833           UI    192      630      574      304      118       57       16       11       10        0
834           UI      0        0        0        0        0        0        0        0        0        0
              *

835           KK   CPJE1
836           KM   COMBINE FLOWS FROM NC AND JE1
837           HC        2
              *

838           KK  RTJEJD   ROUTE   REACH
839           KM        ROUTE FLOW FROM JE TO JD.
840           KM        FUTURE ARTERIAL SECTION
841           RS        3                -1        0
842           RC   0.100    0.023    0.100     2500   0.0080     0.00
843           RX     0.0      440      445    445.1    575.1    575.2      900   1000.0
844           RY     105      105      105    99.75    99.75      105      105      105
              *

845           KK   SUBJD   BASIN
846           KM   BASIN JD
847           KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
848           KM    L=       1.1  Lca=        .6    S=    12.7  Kn= .020  LAG=  14.7
849           KM    PHOENIX VALLEY S-GRAPH WAS USED FOR THIS BASIN
850           BA     .51
851           LG     .25      .17     8.00      .10    22.50
852           UI    211.     648.    1201.     988.     552.     203.      82.      36.       0.       0.
853           UI      0.       0.       0.       0.       0.       0.       0.       0.       0.       0.
              *
1                                              HEC-1 INPUT                                                   PAGE 24

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


854           KK   RETJD
855           KM   DIVERT REQUIRED DEVELPMENT RETENTION OUT OF MODEL
856           KM   80% OF REQUIRED MODELED
              * KO      3                               21
857           DT   RETJD    35.0
858           DI        0   10000
859           DQ        0   10000
              *

860           KK    CPJD
861           KM         ADD HYDROGRAPHS AT JD
862           HC        3
              *
              * KKSDDRJD
              * KM DIVERT STORM DRAIN FLOW
              * DT59SDJD
              * DI      0      207   10000
              * DQ      0      207     207
```

```
                *

 863            KK  DIJDJC
 864            KM        DIVERT 37% OF FLOW AT JD TO JC2.
 865            DT   DIJC2
 866            DI       0       25       50      100      150      200
 867            DQ       0        9       19       37       56       74
                *

 868            KK  RTJDFC   ROUTE   REACH
 869            KM        ROUTE FLOW FROM JD TO FC.
 870            KM        FUTURE ARTERIAL SECTION
 871            RS       1                -1        0
 872            RC   0.100    0.023    0.100     3000   0.0053     0.00
 873            RX     0.0      440      445    445.1    575.1    575.2      900   1000.0
 874            RY     105      105      105    99.75    99.75      105      105      105
                *

 875            KK  SUBJE2   BASIN
 876            KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 877            KM    L=      1.1  Lca=       .5    S=   19.8  Kn= .097  LAG=  63.6
 878            KM    AGRICULTURAL S-GRAPH WAS USED FOR THIS BASIN
 879            BA   0.253
 880            LG    0.12     0.13    10.10     0.05       44
 881            UI     109      427      539      421      225      108       59       33        9        8
 882            UI       8        9        0        0        0        0        0        0        0        0
 883            UI       0        0        0        0        0        0        0        0        0        0
                *

 884            KK  RETJE2
 885            KM   DIVERT RETENTION OUT OF MODEL DUE TO RIO DEL REY DEVELOPMENT. -DCF
 886            KM   TOTAL RETENTION IS 5.9 AF. 80% OF THAT IS USED HERE. -DCF
 887            DT   RETJE      4.7
 888            DI       0    10000
 889            DQ       0    10000
                *
```



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

 890            KK  RTJEFC   ROUTE   REACH
 891            KM        ROUTE FLOW FROM JE TO FC (SHEET FLOW).
 892            KM        TYPE A CHANNEL
 893            RS       4                -1        0
 894            RC   0.035    0.035    0.035     4000   0.0080     0.00
 895            RX     0.0    100.0    400.0    500.0    500.1    600.0    900.0   1000.0
 896            RY     5.0      4.0      1.0      0.0      0.0      1.0      4.0      5.0
                *

 897            KK   SUBFC   BASIN
 898            KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 899            KM    L=      1.0  Lca=       .4    S=   18.6  Kn= .097  LAG=  55.3
 900            KM    AGRICULTURAL S-GRAPH WAS USED FOR THIS BASIN
```

```
901            BA   0.357
902            LG    0.12    0.16    7.60    0.13      51
903            UI     101     397     624     592     442     256     140      84      50      28
904            UI      10       9      10      10      10       0       0       0       0       0
905            UI       0       0       0       0       0       0       0       0       0       0
               *

906            KK    CPFC
907            KM          ADD HYDROGRAPHS AT FC
908            HC       3
               *

909            KK  CPFCSR
910            KM   COMBINE HYDROGRAPHS INTO SALT RIVER AT FC
911            HC       2
               *
               * ****************************************************************************
               *
               *
               * ****************************************************************************
               *
               *

912            KK  DRUCUB
913            KM   RETURN DIVERT FROM UC
914            DR    DIUB
               *

915            KK  MCUCUB   ROUTE   REACH
916            KM   ADMP CHANNEL
917            KM   MASTER CHANNEL ROUTE FROM UC2 TO UB
918            KM   ROUTING RECORD ADDED, JEP 6/11/01
919            RS       1    FLOW      -1
920            RC   0.014   0.014   0.014    1287  0.0010    0.00
921            RX     0.0    16.0    16.0    16.0    51.0    51.0    51.0    67.0
922            RY     4.8     5.1     2.5     0.0     0.0     2.5     5.1     4.8
               *
               * KKRTUCUB
               * KM HEC-RAS REACH
               * KM      ROUTE FLOW FROM UC TO UB
               * KM      Channel geometry changed to match natural conditions 04.11.00  JEP
               * KM      Manning's N values changed to match approved values 04.11.00  JEP
               * RS     4              -1       0
               * RC 0.035   0.035   0.035    1400  0.0043    0.00
               * RX   0.0    20.0    35.0    50.0    50.1   250.0   450.0   550.0
               * RY   5.0     5.0     2.5     0.0     0.0     2.0     4.0     5.0
               *
               *
1                                      HEC-1 INPUT                                         PAGE 26

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

923            KK   SUBUB
```

```
924          KM   BASIN UB
925          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
926          KM    L=        .8  Lca=        .4    S=   16.2  Kn= .048  LAG=  26.9
927          KM    PHOENIX VALLEY S-GRAPH WAS USED FOR THIS BASIN
928          BA     .14
929          LG     .25     .14    8.80     .08   30.00
930          UI     18.     53.     91.    119.    176.    199.    143.    106.     76.     38.
931          UI     27.     18.      6.      5.      5.      5.      0.      0.      0.      0.
932          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
             *

933          KK  ~@CPUB
934          KM         ADD HYDROGRAPHS AT UB
935          HC       2    2.42
             *
             * KK71PASS
             * KM DIVERT LOW FLOW AROUND BASIN
             * DT71PASS
             * DI      0       0   10000
             * DQ      0       0       0
             *

936          KK  SUBSF1
937          KM   BASIN SF1
938          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
939          KM    L=        .5  Lca=        .3    S=    9.2  Kn= .100  LAG=  45.9
940          KM    AGRICULTURAL S-GRAPH WAS USED FOR THIS BASIN
941          BA     .13
942          LG     .50     .15    9.70     .07     .00
943          UI     10.     11.     24.     46.     58.     74.     81.     86.     86.     74.
944          UI     75.     62.     58.     42.     35.     30.     25.     18.     15.     13.
945          UI     10.      9.      7.      6.      6.      5.      1.      1.      1.      1.
946          UI      1.      1.      1.      1.      1.      1.      1.      1.      1.      1.
947          UI      1.      0.      0.      0.      0.      0.      0.      0.      0.      0.
948          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
             *

949          KK    DRTB
950          KM         RETURN DIVERT FROM UA
951          DR    DITB
             *

952          KK  RTDITB   ROUTE   REACH
953          KM         ROUTE DIVERT TO SF1 (REACH LENGTH SUBJECT TO CHANGED
954          KM         BASED ON BASIN 3 LOCATION)
955          KM         TYPE A CHANNEL
956          RS       8              -1       0
957          RC   0.025   0.025   0.025    1400  0.0019    0.00
958          RX     0.0   100.0   400.0   500.0   500.1   600.0   900.0  1000.0
959          RY     5.0     4.0     1.0     0.0     0.0     1.0     4.0     5.0
             *
```

```
960          KK   CPBA3
961          KM   COMBINE CPUB, SF1, DITB
962          HC        3
             *

963          KK  SUBTB2
964          KM   BASIN TB2
965          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
966          KM    L=      1.8  Lca=       .9   S=   10.3  Kn= .046  LAG=  50.5
967          KM    PHOENIX VALLEY S-GRAPH WAS USED FOR THIS BASIN
968          BA     .75
969          LG     .15     .15    8.80     .06   55.00
970          UI     50.     50.    127.    204.    251.    289.    334.    391.    512.    630.
971          UI    541.    450.    392.    333.    284.    242.    184.    119.     88.     82.
972          UI     59.     50.     36.     15.     15.     15.     15.     15.     15.     15.
973          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
             *

974          KK  RETTB
975          KM   DIVERT REQUIRED DEVELPMENT RETENTION OUT OF MODEL
976          KM   80% OF REQUIRED MODELED
977          DT   RETTB    19.6
978          DI       0  10000
979          DQ       0  10000
             *

980          KK  DITBTA
981          KM        DIVERT 25% OF FLOW TO TA
982          DT    DITA
983          DI       0      25      50      75     100     150     200
984          DQ       0       6      13      19      25      38      50
             *

985          KK  RTTBSF   ROUTE   REACH
986          KM   ROUTE FLOW FROM TB TO SF (ALONG 75TH AVENUE).
987          KM   TARGET CHANNEL
988          RS       4    ELEV   27.35       0
989          RC   0.030   0.030   0.030    2160  0.0010    0.00
990          RX     100   107.0   127.0   133.0   151.0   157.0   179.0   193.0
991          RY    32.5    32.0   27.35   27.35   27.35   27.35    32.0    32.5
             *

992          KK  SUSFB2
993          KM   BASIN SFB2
994          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
995          KM    L=       .5  Lca=       .3   S=    2.9  Kn= .020  LAG=  11.4
996          KM    PHOENIX VALLEY S-GRAPH WAS USED FOR THIS BASIN
997          BA     .11
998          LG     .15     .15    9.70     .07   50.00
999          UI     78.    231.    324.    153.     46.     13.      0.      0.      0.      0.
1000         UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
             *
```

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


 1001           KK  SUSF2A
 1002           KM   BASIN SF2A
 1003           KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 1004           KM    L=       .6  Lca=       .2   S=     5.9  Kn= .020  LAG=   9.2
 1005           KM    PHOENIX VALLEY S-GRAPH WAS USED FOR THIS BASIN
 1006           BA     .14
 1007           LG     .15     .15    9.70     .07   80.00
 1008           UI    154.    478.    336.     89.     19.      0.      0.      0.      0.      0.
 1009           UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
                *

 1010           KK  RSSF2A
 1011           KM   TARGET NORTH BASIN
 1012           KM   28.51 Acre Feet of Sorage Provided per Target Drainage Report
 1013           DT  RETSF2   28.51
 1014           DI       0   10000
 1015           DQ       0   10000
                *
                * KKRSSF2A
                * KM  TARGET NORTH RETENTION BASIN
                * RS     1    STOR       0       0
                * SA  5.57    6.03    6.50    6.98    6.56    8.03   12.56   20.42   28.51   37.
                * SE     0       1       2       3       4       5       6       7       8
                * SQ     0       0       0       0       0       0       0       0       0     3
                *

 1016           KK  CPSF2B
 1017           KM    COMBINE FLOW FROM TB1, SF2A AMD SF2B
 1018           HC       3
                *

 1019           KK   CPBA3
 1020           KM   Combine Target with regional basin
 1021           HC       2
                *

 1022           KK  BSN71
 1023           KM   PROPOSED DETENTION BASIN DRC #4
 1024           KM   INCLUDES TARGET SOUTH RETETNION BASIN AREA
 1025           RS       1    ELEV    1010
 1026           SV       0   0.001   0.001   10.40   15.34   53.24   74.82  118.92  163.57  349.40
 1027           SQ       0   18.38   45.77   52.41   55.24   73.97   78.64   86.98   90.38   96.00
 1028           SE    1010 1012.12    1015    1016 1016.47 1020.00    1021 1023.00    1024    1028
                *

 1029           KK  DBSN71
 1030           KM   DIVERT FLOWS FROM DETENTION BASIN DCR4 TO STORM DRAIN
 1031           DT   BSN71
 1032           DI       0   10000
```

```
1033          DQ       0   10000
              *
```



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


1034          KK  SUBPB
              * KO     3                             21
1035          KM   BASIN PB
1036          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1037          KM    L=      1.1  Lca=       .5   S=    5.3  Kn= .020  LAG=  16.9
1038          KM    PHOENIX VALLEY S-GRAPH WAS USED FOR THIS BASIN
1039          BA     .41
1040          LG     .25     .15    8.80     .06   55.00
1041          UI    123.    405.    671.    887.    553.    301.    126.     56.     25.     25.
1042          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
              *

1043          KK   RETPB
1044          KM   DIVERT REQUIRED DEVELPMENT RETENTION OUT OF MODEL
1045          KM   80% OF REQUIRED MODELED
              * KO     3                             21
1046          DT   RETPB    42.9
1047          DI       0   10000
1048          DQ       0   10000
              *

1049          KK   PB75
1050          KM   BASIN PB75 (ROADWAY DRAINAGE)
1051          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1052          KM    L=       .5  Lca=       .3   S=   12.0  Kn= .020  LAG=   8.1
1053          KM    PHOENIX VALLEY S-GRAPH WAS USED FOR THIS BASIN
1054          BA     .01
1055          LG     .15     .15    9.70     .04   80.00
1056          UI     14.     39.     19.      4.      0.      0.      0.      0.      0.      0.
1057          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
              *

1058          KK    PBBU
1059          KM   BASIN PBBU   (ROADWAY DRAINAGE)
1060          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1061          KM    L=      1.0  Lca=       .5   S=    6.0  Kn= .020  LAG=  15.8
1062          KM    PHOENIX VALLEY S-GRAPH WAS USED FOR THIS BASIN
1063          BA     .02
1064          LG     .15     .15    8.00     .07   80.00
1065          UI      7.     23.     42.     44.     26.     11.      5.      2.      1.      0.
1066          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
              *

1067          KK  CPBSD
              * KO     3                             21
1068          KM           COMBINE STREET DRAINAGE
1069          HC       2
```

```
                        *

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


1070            KK  DPBSD1
1071            KM   DIVERT STORM DRAIN FLOW (75TH AVENUE)
1072            DT  SD75PB
1073            DI       0      23   10000
1074            DQ       0      23      23
                *
                *

1075            KK  DPBSD2
1076            KM   DIVERT STORM DRAIN FLOW (BUCKEYE ROAD DRAINAGE)
1077            DT  SDBRPB
1078            DI       0      39   10000
1079            DQ       0      39      39
                *

1080            KK    CPPB
                * KO     3                              21
1081            KM        ADD HYDROGRAPHS AT PB
1082            HC       2
                *

1083            KK  DIPBPA
1084            KM        DIVERT 19% OF FLOW FROM PB TO PA(ADMP DIVERSION)
1085            DT   DIPA1
1086            DI       0      25      50      75     100     150     200     400     800   10000
1087            DQ       0       5      10      14      19      29      38      76     152    1900
                *

1088            KK   CPPB1
                * KO     3                              21
1089            KM        ADD HYDROGRAPHS AT PB
1090            HC       2
                *

1091            KK  RTPBNA   ROUTE   REACH
1092            KM        ROUTE FLOW FROM PB TO NA ALONG 75th AVE.
1093            KM        FUTURE ARTERIAL SECTION
                * KO     3                              21
1094            RS       4    ELEV      -1       0
1095            RC   0.100   0.023   0.100    5280  0.0032    0.00
1096            RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
1097            RY     105     105     105   99.75   99.75     105     105     105
                *

1098            KK  SUBNA
1099            KM   BASIN NA
1100            KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1101            KM    L=      2.0  Lca=      1.0   S=   10.5  Kn= .020  LAG=  24.0
```

```
1102          KM    PHOENIX VALLEY S-GRAPH WAS USED FOR THIS BASIN
1103          BA     .94
1104          LG     .25     .15    8.00     .08   51.00
1105          UI    132.    473.    742.   1029.   1568.   1184.    859.    588.    280.    184.
1106          UI    106.     40.     40.     40.      0.      0.      0.      0.      0.      0.
1107          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
              *
```



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


1108          KK   RETNA
1109          KM   DIVERT REQUIRED DEVELPMENT RETENTION OUT OF MODEL
1110          KM   80% OF REQUIRED MODELED
1111          DT   RETNA    89.6
1112          DI       0   10000
1113          DQ       0   10000
              *

1114          KK    NA75
1115          KM   BASIN NA75  (75 AVENUE ROADWAY DRAINAGE)
1116          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1117          KM    L=      1.0  Lca=       .5   S=   15.2  Kn= .020  LAG=  13.1
1118          KM    PHOENIX VALLEY S-GRAPH WAS USED FOR THIS BASIN
1119          BA     .02
1120          LG     .15     .15    7.60     .08   80.00
1121          UI     11.     32.     55.     35.     14.      5.      2.      0.      0.      0.
1122          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
              *

1123          KK    NALB
1124          KM   BASIN NALB  (LOWER BUCKEYE ROADWAY DRAINAGE)
1125          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1126          KM    L=      1.0  Lca=       .5   S=    6.0  Kn= .020  LAG=  15.8
1127          KM    PHOENIX VALLEY S-GRAPH WAS USED FOR THIS BASIN
1128          BA     .02
1129          LG     .15     .19    6.60     .12   80.00
1130          UI      7.     23.     42.     44.     26.     11.      5.      2.      1.      0.
1131          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
              *

1132          KK   CNASD
              * KO     3                             21
1133          KM    COMBINE STREET DRAINAGE
1134          HC       2
              *

1135          KK  CPNA1
1136          KM    COMBINE ROUTED FLOW FROM PB
1137          HC       3
              *
              *
```

```
1138          KK  DNASD1
1139          KM   DIVERT STORM DRAIN FLOW (75TH AVENUE)
1140          DT  SD75NA
1141          DI         0       40   10000
1142          DQ         0       40      40
              *
```



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

1143          KK  DNASD2
1144          KM   DIVERT STORM DRAIN FLOW (LOWER BUCKEYE)
1145          DT  SDLBNA
1146          DI         0       38   10000
1147          DQ         0       38      38
              *

1148          KK  DADMP1
1149          KM   DIVERT STREET FLOW TO ADMP CHANNEL
1150          DT   ADMP1
1151          DI         0      220   10000
1152          DQ         0      220   10000
              *

1153          KK  SUBJC1
1154          KM   BASIN JC1
1155          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1156          KM    L=       1.5  Lca=       1.0    S=    10.7  Kn= .020  LAG=  21.4
1157          KM    PHOENIX VALLEY S-GRAPH WAS USED FOR THIS BASIN
1158          BA      .47
1159          LG      .25      .15     7.00      .13    30.00
1160          UI      76.     304.     456.     712.     797.     538.     365.     173.     102.      52.
1161          UI      23.      23.       0.       0.       0.       0.       0.       0.       0.       0.
1162          UI       0.       0.       0.       0.       0.       0.       0.       0.       0.       0.
              *

1163          KK  RETJC1
              * KO      3                                  21
1164          KM   DIVERT REQUIRED DEVELPMENT RETENTION OUT OF MODEL
1165          KM   80% OF REQUIRED MODELED
1166          DT  RETJC1     35.5
1167          DI         0    10000
1168          DQ         0    10000
              *

1169          KK    JC75
1170          KM   BASIN JC75  (ROADWAY DRAINAGE)
1171          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1172          KM    L=       1.0  Lca=        .5    S=    13.0  Kn= .020  LAG=  13.6
1173          KM    PHOENIX VALLEY S-GRAPH WAS USED FOR THIS BASIN
1174          BA      .02
1175          LG      .15      .15     7.00      .10    80.00
1176          UI      10.      31.      56.      38.      18.       7.       2.       2.       0.       0.
```

```
1177          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
              *

1178          KK  CJCSD1
              * KO     3                             21
1179          KM         COMBINE STREET DRAINAGE AND RETETION OVERFLOW
1180          HC       2     .49
              *
```



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

1181          KK  SUBJC2
1182          KM   BASIN JC2
1183          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1184          KM    L=      1.5  Lca=      1.0   S=   11.3  Kn= .020  LAG=  21.2
1185          KM    PHOENIX VALLEY S-GRAPH WAS USED FOR THIS BASIN
1186          BA     .48
1187          LG     .25     .15    7.00     .13     .24
1188          UI     81.    317.    475.    753.    805.    544.    365.    165.    101.     49.
1189          UI     23.     23.      0.      0.      0.      0.      0.      0.      0.      0.
1190          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.
              *

1191          KK  RETJC2
              * KO     3                             21
1192          KM   DIVERT REQUIRED DEVELPMENT RETENTION OUT OF MODEL
1193          KM    140 ACRES OF EXISITING DEVELOPMENT NOT INCLUDED IN CALCULATIONS
1194          KM   80% OF REQUIRED MODELED
1195          DT  RETJC2     19.6
1196          DI       0   10000
1197          DQ       0   10000
              *

1198          KK  DETJC2
1199          KM   DIVERT PROPOSED RETENTION OUT OF MODEL FOR APPROXIMATELY 140 ACRES
1200          KM   OF EXISITING DEVELOPMENT THAT DOES NOT HAVE RETENTION
1201          KM   80% OF REQUIRED MODELED
1202          DT  DETJC2     16.6
1203          DI       0   10000
1204          DQ       0   10000
              *

1205          KK  RTJCJC   ROUTE   REACH
1206          KM         ROUTE FLOW FROM JC2 TO JC1 ALONG 75th AVE.
1207          KM         FUTURE ARTERIAL SECTION
              * KO     3                             21
1208          RS       2    ELEV      -1       0
1209          RC   0.100   0.023   0.100    2640  0.0021    0.00
1210          RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
1211          RY     105     105     105   99.75   99.75     105     105     105
              *
```

```
1212          KK  CPJC1A
1213          KM          COMBINE FLOW FROM JC2 WITH FLOW FROM JC3
1214          HC       2     .97
              *

1215          KK    JCBR
1216          KM   BASIN JCBR  (ROADWAY DRAINAGE)
1217          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1218          KM    L=      1.0  Lca=       .5   S=    11.0  Kn= .020  LAG=  14.0
1219          KM    PHOENIX VALLEY S-GRAPH WAS USED FOR THIS BASIN
1220          BA     .02
1221          LG     .15      .17    6.90      .11    80.00
1222          UI     10.      29.     53.      39.     20.       7.      3.      2.      0.      0.
```



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

1223          UI      0.       0.      0.       0.      0.       0.      0.      0.      0.      0.
              *

1224          KK  CJCSD2
              * KO     3                             21
1225          KM        COMBINE STREET DRAINAGE AND RETETION OVERFLOW
1226          HC       2
              *

1227          KK  CPJC1B
              * KO     3                             21
1228          KM        COMBINE JC1, JC2 AND STREET DRAINAGE
1229          HC       2   5.96
              *

1230          KK  DJC2SD
1231          KM   DIVERT OFFSITE TO STORM DRAIN FLOW (BROADWAY STORM DRAIN FLOW)
1232          DT  SDOSBR
1233          DI       0      41   10000
1234          DQ       0      41      41
              *

1235          KK  DJCSD1
1236          KM   DIVERT STORM DRAIN FLOW (75TH AVE. STORM DRAIN FLOW)
1237          DT  SD75JC
1238          DI       0      42   10000
1239          DQ       0      42      42
              *

1240          KK   DIJD
1241          KM   RETURN DIVERTED FLOW FROM BASIN SUBJD
1242          DR   DIJC2
              *

1243          KK  RTJCJC    ROUTE   REACH
1244          KM        ROUTE FLOW FROM JD TO JC1 ALONG 75th AVE.
1245          KM        FUTURE ARTERIAL SECTION
```

```
                * KO     3                              21
1246            RS       5    ELEV      -1       0
1247            RC   0.100   0.023   0.100    5280  0.0021    0.00
1248            RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
1249            RY     105     105     105   99.75   99.75     105     105     105
                *

1250            KK   CPJC2
                * KO     3                              21
1251            KM          COMBINE SPLIT FLOW FROM SUBJD WITH FLOW AT CPCJ1
1252            HC       2    8.11
                *
```



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


1253            KK  DIJCJB
1254            KM         DIVERT 46% OF FLOW AT JC TO JB.  (ADMP DIVERSION)
                * KO     3                              21
1255            DT   DIJB2
1256            DI       0      25      50      75     100     150     200    1346    2000
1257            DQ       0      12      23      35      46      69      92   605.7     920
                *

1258            KK  RTJCFB   ROUTE   REACH
1259            KM         ROUTE FLOW FROM JC1 TO FB ALONG 75th AVE.
1260            KM         FUTURE ARTERIAL SECTION
                * KO     3                              21
1261            RS       3    ELEV      -1       0
1262            RC   0.100   0.023   0.100    4200  0.0032    0.00
1263            RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
1264            RY     105     105     105   99.75   99.75     105     105     105
                *

1265            KK   DRB71
1266            KM   RETURN DIVERTED FLOW FROM BASIN DRC #4
1267            DR   BSN71
                *

1268            KK  RT71PB   ROUTE   REACH
1269            KM         ROUTE FLOW FROM BASIN TO PB ALONG 71th AVE AND
1270            KM         BUCKEYE RD.
1271            KM
1272            RT                       2
                *

1273            KK  RSDPB1
1274            KM   RETURN STORM DRAIN FLOW FROM PB
1275            DR  SD75PB
                *

1276            KK  CPPBS1
                * KO     3                              21
```

```
1277          KM    COMBINE STORM DRAIN FLOWS
1278          HC        2    3.99
              *

1279          KK  RSDPB2
1280          KM   RETURN STORM DRAIN FLOW FROM PB
1281          DR  SDBRPB
              *

1282          KK  CPPBS2
              * KO      3                              21
1283          KM    COMBINE STORM DRAIN FLOWS
1284          HC        2
              *
```



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


1285          KK  RTPBNA   ROUTE   REACH
1286          KM        ROUTE FLOW FROM PB TO NA IN STORM DRAIN
1287          KM
1288          RT                          2
              *

1289          KK  RSDNA1
1290          KM   RETURN DIVERTED STORM DRAIN FLOW FROM NA
1291          DR  SD75NA
              *

1292          KK  CPNAS1
              * KO      3                              21
1293          KM    COMBINE STORM DRAIN FLOWS
1294          HC        2    4.97
              *

1295          KK  RSDNA2
1296          KM   RETURN DIVERTED STORM DRAIN FLOW FROM NA
1297          DR  SDLBNA
              *

1298          KK  CPNAS2
              * KO      3                              21
1299          KM    COMBINE STORM DRAIN FLOWS
1300          HC        2
              *

1301          KK  RTNAJC   ROUTE   REACH
1302          KM        ROUTE FLOW FROM NA TO JC IN STORM DRAIN
1303          KM
1304          RT                          2
              *

1305          KK  RSDJC1
```

```
1306          KM   RETURN DIVERTED STORM DRAIN FLOW FROM JC (75TH AVENUE)
1307          DR  SD75JC
              *

1308          KK  CPJCS1
              * KO     3                             21
1309          KM    COMBINE STORM DRAIN FLOWS
1310          HC       2    5.96
              *
              * KKRSDJC2
              * KM RETURN DIVERTED STORM DRAIN FLOW FROM JC (BROADWAY ROAD)
              * DRSDBRJC
              *
```



```
1311          KK  RSDJC3
1312          KM   RETURN DIVERTED STORM DRAIN FLOW FROM JC1 and JC2
1313          DR  SDOSBR
              *
              * KKCPJCS2
              * KO     3                             21
              * KM  COMBINE STORM DRAIN FLOWS
              * HC     2    0.50
              *

1314          KK  CPJCS3
              * KO     3                             21
1315          KM    COMBINE STORM DRAIN FLOWS
1316          HC       2    5.96
              *

1317          KK  RTJCFB   ROUTE   REACH
1318          KM         ROUTE FLOW FROM JC TO FB ALONG 75th AVE.
1319          KM
1320          RT                      2
              *

1321          KK    FB75
1322          KM   BASIN FB75(ROADWAY DRAINAGE)
1323          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1324          KM    L=       .8  Lca=       .4   S=   10.7  Kn= .020  LAG=  12.4
1325          KM    PHOENIX VALLEY S-GRAPH WAS USED FOR THIS BASIN
1326          BA     .02
1327          LG     .15     .25    4.70     .25   80.00
1328          UI     11.     32.     52.     29.     10.      3.      2.      0.      0.      0.
1329          UI      0.      0.      0.      0.      0.      0.      0.      0.      0.      0.
              *

1330          KK    CPFB
              * KO     3                             21
1331          KM        ADD HYDROGRAPHS AT FB
```

```
1332          HC       2    5.98
              *
              * ADDED BY SLT MAR16,2005 TO ELIMINATE ERROR

1333          KK    DUMM
1334          KM        ELIMINATE UNNECESSARY HYDROGRAPHS
1335          HC       3
              *
              *
              * ADDED RETURNS TO ADD TO DDS FOR NEW STUDY  -  SLT  3/03/05
              *
              * KK  SLT1
              * KM      RETURN DIVERT FROM TB
              * DR  DITA
              * ZW A=DURANGO B=SLT1  C=FLOW  E=5MIN F=6-HR
              *
              * KK  SLT2
              * KM      RETURN DIVERT FROM ADMP1
              * DR ADMP1
              * ZW A=DURANGO B=SLT2  C=FLOW  E=5MIN  F=6-HR
              *
```



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


1336          KK   SUBSH   BASIN
1337          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1338          KM    L=       .4  Lca=       .2   S=   11.1  Kn= .030  LAG=  11.5
1339          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
1340          BA   0.103
1341          LG    0.15    0.16    9.70    0.07      55
1342          UI      72     211     303     147      44      13       8       0       0       0
1343          UI       0       0       0       0       0       0       0       0       0       0
              *

1344          KK   RETSH
1345          KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
1346          DT   RETSH    10.3
1347          DI       0   10000
1348          DQ       0   10000
              *

1349          KK    RSSH
1350          KM        MODIFIED PULS ROUTING BEHIND RID.
              * KO     1
1351          RS       1    STOR       0       0
1352          SV      19      21      24      30      37      44    46.4
1353          SE  1027.0  1027.1  1027.2  1027.5  1027.7  1028.0  1028.2
1354          SQ       0   138.6   475.2  1277.3
1355          SE  1027.0  1027.6  1027.8  1028.1
              *
              *
```

```
1356          KK  DISHRJ
1357          KM   DIVERT FLOW FROM SH TO RJ2
1358          DT   DIRJ2
1359          DI       0   138.6   475.2  1277.3
1360          DQ       0    88.6   375.2  1077.3
              *
              *

1361          KK  RTSHSG   ROUTE   REACH
1362          KM        ROUTE FLOW FROM SH TO SG
1363          KM        TYPE C CHANNEL
1364          RS       8              -1       0
1365          RC   0.035   0.035   0.035    2600  0.0008    0.00
1366          RX     0.0    20.0    35.0    50.0    50.1   250.0   450.0   550.0
1367          RY     5.0     5.0     2.5     0.0     0.0     2.0     4.0     5.0
              *

1368          KK   SUBTA   BASIN
1369          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1370          KM    L=       .8  Lca=       .4   S=   10.5  Kn= .03  LAG=  17.1
1371          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
1372          BA   0.241
1373          LG    0.15    0.15    7.00    0.18      55
1374          UI      71     234     382     523     328     186      76      35      15      14
1375          UI       3       0       0       0       0       0       0       0       0       0
1376          UI       0       0       0       0       0       0       0       0       0       0
              *
1                                           HEC-1 INPUT                                          PAGE 39

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


1377          KK   RETTA
1378          KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
1379          DT   RETTA    24.1
1380          DI       0   10000
1381          DQ       0   10000
              *

1382          KK    DRTA
1383          KM         RETURN DIVERT FROM TB
1384          KM         RETURN DIVERT FROM TB
1385          DR    DITA
              * BA     0
              * ZR  =QI A=DURANGO B=SLT1  C=FLOW  E=5MIN  F=6-HR
              *

1386          KK  RTDITA   ROUTE   REACH
1387          KM         ROUTE DIVERT TO TA
1388          KM         TYPE A CHANNEL
1389          RS       8              -1       0
1390          RC   0.025   0.025   0.024    2600  0.0004    0.00
1391          RX     0.0   100.0   400.0   500.0   500.1   600.0   900.0  1000.0
1392          RY     5.0     4.0     1.0     0.0     0.0     1.0     4.0     5.0
```

```
                   *

1393               KK   @CPTA
1394               KM        ADD HYDROGRAPHS AT TA
1395               HC        2    1.13
                   *

1396               KK  RTTASG   ROUTE   REACH
1397               KM        ROUTE FLOW FROM TA TO SG (SHEET FLOW).
1398               KM        TYPE A CHANNEL
1399               RS        2              -1       0
1400               RC   0.025   0.025   0.025    2200  0.0050    0.00
1401               RX     0.0   100.0   400.0   500.0   500.1   600.0   900.0  1000.0
1402               RY     5.0     4.0     1.0     0.0     0.0     1.0     4.0     5.0
                   *

1403               KK   SUBSG   BASIN
1404               KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1405               KM    L=       .6  Lca=       .3   S=     5.0  Kn= .03  LAG=  16.6
1406               KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
1407               BA   0.136
1408               LG    0.15    0.15    8.80    0.09      55
1409               UI      43     139     233     294     180      92      40      16       8       8
1410               UI       0       0       0       0       0       0       0       0       0       0
                   *

1411               KK   RETSG
1412               KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
1413               DT   RETSG    13.6
1414               DI       0   10000
1415               DQ       0   10000
                   *
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LINE               ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


1416               KK    CPSG
1417               KM        ADD HYDROGRAPHS AT SG
1418               HC        3
                   *

1419               KK    RSSG
1420               KM        MODIFIED PULS ROUTING BEHIND RID AND 81ST AVENUE
                   * KO      1
1421               RS        1    STOR       0       0
1422               SV    12.3    13.3    14.9    16.5    18.4    22.4    25.9    35.2
1423               SE  1026.4  1026.6  1026.8  1027.0  1027.2  1027.4  1027.6  1027.9
1424               SQ       0       9     114     525    1221    2143    3276    5343
                   *

1425               KK  DISGRJ
1426               KM        DIVERT FLOW FROM SG TO RJ
1427               DT   DIRJ4
```

```
1428           DI       0       9     114     525    1221
1429           DQ       0       1      70     400     964
               *

1430           KK  RTSGSE   ROUTE   REACH
1431           KM        ROUTE FLOW FROM SG TO SE
1432           KM        TYPE C CHANNEL
1433           RS       2              -1       0
1434           RC   0.035   0.035   0.035    1200  0.0030    0.00
1435           RX     0.0    20.0    35.0    50.0    50.1   250.0   450.0   550.0
1436           RY     5.0     5.0     2.5     0.0     0.0     2.0     4.0     5.0
               *

1437           KK   SUBSC   BASIN
1438           KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1439           KM    L=       1.3  Lca=       .7    S=    15.2  Kn= .029  LAG=  23.9
1440           KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
1441           BA   0.453
1442           LG    0.14    0.26    5.00    0.39      58
1443           UI      64     229     360     500     758     569     409     284     133      88
1444           UI      50      19      20      20       6       0       0       0       0       0
1445           UI       0       0       0       0       0       0       0       0       0       0
               *

1446           KK   RETSC
1447           KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
1448           DT   RETSC    45.4
1449           DI       0   10000
1450           DQ       0   10000
               *

1451           KK  DISCSD
1452           KM        DIVERT 54% OF FLOW AT SC TO SD.
1453           DT    DISD
1454           DI       0      25      50     100     150     200
1455           DQ       0      14      27      54      81     108
               *
```



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

1456           KK  RTSCSE   ROUTE   REACH
1457           KM        ROUTE FLOW FROM SC TO SE (ALONG 83RD AVENUE).
1458           KM        FUTURE ARTERIAL SECTION
1459           RS       1              -1       0
1460           RC   0.100   0.023   0.100    1000  0.0022    0.00
1461           RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
1462           RY     105     105     105   99.75   99.75     105     105     105
               *

1463           KK   SUBSE   BASIN
1464           KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1465           KM    L=        .3  Lca=       .2    S=    26.5  Kn= .03  LAG=   7.8
```

```
1466          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
1467          BA   0.125
1468          LG    0.15    0.25    4.80    0.39      55
1469          UI     185     511     220      40      11       0       0       0       0       0
1470          UI       0       0       0       0       0       0       0       0       0       0
              *

1471          KK   RETSE
1472          KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
1473          DT   RETSE    12.5
1474          DI       0   10000
1475          DQ       0   10000
              *

1476          KK    CPSE
1477          KM        ADD HYDROGRAPHS AT SE
1478          HC       3
              *

1479          KK    RSSE
1480          KM        MODIFIED PULS ROUTING AT SE BEHIND THE RID CANAL
              * KO     1
1481          RS       1    STOR       0       0
1482          SV    13.5    14.8    17.6    20.5
1483          SE  1025.9  1026.0  1026.5  1026.9
1484          SQ    3.14    14.3  479.44 2013.01
              *

1485          KK  DISERJ
1486          KM   DIVERT FLOW FROM SE TO RJ
1487          DT   DIRJ5
1488          DI       0       3     142    1100
1489          DQ       0       3     142    1100
              *

1490          KK  RTSERI   ROUTE   REACH
1491          KM        ROUTE FLOW FROM SE TO RI
1492          KM        TYPE A CHANNEL
1493          RS       4              -1       0
1494          RC   0.035   0.035   0.035    2000  0.0019    0.00
1495          RX     0.0   100.0   400.0   500.0   500.1   600.0   900.0  1000.0
1496          RY     5.0     4.0     1.0     0.0     0.0     1.0     4.0     5.0
              *
```



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

1497          KK   SUBRJ   BASIN
1498          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1499          KM    L=        .7  Lca=       .4   S=    5.6  Kn= .03  LAG=  19.8
1500          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
1501          BA   0.163
1502          LG    0.15    0.15    7.00    0.18      55
```

```
1503           UI      33     122     184     307     254     170      98      46      25       8
1504           UI       9       7       0       0       0       0       0       0       0       0
1505           UI       0       0       0       0       0       0       0       0       0       0
               *

1506           KK   RETRJ
1507           KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
1508           DT   RETRJ    16.3
1509           DI       0   10000
1510           DQ       0   10000
               *

1511           KK   CPRJ2
1512           KM        RETURN DIVERSION FROM SH
1513           DR   DIRJ2
               *

1514           KK  RTSHRJ   ROUTE   REACH
1515           KM        ROUTE HYDROGRAPH FROM SH TO RJ2
1516           KM        TYPE C CHANNEL
1517           RS       7              -1       0
1518           RC   0.050   0.050   0.050    2000  0.0015    0.00
1519           RX     0.0    20.0    35.0    50.0    50.1   250.0   450.0   550.0
1520           RY     5.0     5.0     2.5     0.0     0.0     2.0     4.0     5.0
               *

1521           KK  RTRJ3    ROUTE   REACH
1522           KM        ROUTE HYDROGRAPH FROM RJ3 TO RJ
1523           KM        TYPE C CHANNEL
1524           RS       8              -1       0
1525           RC   0.035   0.035   0.035    3900  0.0015    0.00
1526           RX     0.0    20.0    35.0    50.0    50.1   250.0   450.0   550.0
1527           RY     5.0     5.0     2.5     0.0     0.0     2.0     4.0     5.0
               *

1528           KK  CPRJ4A
1529           KM        RETURN DIVERT FROM SG
1530           DR   DIRJ4
               *

1531           KK  CPRJ4B
1532           KM        COMBINE HYDROGRAPHS AT RJ4
1533           HC       2     .39
               *
               *
```



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

1534           KK  RTSGRJ   ROUTE   REACH
1535           KM        ROUTE DIVERT FROM SG TO RJ
1536           KM        TYPE C CHANNEL
1537           RS       3              -1       0
```

```
1538           RC   0.035   0.035   0.035    1400  0.0019    0.00
1539           RX     0.0    20.0    35.0    50.0    50.1   250.0   450.0   550.0
1540           RY     5.0     5.0     2.5     0.0     0.0     2.0     4.0     5.0
               *

1541           KK   CPRJ5
1542           KM        RETURN DIVERT FROM SE
1543           DR   DIRJ5
               *

1544           KK  RTSERJ   ROUTE   REACH
1545           KM        ROUTE DIVERT FROM SE TO RJ
1546           KM        TYPE C CHANNEL
1547           RS       9              -1       0
1548           RC   0.035   0.035   0.035    1000  0.0001    0.00
1549           RX     0.0    20.0    35.0    50.0    50.1   250.0   450.0   550.0
1550           RY     5.0     5.0     2.5     0.0     0.0     2.0     4.0     5.0
               *

1551           KK  @CPRJ6
1552           KM        ADD HYDROGRAPHS AT RJ
1553           HC       3    3.81
               *

1554           KK    RSRJ
1555           KM        RESERVOIR ROUTING AT RJ BEHIND 83RD AVE AND THE SPRR
               * KO     1
1556           RS       1    STOR       0       0
1557           SV     3.5     6.2    11.0    18.4    30.9    52.2    76.3
1558           SE  1022.1  1022.5  1023.0  1023.5  1024.0  1024.5  1024.9
1559           SQ       0      50     100     506     899    1369
1560           SE  1022.1  1022.7  1022.9  1023.7  1024.0  1024.2
               *

1561           KK  DIRJPA
1562           KM   DIVERT FLOW OVER SPRR FROM RJ TO PA
1563           DT   DIPA2
1564           DI       0      50     100     506     899    1369
1565           DQ       0       0       0       6     149     369
               *

1566           KK  RTRJRI   ROUTE   REACH
1567           KM        ROUTE FLOW FROM RJ TO RI1
1568           KM        TYPE C CHANNEL
1569           RS       5              -1       0
1570           RC   0.035   0.035   0.035    2600  0.0019    0.00
1571           RX     0.0    20.0    35.0    50.0    50.1   250.0   450.0   550.0
1572           RY     5.0     5.0     2.5     0.0     0.0     2.0     4.0     5.0
               *
               * THE FOLLOWING DIVERT REMOVED TO MODEL THE ADMP CONDITION
               * KKDIRIOE
               * KM DIVERT FLOW FROM RI TO OE OVER SPRR.
               * KM 1/4 MILE WEST OF 83RD AVE.
               * DT DIOE3
```

```
                * DI   100      400     1392     1300     1400
                * DQ     0       55      370      680      730
                *
1                                            HEC-1 INPUT                                          PAGE 44

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


1573            KK  RTRIRI
1574            KM   TYPE C CHANNEL
1575            RS       4               -1        0
1576            RC    .035     .035     .035     1550    .0019
1577            RX       0       20       35       50     50.1      250      450      550
1578            RY       5        5      2.5        0        0        2        4        5
                *

1579            KK   SUBRI   BASIN
1580            KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1581            KM    L=        .6  Lca=        .2   S=   19.3  Kn= .03  LAG=  10.6
1582            KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
1583            BA   0.232
1584            LG    0.15     0.15     7.60     0.14       55
1585            UI     193      596      651      255       72       23        7        0        0        0
1586            UI       0        0        0        0        0        0        0        0        0        0
                *

1587            KK   RETRI
1588            KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
1589            DT   RETRI     23.2
1590            DI       0    10000
1591            DQ       0    10000
                *

1592            KK   SUBSB   BASIN
1593            KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1594            KM    L=        .5  Lca=        .3   S=   15.1  Kn= .03   LAG=  12.3
1595            KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
1596            BA   0.168
1597            LG    0.15     0.15     9.70     0.07       55
1598            UI     102      299      486      271       95       30       14        5        0        0
1599            UI       0        0        0        0        0        0        0        0        0        0
                *

1600            KK   RETSB
1601            KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
1602            DT   RETSB     16.8
1603            DI       0    10000
1604            DQ       0    10000
                *

1605            KK    RSSB
1606            KM         MODIFIED PULS ROUTING THROUGH PONDING  BEHIND RID CANAL.
                * KO      1
1607            RS       1     STOR        0        0
```

```
1608          SV      2.2     5.6    11.9    21.4    33.8
1609          SE   1024.0  1024.5  1025.0  1025.5  1025.9
1610          SQ        0      94     581    2114    4864
              *
```


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


1611          KK   SUBSD   BASIN
1612          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1613          KM    L=       .6  Lca=       .3   S=   12.3  Kn= .03  LAG=  14.4
1614          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
1615          BA   0.168
1616          LG    0.15    0.28    6.60    0.18      55
1617          UI      73     222     410     319     173      61      24      12       7       0
1618          UI       0       0       0       0       0       0       0       0       0       0
              *

1619          KK   RETSD
1620          KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
1621          DT   RETSD    16.8
1622          DI       0   10000
1623          DQ       0   10000
              *

1624          KK    DRSD
1625          KM    RETURN DIVERT FROM SC.
1626          DR    DISD
              *

1627          KK   @CPSD
1628          KM        ADD HYDROGRAPHS AT SD.
1629          KM        ROUTING STEP NOT INCLUDED DUE TO SHORT ROUTING LENGTH
1630          HC       3     .79
              *

1631          KK    RSSD
1632          KM        MODIFIED PULS ROUTING BEHIND CANAL, NORTH OF VAN BUREN.
              * KO     1
1633          RS       1    STOR       0       0
1634          SV       0     .01      .1      .6     1.8       5       9      14      23
1635          SE  1021.4  1022.8    1023  1023.3  1023.6    1024  1024.3  1024.6    1025
1636          SQ       0     .16      46     534     939    1427    1993    2767
1637          SE  1021.4  1021.5    1022    1023  1023.5    1024  1024.5    1025
              *

1638          KK  RTSDRI   ROUTE   REACH
1639          KM        ROUTE FLOW FROM SD TO RI
1640          KM        TYPE A CHANNEL
1641          RS       3              -1       0
1642          RC   0.035   0.035   0.035    2400  0.0046    0.00
1643          RX     0.0   100.0   400.0   500.0   500.1   600.0   900.0  1000.0
1644          RY     5.0     4.0     1.0     0.0     0.0     1.0     4.0     5.0
```

```
                 *

1645             KK  ~@CPRI
1646             KM   ADD HYDROGRAPHS AT RI (1/2 MILE WEST OF 83RD AVE)
1647             HC       4    4.38
                 *
                 * THE FOLLWOING PONDING REMOVED TO MODEL THE ADMP CONDITION
                 * KK  RSRI
                 * KM      MODIFIED PULS ROUTING BEHIND SPRR.
                 * KO      1
                 * RS      1    STOR      -1       0
                 * SV      0       0      .1      .3     1.2     3.0     6.5   13.76    21.8     35
                 * SE1014.0 1014.1  1014.5  1015.0  1015.5  1016.0  1016.5  1017.0  1017.5   1018
                 * SQ      0       4     142     573    1333    3217    5957    9319   13343    182
                 *
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LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


1648             KK  MCRIRH   ROUTE   REACH
1649             KM   ADMP CHANNEL
1650             KM   ROUTE FLOW FROM RI TO RH
1651             RS       3    FLOW      -1
1652             RC   0.040   0.040   0.040    2482  0.0015    0.00
1653             RX     0.0    16.0    33.7    51.3    71.3    89.0   106.7   122.7
1654             RY     5.6     5.9     3.0     0.0     0.0     3.0     5.9     5.6
                 *
                 * ******************************************************************************
                 *

1655             KK   SUBPA   BASIN
1656             KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1657             KM    L=      1.1  Lca=       .6   S=   16.7  Kn= .03   LAG=  21.5
1658             KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
1659             BA   0.477
1660             LG    0.15    0.17    7.30    0.14      55
1661             UI      76     307     461     716     812     547     372     178     105      54
1662             UI      23      23      19       0       0       0       0       0       0       0
1663             UI       0       0       0       0       0       0       0       0       0       0
                 *

1664             KK   RETPA
1665             KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
1666             DT   RETPA    47.8
1667             DI       0   10000
1668             DQ       0   10000
                 *

1669             KK   DRPA2
1670             KM   RETURN DIVERT FROM RJ.
1671             DR   DIPA2
                 *
```

```
1672           KK  RTRJPA   ROUTE   REACH
1673           KM        ROUTE DIVERT FROM RJ TO PA
1674           KM        FUTURE ARTERIAL SECTION
1675           RS       2                -1       0
1676           RC   0.100   0.023   0.100    2400  0.0054    0.00
1677           RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
1678           RY     105     105     105   99.75   99.75     105     105     105
               *

1679           KK    CPPA
1680           KM   ADD HYDROGRAPHS AT PA
1681           HC       2
               *

1682           KK  DIPAOE
1683           KM        DIVERT 18% OF FLOW AT PA TO OE.
1684           DT    DIOE
1685           DI       0      25      50      75     100     150     200
1686           DQ       0       5       9      14      18      27      36
               *
```



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

1687           KK  RTPAMH   ROUTE   REACH
1688           KM        ROUTE FLOW FROM PA TO MH (ALONG 83RD AVENUE).
1689           KM        FUTURE ARTERIAL SECTION
1690           RS       2                -1       0
1691           RC   0.100   0.023   0.100    2640  0.0012    0.00
1692           RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
1693           RY     105     105     105   99.75   99.75     105     105     105
               *

1694           KK   SUBMH   BASIN
1695           KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1696           KM    L=       .7  Lca=       .3   S=    8.8  Kn= .05  LAG=  19.7
1697           KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
1698           BA   0.239
1699           LG    0.25    0.15    8.80    0.09      30
1700           UI      49     179     272     452     372     249     141      66      36      13
1701           UI      12      10       0       0       0       0       0       0       0       0
               *

1702           KK   RETMH
1703           KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
1704           DT   RETMH    19.8
1705           DI       0   10000
1706           DQ       0   10000
               *

1707           KK    CPMH
1708           KM    ADD HYDROGRAPHS AT MH
1709           HC       2
```

```
                 *

1710             KK  RTMHMD   ROUTE   REACH
1711             KM        ROUTE FLOW FROM PA TO MD (ALONG 83RD AVENUE).
1712             KM        FUTURE ARTERIAL SECTION
1713             RS       2             -1       0
1714             RC   0.100   0.023   0.100    2640  0.0012    0.00
1715             RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
1716             RY     105     105     105   99.75   99.75     105     105     105
                 *

1717             KK   SUBMD   BASIN
1718             KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1719             KM    L=      1.4  Lca=       .6   S=   14.3  Kn= .05  LAG=  41.7
1720             KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
1721             BA   0.255
1722             LG    0.25    0.08    7.60    0.11      30
1723             UI      21      24      73     100     119     142     175     247     234     185
1724             UI     156     127     106      80      47      35      30      21      15       6
1725             UI       6       6       6       6       6       0       0       0       0       0
                 *
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LINE             ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


1726             KK   RETMD
1727             KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
1728             DT   RETMD    21.1
1729             DI       0   10000
1730             DQ       0   10000
                 *

1731             KK    CPMD
1732             KM        ADD HYDROGRAPHS AT MD
1733             HC       2
                 *

1734             KK  DIMDJB
1735             KM        DIVERT 21% OF FLOW FROM MD TO JB.
1736             DT   DIJB1
1737             DI       0      25      50      75     100     150     200
1738             DQ       0       5      10      16      21      32      42
                 *

1739             KK  DIMDMF
1740             KM   DIVERT FLOW FROM MD TO MF
1741             KM   DUMMY DIVERT TO ROUTE FLOW AROUND CODE SEQUENCE.
1742             DT   DIMFX
1743             DI       0   10000
1744             DQ       0   10000
                 *

1745             KK   SUBMI   BASIN
```

```
1746          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1747          KM    L=        .7  Lca=       .3   S=    8.8  Kn= .043  LAG=  16.9
1748          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
1749          BA   0.409
1750          LG    0.21    0.15    8.40    0.11      38
1751          UI     122     402     662     886     553     306     126      57      25      25
1752          UI       3       0       0       0       0       0       0       0       0       0
              *

1753          KK   RETMI
1754          KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
1755          DT   RETMI    35.3
1756          DI       0   10000
1757          DQ       0   10000
              *

1758          KK   SUBMG   BASIN
1759          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1760          KM    L=        .7  Lca=       .3   S=    8.8  Kn= .04   LAG=  11.7
1761          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
1762          BA   0.082
1763          LG    0.20    0.15    7.00    0.17      43
1764          UI      55     162     241     120      37      11       7       0       0       0
              *
```



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

1765          KK   RETMG
1766          KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
1767          DT   RETMG     7.3
1768          DI       0   10000
1769          DQ       0   10000
              *

1770          KK    CPMG
1771          KM   COMBINE FLOWS FROM MI AND MG.
1772          HC       2
              *

1773          KK  RTMGJB   ROUTE   REACH
1774          KM        ROUTE FLOW FROM MG TO JB1 (ACROSS SUB JB1).
1775          KM        TYPE B    CHANNEL
1776          KM        ROUTE ADDED, JEP 5/10/01
1777          RS       9              -1       0
1778          RC   0.035   0.035   0.035    5050  0.0024    0.00
1779          RX     0.0   100.0   400.0   500.0   500.1   600.0   900.0  1000.0
1780          RY     5.0     4.0     1.0     0.0     0.0     1.0     4.0     5.0
              *
              * KK~CNAMG
              * KM COMBINE FLOWS FROM NA AND MG INTO ADMP CHANNEL
              * HC     3
              *
```

```
                    * KKMCMGJB   ROUTE   REACH
                    * KM ADMP CHANNEL
                    * RS      3     FLOW       -1
                    * RC 0.040    0.040    0.040     4374  0.0029     0.00
                    * RX    0.0     16.0     33.9     51.9     86.9    104.8    122.8    138.8
                    * RY    5.7      6.0      3.0      0.0      0.0      3.0      6.0      5.7
                    *

 1781               KK  SUBJB1   BASIN
 1782               KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 1783               KM    L=       1.3  Lca=        .7   S=   17.4  Kn= .050  LAG=  39.7
 1784               KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
 1785               BA   0.494
 1786               LG    0.25     0.25     5.00     0.41       30
 1787               UI      42       58      157      209      250      303      397      524      425      348
 1788               UI     286      233      186      117       73       67       42       35       13       13
 1789               UI      13       13       13        9        0        0        0        0        0        0
                    *

 1790               KK  RETJB1
 1791               KM   RETENTION MODIFIED FROM 80% REQUIRED TO FIRST FLUSH FOR DETENTION BASIN ROUTI
 1792               KM   DIVERT 80% OF FIRST FLUSH 1/2" RETENTION OUT OF MODEL - JCS
 1793               DT  RETJB1     10.5
 1794               DI       0    10000
 1795               DQ       0    10000
                    *
```



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


 1796               KK    DRJB
 1797               KM   RETURN DIVERT FROM MD
 1798               DR   DIJB1
                    *

 1799               KK  RDIJB1
 1800               KM   ROUTE DIVERT FROM MD TO JB
 1801               KM   FUTURE ARTERIAL SECTION
 1802               RS       4                -1        0
 1803               RC      .1    0.023       .1     2640    .0030
 1804               RX     0.0      440      445    445.1    575.1    575.2      900   1000.0
 1805               RY     105      105      105    99.75    99.75      105      105      105
                    *

 1806               KK   ADMP1
 1807               KM   RETURN DIVERT FROM 75TH SD MODEL  - SLT 3/9/2005
 1808               KM        RETURN DIVERT FROM ADMP1
 1809               DR   ADMP1
                    * BA      0
                    * ZR   =QI A=DURANGO B=SLT2  C=FLOW  E=5MIN
                    *

 1810               KK  MCJCJB
```

```
1811          KM   ROUTE      REACH
1812          KM   MASTER CHANNEL ROUTE FROM JC1 TO JB1
1813          KM   ASSUME FLOW OVER RETENTION BASINS AS IS CURRENT DEVELOPED CONDITION
1814          RS        6    FLOW      -1
1815          RC   0.040   0.040   0.040    5964  0.0015    0.00
1816          RX     0.0       0       0       0     250     250     250     250
1817          RY      10       0       0       0     0.0       0       0      10
              *

1818          KK  ~CPJB1
1819          KM   COMBINE FLOWS FROM MD, JC1, MG AND JB1 INTO ADMP CHANNEL
1820          KM   COMBINE ADDED, JEP 5/10/01
1821          HC        5    9.37
              *

1822          KK   RRJB1
1823          KM   MODIFIED PULS ROUTING
1824          KM   DETENTION IN DRCC RIGHT OF WAY AT JB1 (83RD AVENUE) POL
1825          KM   BASIN 6 FEET DEEP, 850 FEET LONG 165 FOOT BOTTOM 250 FOOT TOP
1826          KM   ASSUME 1 FOOT WEIR OVER THE ROAD
1827          KM   CULVERT IS 1 CELL 4 BY 8
1828          RS        1    STOR       0       0
1829          SV        0     3.4    24.2    29.1
1830          SQ        0      18     308    1094
              *
```



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

1831          KK    DIED
1832          KM   DIVERT FLOWS AT JB TO ED.  THIS IS DONE TO ROUTE FLOW AS NEEDED
1833          KM   FOR THE ADMP
1834          DT    DIED
1835          DI        0   10000
1836          DQ        0   10000
              *
              *
              *

1837          KK   SUBOE   BASIN
1838          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1839          KM    L=      1.1  Lca=       .6   S=   17.3  Kn= .03  LAG=  20.8
1840          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
1841          BA   0.469
1842          LG    0.15    0.23    6.20    0.24      55
1843          UI      84     321     482     784     767     519     338     150      92      38
1844          UI      23      23      10       0       0       0       0       0       0       0
1845          UI       0       0       0       0       0       0       0       0       0       0
              *

1846          KK   RETOE
1847          KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
1848          DT   RETOE    47.0
```

```
1849          DI        0   10000
1850          DQ        0   10000
              *
              * REMOVED BY JCS
              * KK RETOE
              * KM DIVERT RETENTION OUT OF MODEL DUE TO WILLAMETTE IND. DEVELOPMENT. -DCF
              * KM TOTAL RETENTION IS 5.3 AF. 80% OF THAT IS USED HERE. -DCF
              * DT RETOE      4.2
              * DI      0   10000
              * DQ      0   10000
              *

1851          KK   CPOE1
1852          KM   RETURN DIVERT FROM PA.
1853          DR    DIOE
              *

1854          KK  RTDIOE   ROUTE   REACH
1855          KM   ROUTE DIVERT FROM PA TO OE
1856          KM   FUTURE ARTERIAL SECTION
1857          RS        7               -1        0
1858          RC   0.100   0.023   0.100     5000  0.0013    0.00
1859          RX     0.0     440     445    445.1   575.1   575.2     900  1000.0
1860          RY     105     105     105    99.75   99.75     105     105     105
              *
              * THE FOLLOWING RETURNS REMOVED TO MODEL THE ADMP CONDITION.
              * KK CPOE2
              * KM RETURN DIVERT FROM RH
              * DR DIOE2
              *
              * KK CPOE3
              * KM RETURN DIVERT FROM RI
              * DR DIOE3
              *
```



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

1861          KK   @CPOE
1862          KM        ADD HYDROGRAPHS AT OE
1863          HC        2     .47
              *

1864          KK  DIOEOD
1865          KM   DIVERT 17% OF FLOW FROM OE2 TO OD
1866          DT    DIOD
1867          DI        0      25      50      75     100     150     200
1868          DQ        0       4       9      12      17      26      34
              *

1869          KK  RTOEMF   ROUTE   REACH
1870          KM   ROUTE FLOW FROM OE TO MF.
1871          KM   FUTURE ARTERIAL SECTION
```

```
1872          RS       4              -1        0
1873          RC   0.100    0.023   0.100     5200  0.0021     0.00
1874          RX     0.0      440     445    445.1   575.1    575.2      900   1000.0
1875          RY     105      105     105    99.75   99.75      105      105      105
              *

1876          KK   SUBMF    BASIN
1877          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1878          KM    L=        1.4  Lca=        .7   S=    12.9  Kn= .050  LAG=   44.0
1879          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
1880          BA   0.971
1881          LG    0.25     0.15    8.40     0.10      30
1882          UI      74       74     256      341     414      483      581      777      936      739
1883          UI     619      520     429      362     256      153      125      105       74       56
1884          UI      23       23      23       22      22       22        6        0        0        0
              *

1885          KK   RETMF
1886          KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
1887          DT   RETMF     80.3
1888          DI       0    10000
1889          DQ       0    10000
              *

1890          KK    CPMF
1891          KM        RETURN ROUTING DIVERT FROM MD (DIMFX).
1892          DR   DIMFX
              *
              *

1893          KK  RTMDMF    ROUTE   REACH
1894          KM        ROUTE FLOW FROM MD TO MF (ALONG LOWER BUCKEYE ROAD).
1895          KM        FUTURE ARTERIAL SECTION
1896          RS       6              -1        0
1897          RC   0.100    0.023   0.100     5200  0.0015     0.00
1898          RX     0.0      440     445    445.1   575.1    575.2      900   1000.0
1899          RY     105      105     105    99.75   99.75      105      105      105
              *
              *
1                                              HEC-1 INPUT                                    PAGE 53

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


1900          KK   CPMF1
1901          KM        ADD HYDROGRAPHS AT MF
1902          HC       3
              *

1903          KK  DIMFEB
1904          KM        DIVERT 47% OF FLOW AT MF TO EB.
1905          DT    DIEB
1906          DI       0       25      50       75     100      150      200
1907          DQ       0       12      23       35      47       71       94
```

```
                         *

1908                     KK  RTMFMC   ROUTE   REACH
1909                     KM        ROUTE FLOW FROM MF TO MC (ALONG LOWER BUCKEYE ROAD).
1910                     KM        FUTURE ARTERIAL SECTION
1911                     RS       5              -1       0
1912                     RC   0.100   0.023   0.100    5200  0.0015    0.00
1913                     RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
1914                     RY     105     105     105   99.75   99.75     105     105     105
                         *

1915                     KK   SUBOD   BASIN
1916                     KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1917                     KM    L=       1.1  Lca=       .6   S=    18.2  Kn= .030  LAG=   20.6
1918                     KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
1919                     BA   0.509
1920                     LG    0.15    0.15    9.70    0.07      55
1921                     UI      94     354     533     874     825     556     357     157      97      37
1922                     UI      25      26       7       0       0       0       0       0       0       0
1923                     UI       0       0       0       0       0       0       0       0       0       0
                         *

1924                     KK   RETOD
1925                     KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
1926                     DT   RETOD    63.7
1927                     DI       0   10000
1928                     DQ       0   10000
                         *

1929                     KK    DROD
1930                     KM    RETURN DIVERT FROM OE.
1931                     DR    DIOD
                         *

1932                     KK  RTDIOD  ROUTE   REACH
1933                     KM   FUTURE ARTERIAL SECTION
1934                     RS       4              -1       0
1935                     RC   0.100   0.023   0.100    2700  0.0013    0.00
1936                     RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
1937                     RY     105     105     105   99.75   99.75     105     105     105
                         *
                         * THE FOLLOWING RETURNS REMOVED TO MODEL THE ADMP CONDITION
                         * KK DROD2
                         * KM  RETURN DIVERT FROM OG1
                         * DR DIOD1
                         *
                         * KK DROD3
                         * KM      RETURN DIVERT FROM OG2.
                         * DR DIOD2
                         *
```

```
1938            KK    CPOD
1939            KM   ADD HYDROGRAPHS AT OD.
1940            HC       2
                *

1941            KK  DIODOC
1942            KM        DIVERT 18% OF FLOW FROM OD TO OC.
1943            DT    DIOC
1944            DI       0      25      50      75     100     150     200
1945            DQ       0       5       9      14      18      27      36
                *

1946            KK  RTODMC   ROUTE   REACH
1947            KM   ROUTE FLOW FROM OD TO MC.
1948            KM   FUTURE ARTERIAL SECTION
1949            RS       5              -1       0
1950            RC   0.100   0.023   0.100    5200  0.0023    0.00
1951            RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
1952            RY     105     105     105   99.75   99.75     105     105     105
                *

1953            KK   SUBMC   BASIN
1954            KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
1955            KM    L=      1.4  Lca=       .7   S=    13.6  Kn= .035  LAG=  30.5
1956            KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
1957            BA   0.999
1958            LG    0.18    0.15    8.80    0.09      59
1959            UI     110     271     519     667     869    1308    1136     873     663     506
1960            UI     275     187     126      81      34      34      34      34       7       0
                *

1961            KK   RETMC
1962            KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
1963            DT   RETMC    95.4
1964            DI       0   10000
1965            DQ       0   10000
                *

1966            KK   CPMC1
1967            KM        ADD HYDROGRAPHS AT MC
1968            HC       3
                *

1969            KK  DIMCMB
1970            KM        DIVERT 39% OF FLOW AT MC TO MB.
1971            DT    DIMB
1972            DI       0      25      50      75     100     150     200
1973            DQ       0       8      20      29      39      59      78
                *
```

```
KK  RTMCIE   ROUTE   REACH
KM        ROUTE FLOW FROM MC TO IE (ALONG 99TH AVENUE).
KM        FUTURE ARTERIAL SECTION
RS       1              -1        0
RC   0.100   0.023   0.100     2000  0.0030    0.00
RX     0.0     440     445    445.1   575.1   575.2     900  1000.0
RY     105     105     105    99.75   99.75     105     105     105
*

KK  DIMCIE
KM        DIVERT FLOW FOR LATER RECOMBINING
DT    MCIE
DI       0   10000
DQ       0   10000
*

KK    DREB
KM  RETURN DIVERT FROM MF TO EB
DR    DIEB
*

KK   SUBEB   BASIN
KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
KM    L=       .5  Lca=       .3   S=   11.3  Kn= .050  LAG=  22.1
KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
BA   0.139
LG    0.25    0.21    6.40    0.23      30
UI      21      85     127     192     240     164     114      60      34      19
UI       6       6       6       1       0       0       0       0       0       0
*

KK   RETEB
KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
DT   RETEB     11.5
DI       0   10000
DQ       0   10000
*

KK    CPEB
HC       2
*

KK   RDIED
KM   RETURN DIVERT FROM JB1 TO ED1
DR    DIED
*

KK  RJBED1   ROUTE   REACH
KM        ROUTE FLOW ALONG DRCC ALIGNMENT FROM 83RD TO IRRIGATION CANAL
KM   ROUTING IS OVER EXISTING RETENTION BASINS 250 FOOT WIDTH
RS       7              -1        0
RC   0.040   0.040   0.040     2563  0.0007    0.00
RX     0.0       0       0        0     250     250     250     250
```

```
2013          RY      10       1       1     1.0     1.0       1       1      10
                *
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


2014          KK  RJBED2   ROUTE   REACH
2015          KM        ROUTE FLOW ALONG DRCC ALIGNMENT FROM IRRIGATION CANAL TO 91ST
2016          KM    ROUTING IS OVER EXISTING RETENTION BASINS MEASURED AT 420 FOOT WIDTH
2017          KM    NEW DEVELOPMENT STILL BEING GRADED AT TIME OF THIS RUN 1-22-2006
2018          RS       7              -1       0
2019          RC   0.040   0.040   0.040    2563  0.0007    0.00
2020          RX     0.0       0       0       0     420     420     420     420
2021          RY      10       1       1     1.0     1.0       1       1      10
                *

2022          KK  SUBED1   BASIN
2023          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2024          KM    L=      1.2  Lca=       .6   S=    9.4  Kn= .050  LAG=  42.1
2025          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2026          BA   0.382
2027          LG    0.25    0.25    5.70    0.31      30
2028          UI      30      35     108     147     174     208     254     357     356     280
2029          UI     237     193     161     127      75      53      49      30      27       9
2030          UI       9       9       9       9       9       2       0       0       0       0
                *

2031          KK  RETED1
2032          KM   RETENTION
2033          KM   DIVERT FIRST FLUSH AND A PORTION OF 100-YEAR 2-HOUR RETENTION
2034          KM   PORTION OF ED1 UPSTREAM OF IRRIGATION CANAL ASSUMED 100-YEAR-2HOUR RETENTION
2035          KM   PORTION OF ED1 DOWNSTREAM OF IRRIGATION CANAL ASSUMED FIRST FLUSH ONLY
2036          KM   DOWNSTREAM 100-YEAR 2-HOUR RETENTION WOULD BE REMOVED BY INSTALLING 10-YEAR
2037          KM   CULVERT AT 91ST AVENUE
2038          DT  RETED1    19.9
2039          DI       0   10000
2040          DQ       0   10000
                *

2041          KK  SUBED2   BASIN
2042          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2043          KM    L= 0.6     Lca=  .3      S=     9.4      Kn= .050     LAG=  24.5
2044          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2045          BA   0.114
2046          LG    0.30    0.25    5.70    0.31      15
2047          UI      16      54      87     118     184     146     107      76      38      24
2048          UI      15       5       5       5       3       0       0       0       0       0
                *

2049          KK  RETED2
2050          KM   RETENTION
2051          KM   DIVERT 80% OF 100-YEAR 2-HOUR  RETENTION OUT OF MODEL - JCS
2052          DT  RETED2     7.5
```

```
2053          DI        0   10000
2054          DQ        0   10000
              *
```



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


2055          KK  CPED1
2056          KM   ADD HYDROGRAPHS AT ED1
2057          HC        2
              *

2058          KK  ~CPED1
2059          KM   ADD HYDROGRAPHS AT ED1
2060          HC        2
              *

2061          KK  ~CPED2
2062          KM   COMBINE FLOW FROM EB & ED WITH FLOW FROM MF DIVERSION
2063          HC        2
              *

2064          KK  RRED
2065          KM   MODIFIED PULS ROUTING
2066          KM   DETENTION IN DRCC RIGHT OF WAY AT ED1 (91ST AVENUE)  POL
2067          RS        1    STOR       0       0
2068          SV        0    11.7    16.4
2069          SQ        0     333    1180
              *

2070          KK  RT95  ROUTE   REACH
2071          KM        ROUTE FLOW ALONG DRCC ALIGNMENT FROM 91ST TO 95TH BASIN
2072          RS        1              -1       0
2073          RC   0.032   0.032   0.032    3828  0.0015    0.00
2074          RX     0.0       0       0      23      45      66      66      66
2075          RY        7       7       7     0.0     0.0       7       7       7
              *

2076          KK  95BASIN
2077          KM   MODIFIED PULS ROUTING
2078          KM   DETENTION IN 95BSN
2079          KM   BASIN IS 15 ACRE BOTTOM WIDTH WITH 6TO1 SIDES
2080          KM   BASIN BOTTOM IS FLUSH WITH ADJACENT CHANNEL BOTTOM
2081          KM   A SINGLE 4 BY 9 CULVERT IN THE CHANNEL CONTROLS OUTFLOW
2082          KM   MAXIMUM CULVERT HEADWATER AND PONDING DEPTH IN THE BASIN IS 5 FEET
2083          RS        1    STOR       0       0
2084          SV        0      47      81
2085          SQ        0     206     300
              *

2086          KK  RT99  ROUTE   REACH
2087          KM        ROUTE FLOW ALONG DRCC ALIGNMENT FROM 95TH TO 99TH
2088          RS        1              -1       0
```

```
2089          RC   0.032   0.032   0.032    1389  0.0027    0.00
2090          RX     0.0       0       0      23      45      66      66      66
2091          RY       7       7       7     0.0     0.0       7       7       7
              *
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2092          KK  SUBID1   BASIN
2093          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2094          KM    L=  1.0     Lca=  .4      S= 7.1      Kn= .05     LAG=  35.0
2095          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2096          BA   0.204
2097          LG    0.25    0.15    8.00    0.11      30
2098          UI      20      37      82     107     131     170     242     199     159     126
2099          UI     101      71      38      32      20      15       6       6       6       6
2100          UI       6       0       0       0       0       0       0       0       0       0
2101          UI       0       0       0       0       0       0       0       0       0       0
              *

2102          KK  RETID1
2103          KM   RETENTION
2104          KM   DIVERT 80% OF 100-YEAR 2 HOUR RETENTION
2105          KM   NO EXPECTED PROJECT-RELATED CHANGE IN RETENTION AS A RESULT OF THIS PROJECT
2106          DT  RETID1    16.9
2107          DI       0   10000
2108          DQ       0   10000
              *

2109          KK  SUBID2   BASIN
2110          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2111          KM    L=   1.0     Lca=  .4       S=  7.1      Kn= .05     LAG=  35.0
2112          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2113          BA   0.359
2114          LG    0.25    0.25    4.90    0.40      30
2115          UI      34      65     145     188     231     298     426     351     280     222
2116          UI     177     124      67      57      36      26      11      10      11      10
2117          UI      10       0       0       0       0       0       0       0       0       0
2118          UI       0       0       0       0       0       0       0       0       0       0
              *

2119          KK  RETID2
2120          KM   RETENTION
2121          KM   DIVERT 80% OF 100-YEAR 2 HOUR RETENTION
2122          KM   NO EXPECTED PROJECT-RELATED CHANGE IN RETENTION AS A RESULT OF THIS PROJECT
2123          DT  RETID2    29.7
2124          DI       0   10000
2125          DQ       0   10000
              *

2126          KK   SUBIE   BASIN
2127          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2128          KM    L=       .8  Lca=       .4   S=    6.0  Kn= .05   LAG=  34.3
```

```
2129          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2130          BA   0.302
2131          LG    0.25    0.15    8.80    0.09      30
2132          UI      30      58     126     164     203     267     368     289     232     181
2133          UI     137     135     135     132     113     115     126      84      88      87
2134          UI     146      93      51      44      30      16       9       9       9       9
2135          UI       5       0       0       0       0       0       0       0       0       0
              *
```



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


2136          KK   RETIE
2137          KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
2138          DT   RETIE    25.0
2139          DI       0   10000
2140          DQ       0   10000
              *

2141          KK  DRMCIE
2142          KM   RETURN DIVERT MCIE
2143          DR    MCIE
              *

2144          KK  ~CPID2
2145          HC       4
              *

2146          KK   RRID1
2147          KM   MODIFIED PULS ROUTING
2148          KM   DETENTION IN DRCC RIGHT OF WAY AT ID1 (99TH AVENUE)  POL
2149          KM   OUTFLOW BASED ON AN EXISTING 2 CELL 4 BY 10 CULVERT AT 99TH AVENUE
2150          KM   MAXIMUM HEADWATER IS 6 FEET WITHOUT OVERFLOW
2151          KM   ASSUME 1 FOOT OVERFLOW
2152          KM   STORAGE BASED ON EXISTING CHANNEL 20 FOOT BOTTOM WIDTH 65 FOOT TOP
2153          KM   CHANNEL 6 FEET DEEP ASSUME 1 FOOT OVERTOPPING
2154          KM   OVERTOPPING WIDTH 250 FEET
2155          KM   CHANNEL SLOPE 0.0032
2156          RS       1    STOR       0       0
2157          SV       0    0.10       6    12.9
2158          SQ       0      50     770    1611
              *

2159          KK   CPID3
2160          HC       2
              *

2161          KK  RT107  ROUTE   REACH
2162          KM        ROUTE FLOW ALONG DRCC ALIGNMENT FROM 99TH TO 107TH
2163          KM   APPROXIMATELY THREE FOURTHS OF THIS CHANNEL IS EXISTING
2164          KM   CHANNEL ASSUMED TO BE EXTENDED TO 107TH
2165          KM   THIS AND PROPOSED CULVERT AT 107TH ASSUMED TO ELIMINATE
2166          KM   ALL BUT FIRST FLUSH RETENTION BETWEEN 99TH AND 107TH
```

```
2167          RS       2              -1       0
2168          RC   0.032    0.032    0.032    5265  0.0032    0.00
2169          RX     0.0        0        0      23      45      66      66      66
2170          RY       7        7        7     0.0     0.0       7       7       7
              *

2171          KK   SUBIB    BASIN
2172          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2173          KM    L=    1.1     Lca=   .6       S=    14.2      Kn= .050      LAG=  36.8
2174          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2175          BA   0.479
2176          LG    0.25     0.15     8.00     0.13      30
2177          UI      44       75      175      231     279     349     502     500     386     316
```

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

2178          UI     252      199      123       76      66      44      27      13      14      13
2179          UI      13       13        0        0       0       0       0       0       0       0
2180          UI       0        0        0        0       0       0       0       0       0       0
              *

2181          KK   RETIB
2182          KM   RETENTION MODIFIED FROM REQUIRED TO FIRST FLUSH FOR DETENTION BASIN ROUTING -
2183          KM   DIVERT 80% OF FIRST FLUSH 1/2" RETENTION OUT OF MODEL - JCS
2184          DT   RETIB     10.2
2185          DI       0    10000
2186          DQ       0    10000
              *

2187          KK   SUBIC    BASIN
2188          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2189          KM    L=  1.1      Lca= .5       S=   4.7      Kn= .050      LAG=  43.1
2190          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2191          BA   0.461
2192          LG    0.25     0.25     5.20     0.36      30
2193          UI      36       38      127      169     203     239     289     396     442     344
2194          UI     291      240      200      162     111      64      59      43      36      18
2195          UI      11       11       11       11      11       9       0       0       0       0
2196          UI       0        0        0        0       0       0       0       0       0       0
              *

2197          KK   RETIC
2198          KM   RETENTION MODIFIED FROM 80% REQUIRED TO FIRST FLUSH FOR DETENTION BASIN ROUTI
2199          KM   DIVERT 80% OF FIRST FLUSH 1/2" RETENTION OUT OF MODEL - JCS
2200          DT   RETIC      9.8
2201          DI       0    10000
2202          DQ       0    10000
              *

2203          KK    CPIC
2204          KM   COMBINE IB AND IC FLOWS
2205          HC       2
              *
```

```
2206            KK   SUBOC   BASIN
2207            KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2208            KM    L=       .8  Lca=       .4   S=   13.2    Kn= .03   LAG=  17.6
2209            KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2210            BA   0.310
2211            LG    0.15    0.15    9.70    0.07      59
2212            UI      85     285     452     670     436     263     109      56      18      18
2213            UI      10       0       0       0       0       0       0       0       0       0
2214            UI       0       0       0       0       0       0       0       0       0       0
                *

2215            KK   RETOC
2216            KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
2217            DT   RETOC     31.1
2218            DI       0   10000
2219            DQ       0   10000
                *
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LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


2220            KK    DROC
2221            KM    RETURN DIVERT FROM OD.
2222            DR    DIOC
                *

2223            KK  RTDIOC   ROUTE   REACH
2224            KM        ROUTE DIVERT FROM OD TO OC
2225            KM        FUTURE ARTERIAL SECTION
2226            RS       7              -1       0
2227            RC   0.100   0.023   0.100    4000  0.0010    0.00
2228            RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
2229            RY     105     105     105   99.75   99.75     105     105     105
                *

2230            KK    CPOC
2231            KM   ADD HYDROGRAPHS AT OC
2232            HC       2
                *

2233            KK  RTOCMB   ROUTE   REACH
2234            KM        ROUTE FLOW FROM OC TO MB.
2235            KM        FUTURE ARTERIAL SECTION
2236            RS       3              -1       0
2237            RC   0.100   0.023   0.100    5200  0.0038    0.00
2238            RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
2239            RY     105     105     105   99.75   99.75     105     105     105
                *

2240            KK   SUBMB   BASIN
2241            KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2242            KM    L=  1.4      Lca= .7      S= 17.6      Kn= .0425      LAG=  34.5
```

```
2243            KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2244            BA   0.995
2245            LG    0.21    0.15    8.40    0.10      46
2246            UI      97     190     413     535     664     866    1210     956     766     598
2247            UI     486     313     171     148      98      58      30      30      30      30
2248            UI      17       0       0       0       0       0       0       0       0       0
2249            UI       0       0       0       0       0       0       0       0       0       0
                *

2250            KK   RETMB
2251            KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
2252            DT   RETMB    88.4
2253            DI       0   10000
2254            DQ       0   10000
                *

2255            KK    DRMB
2256            KM    RETURN DIVERT FROM MC.
2257            DR    DIMB
                *
```



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


2258            KK  RTDIMB   ROUTE   REACH
2259            KM         ROUTE DIVERT FROM MC TO MB
2260            KM         FUTURE ARTERIAL SECTION
2261            RS       4             -1       0
2262            RC   0.100   0.023   0.100    5200  0.0023    0.00
2263            RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
2264            RY     105     105     105   99.75   99.75     105     105     105
                *

2265            KK   @CPMB
2266            KM   ADD HYDROGRAPHS AT MB.
2267            HC       3    5.24
                *

2268            KK  RTMBIB   ROUTE   REACH
2269            KM         ROUTE FLOW FROM MB TO IB (ALONG 107TH AVENUE).
2270            KM         FUTURE ARTERIAL SECTION
2271            RS       1             -1       0
2272            RC   0.100   0.030   0.100    2600  0.0015    0.00
2273            RX     0.0     440     445   445.1   745.1   745.2     900  1000.0
2274            RY     105     105     105   100.0   100.0     105     105     105
                *

2275            KK   CPIB0
2276            KM   ADD HYDROGRAPHS AT IB.
2277            HC       2
                *
                * KK CPIB1
                * KM ADD HYDROGRAPHS AT IB.
```

```
             * HC     2
             *

2278         KK  @CPIB2
2279         KM   COMBINE TRIBUTARY FLOW WITH MAIN CHANNEL FLOW
2280         HC       3
             *

2281         KK    RRIB
2282         KM   MODIFIED PULS ROUTING
2283         KM   DETENTION IN DRCC RIGHT OF WAY AT IB (107TH AVENUE)  POL
2284         KM   NEW CULVERT AT 107 ASSUMED TO BE 2 CELL 4 BY 9
2285         KM   CULVERT HEADWATER BEFORE OVERTOPPING 6 FEET
2286         KM   ASSUME 1 FOOT OVERTOPPING AT 250 FOOT WIDTH
2287         KM   CHANNEL SLOPE 0.032
2288         KM   CHANNEL IS 20 FOOT BOTTOM WITH 65 FOOT TOP WITH 6 FOOT DEPTH
2289         KM   THIS IS THE SAME CHANNEL EXISTING DOWNSTREAM OF 99TH
2290         RS       1    STOR       0       0
2291         SV       0    0.08     5.1    10.9
2292         SQ       0      44     711    1525
             *
```



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


2293         KK  MCIBIA   ROUTE   REACH
2294         KM   ADMP CHANNEL
2295         KM   ROUTE FLOW FROM IB TO IA
2296         RS       4    FLOW      -1
2297         RC   0.040   0.040   0.040    2493  0.0005    0.00
2298         RX     1.0    17.0    35.2    53.3   263.3   281.5   299.7   315.7
2299         RY     5.7     6.1     3.0     0.0     0.0     3.0     6.1     5.7
             *
             * KM HEC-RAS REACH
             * KM BFC
             * KM ROUTE FLOW FROM IB TO IA (ALONG 107TH AVENUE).
             * KM ROUTING FOR THIS REACH USES DISCHARGE-STORAGE VALUES DEVELOPED FROM THE
             * KM HEC-RAS MODEL. 06.07.00 -DCF
             * RS      3    STOR       0
             * SV      0      17    45.4      77     106   135.9   167.9   199.8   228.7     2
             * SQ      0     400     800    1200    1600    2000    2400    2800    3200    34
             *
             * KM FUTURE ARTERIAL SECTION
             * RS      1              -1       0
             * RC 0.100   0.023   0.100     500  0.0120    0.00
             * RX   0.0     440     445   445.1   575.1   575.2     900  1000.0
             * RY   105     105     105   99.75   99.75     105     105     105
             *

2300         KK   SUBME   BASIN
2301         KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2302         KM    L=   1.0     Lca= .4     S=  20.6     Kn= .050     LAG=  30.1
2303         KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
```

```
2304     BA   0.326
2305     LG    0.29    0.26    4.70    0.44      18
2306     UI      36      91     172     222     290     437     366     282     215     161
2307     UI      83      61      39      23      11      11      11      11       0       0
2308     UI       0       0       0       0       0       0       0       0       0       0
         *

2309     KK   RETME
2310     KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
2311     DT   RETME    22.8
2312     DI       0   10000
2313     DQ       0   10000
         *

2314     KK  RTMEIA   ROUTE   REACH
2315     KM        ROUTE FLOW FROM ME TO IA (ALONG 107TH AVENUE).
2316     KM        FUTURE ARTERIAL SECTION
2317     RS       3              -1       0
2318     RC   0.100   0.023   0.100    3400  0.0034    0.00
2319     RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
2320     RY     105     105     105   99.75   99.75     105     105     105
         *
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LINE     ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


2321     KK   SUBIA   BASIN
2322     KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2323     KM    L=  .8     Lca=  .4     S= 17.1      Kn= .05     LAG=  26.2
2324     KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2325     KM   THIS SUBBASIN HAS BE MODIFIED TO ACCOUNT FOR EXISTING DEVELOPMENT
2326     KM   WITHOUT RETENTION. - JCS
2327     BA   0.309
2328     LG    0.27    0.25    6.00    0.25    23.1
2329     UI      40     125     210     277     426     426     309     227     152      73
2330     UI      53      32      12      12      12       8       0       0       0       0
2331     UI       0       0       0       0       0       0       0       0       0       0
         *

2332     KK   RETIA
2333     KM   DIVERT 80% OF FIRST FLUSH 1/2" RETENTION OUT OF MODEL - JCS
2334     KM   THIS DIVERSION HAS BE MODIFIED TO ACCOUNT FOR EXISTING DEVELOPMENT
2335     KM   WITHOUT RETENTION. - JCS
2336     DT   RETIA     3.6
2337     DI       0   10000
2338     DQ       0   10000
         *

2339     KK   ~CPIA
2340     KM        ADD HYDROGRAPHS AT IA.
2341     HC       3
         *
```

```
2342        KK  MCIAHB   ROUTE   REACH
2343        KM   ADMP CHANNEL
2344        KM   ROUTE FLOW FROM BASIN IA TO HB
2345        RS       4    FLOW      -1
2346        RC   0.040   0.040   0.040    2646  0.0005    0.00
2347        RX     0.0    16.0    34.1    52.2   262.2   280.3   298.4   314.4
2348        RY     5.7     6.0     3.0     0.0     0.0     3.0     6.0     5.7
            * KM HEC-RAS REACH
            * KM BFC
            * KM ROUTE FLOW FROM IA TO HB.
            * KM ROUTING FOR THIS REACH USES DISCHARGE-STORAGE VALUES DEVELOPED FROM THE
            * KM HEC-RAS MODEL. 06.07.00 -DCF
            * RS       2    STOR       0
            * SV       0    23.3    45.2      73   102.7   132.9   160.6   189.4   212.1   222
            * SQ       0     400     800    1200    1600    2000    2400    2800    3200    34
            *

2349        KK   SUBHB   BASIN
2350        KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2351        KM    L=  .8    Lca=   .4     S=  25.0     Kn= .050     LAG=  25.1
2352        KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2353        KM   THIS SUBBASIN HAS BE MODIFIED TO ACCOUNT FOR EXISTING DEVELOPMENT
2354        KM   WITHOUT RETENTION. - JCS
2355        BA   0.343
2356        LG    0.27    0.25    4.80    0.41    24.3
2357        UI      46     154     250     336     531     450     329     239     132      78
2358        UI      48      21      14      14      14       0       0       0       0       0
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LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2359        UI       0       0       0       0       0       0       0       0       0       0
            *

2360        KK   RETHB
2361        KM   DIVERT 80% OF FIRST FLUSH 1/2" RETENTION OUT OF MODEL - JCS
2362        KM   THIS DIVERSION HAS BE MODIFIED TO ACCOUNT FOR EXISTING DEVELOPMENT
2363        KM   WITHOUT RETENTION. - JCS
2364        DT   RETHB     4.5
2365        DI       0   10000
2366        DQ       0   10000
            *

2367        KK   CPHB1
2368        KM   ADD HYDROGRAPHS AT HB.
2369        HC       2
            *

2370        KK   SUBDA   BASIN
2371        KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2372        KM    L=  1.0    Lca= .6      S= 17.6      Kn= .05     LAG=  34.0
2373        KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2374        KM   THIS SUBBASIN HAS BE MODIFIED TO ACCOUNT FOR EXISTING DEVELOPMENT
2375        KM   WITHOUT RETENTION. - JCS
```

```
2376            BA   0.328
2377            LG    0.30    0.17    6.80    0.18      15
2378            UI      32      65     140     181     225     302     400     311     249     195
2379            UI     154      94      56      46      33      14      10      10      10      10
2380            UI       3       0       0       0       0       0       0       0       0       0
2381            UI       0       0       0       0       0       0       0       0       0       0
                *

2382            KK   RETDA
2383            KM   DIVERT 80% OF FIRST FLUSH 1/2" RETENTION OUT OF MODEL - JCS
2384            KM   THIS DIVERSION HAS BE MODIFIED TO ACCOUNT FOR EXISTING DEVELOPMENT
2385            KM   WITHOUT RETENTION. - JCS
2386            DT   RETDA     4.6
2387            DI       0   10000
2388            DQ       0   10000
                *

2389            KK   ~CPDA
2390            KM   ADD HYDROGRAPHS AT DA.
2391            HC       2
                *

2392            KK   SUBLD   BASIN
2393            KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2394            KM    L=        .8  Lca=       .4   S=   13.3    Kn= .05    LAG=  30
2395            KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2396            BA   0.278
2397            LG    0.28    0.26    4.80    0.37      29
2398            UI      32      82     153     197     263     386     305     236     179     126
2399            UI      65      49      32      14      10      10       9       6       0       0
2400            UI       0       0       0       0       0       0       0       0       0       0
                *
```



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

2401            KK   RETLD
2402            KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
2403            DT   RETLD    20.7
2404            DI       0   10000
2405            DQ       0   10000
                *
                * THE FOLLOWING RETURN AND ROUTE REMOVED TO MODEL THE ADMP CONDITION
                * KK  DRLD
                * KM RETURN DIVERT FROM LE TO LD
                * DR  DILD
                *
                * KKRTDILD   ROUTE   REACH
                * KM ROUTE DIVERT FROM LE TO LD
                * KM TYPE A CHANNEL
                * RS     4              -1       0
                * RC 0.025   0.025   0.025    2500  0.0016    0.00
                * RX   0.0   100.0   400.0   500.0   500.1   600.0   900.0  1000.0
```

```
                   * RY   5.0     4.0     1.0     0.0     0.0     1.0     4.0     5.0
                   *

 2406              KK  RTLDMA   ROUTE   REACH
 2407              KM        ROUTE FLOW FROM LD TO MA
 2408              KM        TYPE A CHANNEL
 2409              RS      3             -1       0
 2410              RC   0.025   0.025   0.025    2600  0.0035    0.00
 2411              RX     0.0   100.0   400.0   500.0   500.1   600.0   900.0  1000.0
 2412              RY     5.0     4.0     1.0     0.0     0.0     1.0     4.0     5.0
                   *

 2413              KK   SUBMA   BASIN
 2414              KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 2415              KM    L=  .7       Lca= .3        S=  14.7      Kn= .050     LAG=  24.8
 2416              KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
 2417              BA   0.247
 2418              LG    0.30    0.25    4.55    0.52      15
 2419              UI      33     115     184     250     392     320     234     167      88      55
 2420              UI      34      12      10      10       8       0       0       0       0       0
 2421              UI       0       0       0       0       0       0       0       0       0       0
                   *

 2422              KK   RETMA
 2423              KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
 2424              DT   RETMA    16.3
 2425              DI       0   10000
 2426              DQ       0   10000
                   *

 2427              KK    CPMA
 2428              KM         ADD HYDROGRAPHS AT MA
 2429              HC       2
                   *
1                                            HEC-1 INPUT                                                      PAGE 67

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


 2430              KK  RTMAHB   ROUTE   REACH
 2431              KM         ROUTE FLOW FROM MA TO HB (ALONG 115TH AVENUE).
 2432              KM         FUTURE ARTERIAL SECTION
 2433              RS       3             -1       0
 2434              RC   0.100   0.023   0.100    4000  0.0071    0.00
 2435              RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
 2436              RY     105     105     105   99.75   99.75     105     105     105
                   *

 2437              KK   CPHB2
 2438              KM         ADD HYDROGRAPHS AT HB.
 2439              HC       2
                   *
                   * THE FOLLOWING ROUTES REMOVED TO MODEL THE ADMP CONDITION
                   * ROUTING TO DA NO LONGER OCCURS BUT IS COMBINED INTO CHANNEL AT HB
```

```
                   * KKRTHBDA
                   * KM HEC-RAS REACH
                   * KM BFC
                   * KM ROUTE FLOW FROM HB TO DA (ALONG 115TH AVENUE).
                   * KM ROUTING FOR THIS REACH USES DISCHARGE-STORAGE VALUES DEVELOPED FROM THE
                   * KM HEC-RAS MODEL. 06.07.00 -DCF
                   * RS      2    STOR       0
                   * SV      0    11.3    18.3    26.4    34.3    40.3    46.2    51.7    56.5    59
                   * SQ      0     400     800    1200    1600    2000    2400    2800    3200    34
                   *
                   * KKRTDACC
                   * KM HEC-RAS REACH
                   * KM BFC
                   * KM ROUTE FLOW FROM DA TO CC.
                   * KM ROUTING FOR THIS REACH USES DISCHARGE-STORAGE VALUES DEVELOPED FROM THE
                   * KM HEC-RAS MODEL. 06.07.00 -DCF
                   * RS      6    STOR       0
                   * SV      0    49.6    80.6   107.1   129.8   149.2     167   184.1   200.2   207
                   * SQ      0     400     800    1200    1600    2000    2400    2800    3200    34
                   *

  2440             KK   SUBLB   BASIN
  2441             KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
  2442             KM    L=       .7  Lca=       .3   S=    8.8  Kn= .050  LAG=  27
  2443             KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
  2444             BA   0.249
  2445             LG    0.30    0.25    4.60    0.49      15
  2446             UI      31      90     158     206     297     358     258     192     142      72
  2447             UI      50      31      14      10      10       9       3       0       0       0
  2448             UI       0       0       0       0       0       0       0       0       0       0
                   *

  2449             KK   RETLB
  2450             KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
  2451             DT   RETLB    16.4
  2452             DI       0   10000
  2453             DQ       0   10000
                   *
```



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

  2454             KK  RTLBHA   ROUTE   REACH
  2455             KM        ROUTE FLOW FROM LB TO HA (SHEET FLOW).
  2456             KM        TYPE A CHANNEL
  2457             RS      13              -1       0
  2458             RC   0.100   0.100   0.100    4000  0.0065    0.00
  2459             RX     0.0   100.0   400.0   500.0   500.1   600.0   900.0  1000.0
  2460             RY     5.0     4.0     1.0     0.0     0.0     1.0     4.0     5.0
                   *

  2461             KK   SUBHA   BASIN
  2462             KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
```

```
2463          KM    L=  .8     Lca=  .4      S= 33.8      Kn= .05     LAG=  23.5
2464          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2465          BA   0.150
2466          LG    0.25    0.25    4.70    0.44      30
2467          UI      21      79     122     172     255     186     133     089      42      27
2468          UI      14       7       7       7       0       0       0       0       0       0
2469          UI       0       0       0       0       0       0       0       0       0       0
              *

2470          KK   RETHA
2471          KM   DIVERT 80% OF FIRST FLUSH 1/2" RETENTION OUT OF MODEL - JCS
2472          DT   RETHA     3.2
2473          DI       0   10000
2474          DQ       0   10000
              *

2475          KK    CPHA
2476          KM        ADD HYDROGRAPHS AT HA
2477          HC       3
              * ***************************************************************************
              * INSERTED SOUTH ALIGNMENT FROM 1084F6-IMP-R.DAT - JCS
              * ADDED/CHANGED SUBJB2 TO CPEE IN ORDER TO REINSERT SUBJB2 - JCS
              *

2478          KK  MCHACB    ROUTE       REACH
2479          KM   ADMP CHANNEL
2480          KM   ROUTE FLOW FROM HA TO CB.
2481          RS       8    FLOW      -1
2482          RC   0.040   0.040   0.040    9163  0.0017    0.00
2483          RX     0.0    16.0    33.7    51.4   201.4   219.4   228.1   244.1
2484          RY     5.6     5.9     3.0     0.0     0.0     3.0     5.9     5.6
              *
              * KK SUBJB2
              * KM  THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
              * KM  L=      1.3  Lca=       .7   S=   17.4  Kn= .050  LAG=  40
              * KM  VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
              * BA 0.493
              * LG  0.30    0.21    6.40    0.18      15
              * UI    41      54     151     203     242     293     372     515     433     3
              * UI   292     237     194     133      73      68      46      41      14
              * UI    12      13      13      13       2       0       0       0       0
              *
              * KKRETJB2
              * KM DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
              * DTRETJB2    32.4
              * DI     0   10000
              * DQ     0   10000
              *
              * KK DRJB2
              * KM  RETURN DIVERT FROM JC2
              * DR DIJB2
              *
              * KK RTJCJB   ROUTE       REACH
              * KM ROUTE DIVERT FROM JC2 TO JB2
```

```
* KM FUTURE ARTERIAL SECTION
* RS    4              -1       0
* RC 0.100    0.023   0.100    5000  0.0015    0.00
* RX   0.0      440     445   445.1   575.1   575.2     900  1000.0
* RY   105      105     105   99.75   99.75     105     105     105
*
* KK@CPJB2
* KM ADD HYDROGRAPHS AT JB2
* HC     2     3.81
*
* KKDIJBEE
* KM DIVERT 64% OF FLOW AT JB2 TO FA AND THE SALT RIVER. - JCS
* DT  DIFA
* DI     0       25      50      75     100     150    2000
* DQ     0       16      32      48      64      96    1280
*
* KKRTJBEE  ROUTE      REACH
* KM      ROUTE DIVERT FROM JB TO EE
* KM      TYPE A CHANNEL
* RS    10             -1       0
* RC 0.100    0.023   0.100    7500  0.0015    0.00
* RX   0.0    100.0   400.0   500.0   500.1   600.0   900.0  1000.0
* RY   5.0      4.0     1.0     0.0     0.0     1.0     4.0     5.0
*
* KK SUBEE
* KM  THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
* KM  L=      1.6  Lca=      1.0   S=   16.0  Kn= .05  LAG=  50.8
* KM  VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
* BA 0.958
* LG  0.20     0.25    4.90    0.34      15
* UI    63       63     159     258     318     366     421     494     637     8
* UI   695      577     504     428     362     314     244     157     113     1
* UI    79       64      51      19      20      20      19      20      20
* UI     7        0       0       0       0       0       0       0       0
* UI     0        0       0       0       0       0       0       0       0
*
* KKRETEE
* KM DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
* DTRETEE     63.0
* DI     0   10000
* DQ     0   10000
*
* KK CPEE
* KM       ADD HYDROGRAPHS AT EE
* HC     2
*
* KKDI91ST
* KM DIVERT 100% OF FLOW TO SALT RIVER DUE TO ARMY CORPS OF ENGINEERS TRES RIOS
* KM INTERIOR DRAINAGE. 07/17/07, -JCS
* DT  DI91
* DI     0   10000
* DQ     0   10000
*
* KKRTEEEA
```

```
                      * KM HEC-RAS REACH
                      * KM ROUTE FLOW FROM EE TO EA.
                      * KM ROUTING FOR THIS REACH USES DISCHARGE-STORAGE VALUES OBTAINED FROM THE
                      * KM DIBBLE MODEL DUR-6im.DAT.   POL 9-6-2005
                      * RS      9     STOR       0
                      * SV      0     63.2    84.9     119   148.6   174.2   197.9   220.2   241.2    263
                      * SQ      0      100     200     400     600     800    1000    1200    1400     16
                      *
                      * KKRTEEEA   ROUTE   REACH
                      * KM      ROUTE FLOW FROM EE TO EA
                      * KM      TYPE A CHANNEL
                      * RS      9               -1       0
                      * RC 0.035   0.035   0.035    5300  0.0030    0.00
                      * RX    0.0  100.0   400.0   500.0   500.1   600.0   900.0  1000.0
                      * RY    5.0    4.0     1.0     0.0     0.0     1.0     4.0     5.0
                      *
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 LINE                 ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 2485                 KK   SUBEA   BASIN
 2486                 KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
 2487                 KM    L=      1.5  Lca=     .8      S=   21.3    Kn= .05    LAG=  43.2
 2488                 KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN
 2489                 KM   73% OF FLOW TO SALT RIVER DUE TO ARMY CORPS OF ENGINEERS TRES RIOS
 2490                 KM   INTERIOR DRAINAGE.  27% TO REMAIN.  ORIGINAL AREA = 1.321 MI.^2
 2491                 KM    REVISED - ASPEN CONSULTING ENGINEERS
 2492                 BA   0.357
 2493                 LG    0.25    0.25    5.30    0.29      30
 2494                 UI      28      29      98     130     157     185     223     305     342     267
 2495                 UI     225     186     155     126      87      49      46      33      28      14
 2496                 UI       8       8       8       8       9       7       0       0       0       0
 2497                 UI       0       0       0       0       0       0       0       0       0       0
                      *

 2498                 KK   RETEA
 2499                 KM   100-YR 6-HR RETENTION REQUIREMENT FOR NEW DEVELOPMENT.
 2500                 KM   TOTAL RUNOFF CALCULATED = 40 AF
 2501                 KM   AREA TO BE DEVELOPED IS 0.357 SQ. MI. 27% OF 1.321 SQ. MI. - JCS
 2502                 DT   RETEA    40.0
 2503                 DI       0   10000
 2504                 DQ       0   10000
                      *
                      * KK  CPEA
                      * KM      ADD HYDROGRAPHS AT EA
                      * HC      2   0.355
                      *
                      * KKP-99SO
                      * KO      1       2
                      * KM DIVERT OVERFLOW INTO BASIN - JLM 6/17/02
                      * DTB-99SO
                      * DI      0     260     260    2000    5000
                      * DQ      0       0       1    1740    4740
```

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                *

2505            KK  RTEADC   ROUTE   REACH
2506            KM   CROSS SECTION DERIVED FROM 2-FOOT TOPOGRAPHY AND SITE VISIT
2507            KM   ROUTE FLOW FROM EA TO DC.
2508            KM   ASPEN CONSULTING ENGINEERS, 06/21/06, -JCS
2509            RS      10              -1       0
2510            RC   0.065   0.065   0.065    4750  0.0065
2511            RX     0.0     1.0     2.0     4.0     7.0     9.0  1250.0  1252.0
2512            RY     4.0     0.0     0.0     0.0     0.0     0.0     0.0     6.0
                *

2513            KK   SUBDC   BASIN
2514            KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2515            KM    L=      1.6  Lca=       .8    S=   22.1    Kn= .05    LAG=  43.9
2516            KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN
2517            KM   THIS SUBBASIN HAS BE MODIFIED TO ACCOUNT FOR EXISTING DEVELOPMENT
2518            KM   WITHOUT RETENTION. - JCS
2519            BA   0.830
2520            LG    0.28    0.24    6.00    0.22      25
2521            UI      63      63     219     292     355     414     497     666     801     632
```



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

2522            UI     528     444     367     309     218     129     108      89      63      48
2523            UI      19      20      20      20      20      19       5       0       0       0
2524            UI       0       0       0       0       0       0       0       0       0       0
                *

2525            KK   RETDC
2526            KM   EXISTING DEVELOPMENT IS 50% OF DC AREA.  DIVERT FUTURE DEVELOPMENT PORTION OF
2527            KM   SUBBASIN FLOW (54.8%) OUT DUE TO 100-YR 6-HR RETENTION.
2528            KM   - JCS
2529            DT   RETDC      48
2530            DI       0   10000
2531            DQ       0    5480
                *

2532            KK   EXRETDD
2533            KM   RETENTION FOR EXISTING DEVELOPMENT.
2534            KM   30% OF DC AREA.
2535            DT   EXRET    20.7
2536            DI       0   10000
2537            DQ       0   10000
                *

2538            KK   SUBDD   BASIN
2539            KO       3
2540            KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2541            KM    L=       .5  Lca=       .3    S=   28.3  Kn= .050  LAG=  18.2
2542            KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2543            BA   0.133
2544            LG    0.25    0.25    4.70    0.40      30
```

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2545        UI     34    115    178    281    193    123     53     30     10      8
2546        UI      7      0      0      0      0      0      0      0      0      0
2547        UI      0      0      0      0      0      0      0      0      0      0
            *

2548        KK  RETDD
2549        KM  100-YR 24-HR RETENTION RQUIREMENT FOR NEW DEVELOPMENT.
2550        KM  DIVERT THE 100-YR 24-HR RAINFALL OUT OF MODEL
2551        KM  TOTAL RUNOFF CALCULATED = 14 AF - JCS
2552        DT  RETDD   14.0
2553        DI      0  10000
2554        DQ      0  10000
            *

2555        KK RTDDDC  ROUTE   REACH
2556        KM       ROUTE FLOW FROM DD TO DC (ALONG 107TH AVENUE).
2557        KM       FUTURE ARTERIAL SECTION
2558        RS      1             -1      0
2559        RC  0.100  0.030  0.100   1300 0.0090   0.00
2560        RX    0.0    440    445  445.1  745.1  745.2    900 1000.0
2561        RY    105    105    105  100.0  100.0    105    105    105
            *
```



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

2562        KK  ~CPDC
2563        KM       ADD HYDROGRAPHS AT DC
2564        HC      3  1.318
            *

2565        KK RTDCCC  ROUTE   REACH
2566        KM       ROUTE FLOW FROM DC TO CC.
2567        KM  SMALL SUNLAND CHANNEL SIZED FOR FLOW WHERE FUTURE DEVELOPMENT
2568        KM  HAS 100-YR 6-HR RETENTION.
2569        RS      5             -1      0
2570        RC  0.040  0.040  0.040   5153 0.0021   0.00
2571        RX    0.0    4.0   41.0   77.0   87.0  123.0  124.0  125.0
2572        RY    6.0    6.0    6.0    0.0    0.0    6.0    6.0    6.0
            *

2573        KK  SUBCC  BASIN
2574        KM   THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2575        KM   L=  1.4    Lca= .7    S=   22.8     Kn= .05      LAG=  39.4
2576        KM   VALLEY S-GRAPH WAS USED FOR THIS BASIN
2577        KM  THIS SUBBASIN HAS BE MODIFIED TO ACCOUNT FOR EXISTING DEVELOPMENT
2578        KM  WITHOUT RETENTION. - JCS
2579        BA  0.981
2580        LG   0.27   0.25   6.00   0.20     24
2581        UI     83    120    314    420    502    612    812   1041    839    688
2582        UI    563    458    364    218    145    129     84     63     25     25
2583        UI     26     25     25     15      0      0      0      0      0      0
2584        UI      0      0      0      0      0      0      0      0      0      0
```

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                *

2585            KK   RETCC
2586            KM   EXISTING DEVELOPMENT IS 37% OF DC AREA.  DIVERT FUTURE DEVELOPMENT PORTION OF
2587            KM   SUBBASIN FLOW (71.5%) OUT DUE TO 100-YR 6-HR RETENTION.
2588            KM    71 ACRE FEET IS VOLUME FOR 100-YEAR 6-HOUR RETENTION
2589            KM   - JCS
2590            DT   RETCC      71
2591            DI       0   10000
2592            DQ       0    7150
                *

2593            KK   ~CPCC
2594            HC       2   2.299
                *

2595            KK  RTCCSC
2596            KM   ROUTE FLOW FROM CC TO DRCC
2597            KM   SMALL SUNLAND CHANNEL SIZED FOR FLOW WHERE FUTURE DEVELOPMENT
2598            KM   HAS 100-YR 6-HR RETENTION. D=4.2FT, Q=400CFS
2599            RS       4              -1       0
2600            RC   0.040   0.040   0.040    3027  0.0008    0.00
2601            RX     0.0     4.0    41.0    77.0    87.0   123.0   124.0   125.0
2602            RY     6.0     6.0     6.0     0.0     0.0     6.0     6.0     6.0
                *
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```
2603            KK  RTCCSC
2604            KM   ROUTE SUNLAND IN DRCC
2605            KM   DRCC CHANNEL
2606            RS       2              -1       0
2607            RC   0.040   0.040   0.040    2256  0.0017    0.00
2608            RX     0.0   100.0   101.0   137.0   287.0   353.0   354.0   454.0
2609            RY     6.0     6.0     6.0     0.0     0.0     6.0     6.0     6.0
                *

2610            KK   SUBCB   BASIN
2611            KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2612            KM    L=  1.2     Lca=  .5      S= 11.1      Kn= .05      LAG=  36.9
2613            KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2614            BA   0.739
2615            LG    0.30    0.15    9.70    0.07      15
2616            UI      67     114     268     355     429     535     768     774     596     488
2617            UI     390     310     194     117     102      68      43      21      21      21
2618            UI      21      21       1       0       0       0       0       0       0       0
2619            UI       0       0       0       0       0       0       0       0       0       0
                *

2620            KK   RETCB
2621            KM   DIVERT 80% OF FIRST FLUSH 1/2" RETENTION OUT OF MODEL - JCS
2622            DT   RETCB    15.8
```

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2623          DI       0   10000
2624          DQ       0   10000
              *

2625          KK  ~CPCB1
2626          HC       3
              *

2627          KK  SUBGD1   BASIN
2628          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2629          KM    L=  1.1     Lca= .6     S= 33.3     Kn= .05      LAG=  31.6
2630          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2631          BA   0.629
2632          LG    0.25    0.25    5.30    0.33      30
2633          UI      67     155     306     394     501     742     750     564     440     342
2634          UI     225     116      96      68      26      21      21      20      18       0
2635          UI       0       0       0       0       0       0       0       0       0       0
              *

2636          KK  RETGD1
2637          KM   DIVERT 80% OF FIRST FLUSH 1/2" RETENTION OUT OF MODEL - JCS
2638          DT  RETGD1    13.4
2639          DI       0   10000
2640          DQ       0   10000
              *
```



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

2641          KK  SUBGD2
2642          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2643          KM    L=  1.2     Lca=  .5     S= 11.1     Kn= .05      LAG=  37.5
2644          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2645          BA   0.211
2646          LG    0.25    0.15    9.70    0.07      30
2647          UI      66     108     259     345     414     512     722     791     604     498
2648          UI     395     327     218     119     109      69      56      21      21      20
2649          UI      21      20       9       0       0       0       0       0       0       0
2650          UI       0       0       0       0       0       0       0       0       0       0
              *

2651          KK  RETGD2
2652          KM   DIVERT 80% OF FIRST FLUSH 1/2" RETENTION OUT OF MODEL - JCS
2653          DT  RETGD2    15.8
2654          DI       0   10000
2655          DQ       0   10000
              *

2656          KK   CPGD
2657          KM   RECOMBINE SUBBASIN GD - JCS
2658          HC       2
              *
```

```
2659          KK   SUBKC   BASIN
2660          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2661          KM    L=       .8  Lca=       .4    S=   26.3  Kn= .050  LAG=  25
2662          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2663          BA   0.264
2664          LG    0.25    0.25    4.60    0.50      30
2665          UI      35     119     193     260     409     346     253     183     101      60
2666          UI      37      16      11      11      11       0       0       0       0       0
2667          UI       0       0       0       0       0       0       0       0       0       0
              *

2668          KK   RETKC
2669          KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
2670          DT   RETKC    21.8
2671          DI       0   10000
2672          DQ       0   10000
              *

2673          KK  RTKCGDROUTE      REACH
2674          KM        ROUTE FLOW FROM KC TO GD1 (ALONG EL MIRAGE RD).
2675          KM        ASSUME NEGLIGIBLE CHANNEL TRANSMISSION LOSS.
2676          KM        FUTURE ARTERIAL SECTION
2677          RS       3              -1       0
2678          RC   0.100   0.023   0.100    4090  0.0049    0.00
2679          RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
2680          RY     105     105     105   99.75   99.75     105     105     105
              *
```

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

2681          KK   SUBGC   BASIN
2682          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2683          KM    L= .8     Lca=  .4      S=   26.5     Kn= .045     LAG=  23.3
2684          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2685          KM   THIS SUBBASIN HAS BE MODIFIED TO ACCOUNT FOR EXISTING DEVELOPMENT
2686          KM   WITHOUT RETENTION. - JCS
2687          BA   0.215
2688          LG    0.28    0.26    4.70    0.34    19.7
2689          UI      31     116     178     254     368     265     189     123      57      38
2690          UI      19      10       9       9       0       0       0       0       0       0
2691          UI       0       0       0       0       0       0       0       0       0       0
              *

2692          KK   RETGC
2693          KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
2694          KM   THIS DIVERSION HAS BE MODIFIED TO ACCOUNT FOR EXISTING DEVELOPMENT
2695          KM   WITHOUT RETENTION. - JCS
2696          DT   RETGC     5.0
2697          DI       0   10000
2698          DQ       0   10000
              *
```

```
2699          KK  RTGCGD     ROUTE      REACH
2700          KM        ROUTE FLOW FROM GC TO GD1 (ALONG EL MIRAGE ROAD).
2701          KM        FUTURE ARTERIAL SECTION
2702          RS       1              -1        0
2703          RC   0.100   0.023   0.100     820  0.0049    0.00
2704          RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
2705          RY     105     105     105   99.75   99.75     105     105     105
              *

2706          KK   CPGD1
2707          KM        ADD ALL HYDROGRAPHS AT GD1.
2708          HC       3
              *

2709          KK  RTGDCB   ROUTE      REACH
2710          KM   ROUTE FLOW FROM GD1 TO CB
2711          RS       6    FLOW      -1
2712          RC   0.100   0.023   0.100    3880  0.0010    0.00
2713          RX     0.0     440     445   445.1   575.1   575.2     900  1000.0
2714          RY     105     105     105   99.75   99.75     105     105     105
              *

2715          KK  ~CPCB2
2716          KM   COMBINE FLOWS FROM CB TO CHANNEL
2717          HC       2
              *
```



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


2718          KK  MCCBCA
2719          KM   ADMP CHANNEL
2720          KM   ROUTE FLOW FROM CB TO CA.
2721          RS       8    FLOW      -1
2722          RC   0.040   0.040   0.040    5026  0.0014    0.00
2723          RX     0.0    16.0    33.7    51.4   201.4   219.4   228.1   244.1
2724          RY     5.6     5.9     3.0     0.0     0.0     3.0     5.9     5.6
              *

2725          KK  SUBCA1   BASIN
2726          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2727          KM    L=      1.0  Lca=       .5    S=     6.4  Kn= .05  LAG=  38.9
2728          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2729          KM   THIS SUBBASIN HAS BE MODIFIED TO ACCOUNT FOR EXISTING DEVELOPMENT
2730          KM   WITHOUT RETENTION. - JCS
2731          BA   0.143
2732          LG    0.26    0.15    7.60    0.14    26.9
2733          UI      12      18      47      63      75      92     124     154     120      99
2734          UI      81      65      50      29      21      17      12       7       4       4
2735          UI       4       4       4       1       0       0       0       0       0       0
2736          UI       0       0       0       0       0       0       0       0       0       0
              *
```

```
2737          KK  RETCA1
2738          KM   DIVERT 80% OF FIRST FLUSH 1/2" RETENTION OUT OF MODEL - JCS
2739          KM   THIS DIVERSION HAS BE MODIFIED TO ACCOUNT FOR EXISTING DEVELOPMENT
2740          KM   WITHOUT RETENTION. - JCS
2741          DT  RETCA1      2.4
2742          DI       0   10000
2743          DQ       0   10000
              *

2744          KK  SUBCA2   BASIN
2745          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2746          KM    L=      1.0  Lca=       .5    S=    7.8    Kn= .05    LAG=  37.4
2747          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2748          BA   0.841
2749          LG    0.30    0.15    8.80    0.09      15
2750          UI      76     123     297     297     393     474     585     829     898     566
2751          UI     448     369     247     134     124      76      63      23      23      23
2752          UI      23      23       9       0       0       0       0       0       0       0
2753          UI       0       0       0       0       0       0       0       0       0       0
              *

2754          KK  RETCA2
2755          KM   DIVERT 80% OF FIRST FLUSH 1/2" RETENTION OUT OF MODEL - JCS
2756          DT  RETCA2     17.9
2757          DI       0   10000
2758          DQ       0   10000
              *
1                                        HEC-1 INPUT                                            PAGE 76

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


2759          KK  ~CPCA1
2760          KM   COMBINE FLOWS AT CA
2761          KM   RECOMBINE SUBBASIN CA - JCS
2762          HC       3
              *

2763          KK   SUBGB   BASIN
2764          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2765          KM    L= .8      Lca= .6    S=   36.1     Kn= .05      LAG=  27.4
2766          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2767          KM   THIS SUBBASIN HAS BE MODIFIED TO ACCOUNT FOR EXISTING DEVELOPMENT
2768          KM   WITHOUT RETENTION. - JCS
2769          BA   0.221
2770          LG    0.30    0.25    4.55    0.42      15
2771          UI      27      79     139     181     260     318     230     171     127      65
2772          UI      45      27      13       8       8       8       3       0       0       0
2773          UI       0       0       0       0       0       0       0       0       0       0
              *

2774          KK   RETGB
2775          KM   DIVERT 80% REQUIRED DEVELPMENT RETENTION OUT OF MODEL - JCS
2776          KM   THIS DIVERSION HAS BE MODIFIED TO ACCOUNT FOR EXISTING DEVELOPMENT
```

```
2777           KM   WITHOUT RETENTION. - JCS
2778           DT   RETGB     8.3
2779           DI       0   10000
2780           DQ       0   10000
               *

2781           KK  RTGBCA   ROUTE      REACH
2782           KM        ROUTE FLOW FROM GB TO CA1.
2783           KM        FUTURE ARTERIAL SECTION
2784           RS       5              -1        0
2785           RC   0.040   0.040   0.040    5136  0.0014    0.00
2786           RX     0.0    16.0    33.8    51.6   166.6   184.4   202.3   218.3
2787           RY     5.6     5.9     3.0     0.0     0.0     3.0     5.9     5.6
               *

2788           KK  ~CPCA2
2789           KM        ADD HYDROGRAPHS AT CA
2790           HC       2
               *

2791           KK  P-DRCCDIVERT
2792           KM   DIVERT OVERFLOW INTO BASIN - JLM 6/18/02
2793           DT  B-DRCC
2794           DI       0      34      34    5000    9000
2795           DQ       0       0       1    4966    8966
               *
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LINE           ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

2796           KK  MCCABC   ROUTE      REACH
2797           KM   ROUTE ADMP CHANNEL FROM CA1 TO BC1
2798           RS       5    FLOW      -1
2799           RC   0.014   0.014   0.014    3914  0.0005    0.00
2800           RX     0.0    16.0    16.0    16.0    20.0    20.0    20.0    36.0
2801           RY     3.8     4.1     2.1     0.0     0.0     2.1     4.1     3.8
               *
               * KM HEC-RAS REACH
               * KM BFC
               * KM ROUTE FLOW FROM CA TO BC.
               * KM ROUTING FOR THIS REACH USES DISCHARGE-STORAGE VALUES DEVELOPED FROM THE
               * KM HEC-RAS MODEL. 06.07.00 -DCF
               * RS    11    STOR       0
               * SV     0    52.4   113.5   174.4   227.6   278.6   321.5     363   401.7      4
               * SQ     0     400     800    1200    1600    2000    2400    2800    3200     34
               *

2802           KK  SUBBC1   BASIN
2803           KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2804           KM    L=  0.22x1.7   Lca=  0.22x0.8    S=  11.5    Kn= .02    LAG=  6.3
2805           KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2806           BA   0.137
2807           LG    0.15    0.28    4.80    0.38      55
```

```
2808          UI     309      618      117      117       18        0        0        0        0        0
2809          UI       0        0        0        0        0        0        0        0        0        0
              *

2810          KK  RETBC1
2811          KM   DIVERT 80% OF FIRST FLUSH 1/2" RETENTION OUT OF MODEL - JCS
2812          DT  RETBC1      2.9
2813          DI       0    10000
2814          DQ       0    10000
              *

2815          KK  SUBBC2   BASIN
2816          KM    THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
2817          KM    L=       1.7  Lca=        .8    S=    11.5  Kn= .038  LAG=  38.3
2818          KM    VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS
2819          BA   0.493
2820          LG    0.24     0.25     5.10     0.39       31
2821          UI      55       86      214      284      340      419      573      682      523      433
2822          UI     345      284      204      116       93       68       55       21       17       17
2823          UI      17       17       15        0        0        0        0        0        0        0
2824          UI       0        0        0        0        0        0        0        0        0        0
              *

2825          KK  RETBC2
2826          KM   DIVERT 80% OF FIRST FLUSH 1/2" RETENTION OUT OF MODEL - JCS
2827          DT  RETBC2     10.5
2828          DI       0    10000
2829          DQ       0    10000
              *
```



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

2830          KK   ~CPBC
2831          KM   ADD HYDROGRAPHS AT BC1
2832          KM   RECOMBINE SUBBASIN BC - JCS
2833          HC        3
              *

2834          KK  CPAFBC
2835          KM   COMBINE FLOWS INTO AGUA FRIA RIVER AT BC
2836          HC        2
              *
              * KM       FUTURE ARTERIAL SECTION
              * RS    10                -1        0
              * RC 0.100    0.023    0.100     5700   0.0018     0.00
              * RX   0.0      440      445    445.1    575.1    575.2      900   1000.0
              * RY   105      105      105    99.75    99.75      105      105      105
              *
              *
              *
              * ***************************************************************************
              * NOTES REFERING TO CHANGES MADE TO DIBBLE MODEL HAVE BEEN OMITTED.
```

```
                                 * SEE 1084F6-IMP-R.DAT FOR NOTES. - JCS
              2837               ZZ
1
                     SCHEMATIC DIAGRAM OF STREAM NETWORK
 INPUT
  LINE          (V) ROUTING           (--->) DIVERSION OR PUMP FLOW

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

    83           SUBWD
                     V
                     V
    91          RTWDXA
                     .
                     .
    98               .         SUBXA
                     .             .
                     .             .
   105           CPXA1.............
                     .
                     .
   110               .------->    DIZZ1
   108           DIXAO
                     V
                     V
   113          RTXAWC
                     .
                     .
   120               .         SUBWB
                     .             V
                     .             V
   128               .        RTWBWC
                     .             .
                     .             .
   135               .             .         SUBWC
                     .             .             .
                     .             .             .
   142            CPWC.........................
                     .
                     .
   148               .------->     DIQE
   145          DIWCWA
                     V
                     V
   151          RTWCWA
                     .
                     .
   164               .         SUBWA
                     .             .
                     .             .
   171           CPWA1.............
                     .
                     .
   174               .         SUBVD
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                .         V
                .         V
182             .      RTVDWA
                .         .
                .         .
189          CPWA2............
                .
                .
196             .------->    DIQD
192         DIWAVC
                V
                V
199         RTWAVC
                .
                .
209             .       SUBVC
                .         .
                .         .
216          CPVC1............
                .
                .
219             .       SUBVB
                .         V
                .         V
226             .      RTVBVC
                .         .
                .         .
233          CPVC2............
                .
                .
240             .------->    DIVA
236         DIVCQA
                V
                V
243         RTVCQA
                .
                .
250             .       SUBQA
                .         .
                .         .
258          CPQA2............
                V
                V
261           RSQA
                .
                .
270             .------->    DIPF
268         DIQAPF
                V
                V
273         RTQAJH
                .
                .
280             .       SUBQE
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               .           .
               .           .
289            .           .           .<-------   DIQE
287            .           .        DRQE
               .           .           V
               .           .           V
290            .           .      RTDIQE
               .           .           .
               .           .           .
297            .        CPQE............
               .           V
               .           V
300            .        RSQE
               .           V
               .           V
306            .      RTQEQC
               .           .
               .           .
313            .           .       SUBQD
               .           .           .
               .           .           .
322            .           .           .           .<-------   DIQD
320            .           .           .        DRQD
               .           .           .           V
               .           .           .           V
323            .           .           .      RTDIQD
               .           .           .           .
               .           .           .           .
330            .           .        CPQD............
               .           .           V
               .           .           V
333            .           .        RSQD
               .           .           .
               .           .           .
341            .           .           .------->   DIQB
339            .           .      DIQDQB
               .           .           V
               .           .           V
344            .           .      RTQDQC
               .           .           .
               .           .           .
351            .           .           .       SUBQC
               .           .           .           .
               .           .           .           .
358            .        CPQC........................
               .           .
               .           .
363            .           .------->   DISR
361            .       DIQCR
               .           V
               .           V
366            .      RTQCJI
               .           .
               .           .
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373           .           .       SUBQB
              .           .           .
              .           .           .
383           .           .           .           .<-------    DIQB
381           .           .           .        DRQB
              .           .           .           V
              .           .           .           V
384           .           .           .      RTDIQB
              .           .           .           .
              .           .           .           .
390           .           .        CPQB............
              .           .           V
              .           .           V
393           .           .        RSQB
              .           .           V
              .           .           V
400           .           .      RTQBJH
              .           .           .
              .           .           .
407           .           .           .       SUBJH
              .           .           .           .
              .           .           .           .
414        CPJH....................................
              V
              V
416      RTJHJI
              .
              .
423           .       SUBJI
              .           .
              .           .
430        CPJI............
              .
              .
435           .------->   DISR1
433       DISRX
              .
              .
438           .       SUBPF
              .           .
              .           .
449           .           .------->   RETPF
445           .       RETPF
              .           .
              .           .
454           .           .           .<-------    DIPF
452           .           .        DRPF
              .           .           V
              .           .           V
455           .           .      RTDIPF
              .           .           .
              .           .           .
462           .       @CPPF............
              .           V
```

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              .            V
465           .         RSPF
              .            .
              .            .
473           .            .------->    DIPE
471           .       DIPFPE
              .            V
              .            V
476           .       RTPFJF
              .            .
              .            .
483           .            .       SUBUD
              .            .           .
              .            .           .
494           .            .           .------->   RETB1
491           .            .        RETU
              .            .           .
              .            .           .
499           .            .           .------->  59SD1D
497           .            .      SDDRUD
              .            .           .
              .            .           .
504           .            .           .------->    DIUA
502           .            .      DIUDUA
              .            .           V
              .            .           V
507           .            .      RTUDVA
              .            .           .
              .            .           .
514           .            .           .       SUBVA
              .            .           .           .
              .            .           .           .
523           .            .           .           .           .<-------    DIVA
521           .            .           .           .        DRVA
              .            .           .           .           .
              .            .           .           .           .
524           .            .       CPVA1........................
              .            .           .
              .            .           .
529           .            .           .------->  59SD2D
527           .            .      SDDRVA
              .            .           .
              .            .           .
539           .            .           .------->    DIUC
532           .            .      DIVAPE
              .            .           V
              .            .           V
542           .            .      RTVAPE
              .            .           .
              .            .           .
549           .            .           .       SUBPE
              .            .           .           .
              .            .           .           .
557           .            .           .           .           .<-------    DIPE
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555           .           .           .           .        DRPE
              .           .           .           .           V
              .           .           .           .           V
558           .           .           .           .      RTDIPE
              .           .           .           .           .
              .           .           .           .           .
565           .           .        CPPE........................
              .           .           V
              .           .           V
568           .           .        RSPE
              .           .           .
              .           .           .
576           .           .           .------->    DIPD
574           .           .      DIPEPD
              .           .           V
              .           .           V
579           .           .      RTPEJF
              .           .           .
              .           .           .
586           .           .           .       SUBJF
              .           .           .           .
              .           .           .           .
594           .        CPJF........................
              .           V
              .           V
597           .      RTJFJG
              .           .
              .           .
604           .           .       SUBJG
              .           .           .
              .           .           .
613           .        CPJG............
              .           .
              .           .
616      CPJGSR............
              .
              .
621           .           .<-------    DIUC
619           .        DRUC
              .           V
              .           V
622           .      RTVAUC
              .           V
              .           V
634           .      MCUCUC
              .           .
              .           .
642           .           .      SUBUC
              .           .           .
              .           .           .
649           .       @CPUC............
              .           .
              .           .
652           .           .      SUBTB1
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                .           .          .
                .           .          .
664             .           .          .------->   RETB1
661             .           .      RETB1
                .           .          .
                .           .          .
669             .           .          .-------> 67SD1D
667             .           .     SDDTB1
                .           .          V
                .           .          V
672             .           .     RTUAUC
                .           .          .
                .           .          .
679             .           .          .      SUBUA
                .           .          .          .
                .           .          .          .
689             .           .          .          .          .<-------    DIUA
687             .           .          .          .       DRUA
                .           .          .          .          V
                .           .          .          .          V
690             .           .          .          .     RTDIUA
                .           .          .          .          .
                .           .          .          .          .
697             .           .      @CPUA......................
                .           .          .
                .           .          .
702             .           .          .-------> 67SD1D
700             .           .     SDDRUA
                .           .          .
                .           .          .
707             .           .          .------->   DITB
705             .           .    DIUAUC
                .           .          V
                .           .          V
710             .           .    RTUAUC
                .           .          .
                .           .          .
717             .     ~CPUC2...........
                .           .
                .           .
726             .           .------->   DIUB
720             .     DIUCPC
                .           V
                .           V
729             .     RTUCPC
                .           .
                .           .
736             .           .      SUBPC
                .           .          .
                .           .          .
742             .       CPPC...........
                .           V
                .           V
745             .       RSPC
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```
                .          V
                .          V
751             .     RTPCNB
                .          .
                .          .
758             .          .       SUBNB
                .          .           .
                .          .           .
770             .          .           .------->   RETNB
767             .          .       RETNB
                .          .           .
                .          .           .
773             .      CPNB1............
                .          V
                .          V
776             .     RTNBJD
                .          .
                .          .
783             .          .       SUBPD
                .          .           .
                .          .           .
791             .          .           .           .<-------    DIPD
789             .          .           .        DRPD
                .          .           .           .
                .          .           .           .
792             .          .       CPPD2............
                .          .           V
                .          .           V
795             .          .        RSPD
                .          .           V
                .          .           V
801             .          .     RTPDNC
                .          .           .
                .          .           .
808             .          .           .       SUBNC
                .          .           .           .
                .          .           .           .
817             .          .        CPNC............
                .          .           V
                .          .           V
820             .          .     RTNCJE
                .          .           .
                .          .           .
827             .          .           .      SUBJE1
                .          .           .           .
                .          .           .           .
835             .          .       CPJE1............
                .          .           V
                .          .           V
838             .          .     RTJEJD
                .          .           .
                .          .           .
845             .          .           .       SUBJD
                .          .           .           .
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               .           .           .           .
857            .           .           .           .------->   RETJD
854            .           .           .       RETJD
               .           .           .           .
               .           .           .           .
860            .       CPJD.........................
               .           .
               .           .
865            .           .------->   DIJC2
863            .      DIJDJC
               .           V
               .           V
868            .      RTJDFC
               .           .
               .           .
875            .           .      SUBJE2
               .           .           .
               .           .           .
887            .           .           .------->   RETJE
884            .           .      RETJE2
               .           .           V
               .           .           V
890            .           .      RTJEFC
               .           .           .
               .           .           .
897            .           .           .       SUBFC
               .           .           .           .
               .           .           .           .
906            .       CPFC.........................
               .           .
               .           .
909      CPFCSR.............
               .
               .
914            .           .<-------    DIUB
912            .      DRUCUB
               .           V
               .           V
915            .      MCUCUB
               .           .
               .           .
923            .           .       SUBUB
               .           .           .
               .           .           .
933            .      ~@CPUB.............
               .           .
               .           .
936            .           .      SUBSF1
               .           .           .
               .           .           .
951            .           .           .           .<-------    DITB
949            .           .           .        DRTB
               .           .           .           V
               .           .           .           V
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952             .           .           .      RTDITB
                .           .           .           .
                .           .           .           .
960             .      CPBA3.......................
                .           .
                .           .
963             .           .      SUBTB2
                .           .           .
                .           .           .
977             .           .           .------->    RETTB
974             .           .      RETTB
                .           .           .
                .           .           .
982             .           .           .------->     DITA
980             .           .      DITBTA
                .           .           V
                .           .           V
985             .           .      RTTBSF
                .           .           .
                .           .           .
992             .           .           .      SUSFB2
                .           .           .           .
                .           .           .           .
1001            .           .           .           .      SUSF2A
                .           .           .           .            .
                .           .           .           .            .
1013            .           .           .           .            .------->  RETSF2
1010            .           .           .           .      RSSF2A
                .           .           .           .            .
                .           .           .           .            .
1016            .           .      CPSF2B......................
                .           .           .
                .           .           .
1019            .      CPBA3............
                .           V
                .           V
1022            .      BSN71
                .           .
                .           .
1031            .           .------->    BSN71
1029            .      DBSN71
                .           .
                .           .
1034            .           .      SUBPB
                .           .           .
                .           .           .
1046            .           .           .------->    RETPB
1043            .           .       RETPB
                .           .           .
                .           .           .
1049            .           .           .       PB75
                .           .           .           .
                .           .           .           .
1058            .           .           .           .       PBBU
```

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             .          .          .          .          .
1067         .          .          .     CPBSD ............
             .          .          .          .
             .          .          .          .
1072         .          .          .          .-------> SD75PB
1070         .          .          .     DPBSD1
             .          .          .          .
             .          .          .          .
1077         .          .          .          .-------> SDBRPB
1075         .          .          .     DPBSD2
             .          .          .          .
             .          .          .          .
1080         .          .      CPPB...........
             .          .          .
             .          .          .
1085         .          .          .-------> DIPA1
1083         .          .     DIPBPA
             .          .          .
             .          .          .
1088         .     CPPB1............
             .          V
             .          V
1091         .     RTPBNA
             .          .
             .          .
1098         .          .     SUBNA
             .          .          .
             .          .          .
1111         .          .          .-------> RETNA
1108         .          .      RETNA
             .          .          .
             .          .          .
1114         .          .          .       NA75
             .          .          .          .
             .          .          .          .
1123         .          .          .          .        NALB
             .          .          .          .          .
             .          .          .          .          .
1132         .          .          .      CNASD...........
             .          .          .          .
             .          .          .          .
1135         .     CPNA1 ......................
             .          .
             .          .
1140         .          .-------> SD75NA
1138         .     DNASD1
             .          .
             .          .
1145         .          .-------> SDLBNA
1143         .     DNASD2
             .          .
             .          .
1150         .          .-------> ADMP1
```

```
1148            .     DADMP1
                .           .
                .           .
1153            .           .      SUBJC1
                .           .           .
                .           .           .
1166            .           .           .------->  RETJC1
1163            .           .      RETJC1
                .           .           .
                .           .           .
1169            .           .           .        JC75
                .           .           .           .
                .           .           .           .
1178            .           .      CJCSD1............
                .           .           .
                .           .           .
1181            .           .           .      SUBJC2
                .           .           .           .
                .           .           .           .
1195            .           .           .           .------->  RETJC2
1191            .           .           .      RETJC2
                .           .           .           .
                .           .           .           .
1202            .           .           .           .------->  DETJC2
1198            .           .           .      DETJC2
                .           .           .           V
                .           .           .           V
1205            .           .           .      RTJCJC
                .           .           .           .
                .           .           .           .
1212            .           .      CPJC1A............
                .           .           .
                .           .           .
1215            .           .           .        JCBR
                .           .           .           .
                .           .           .           .
1224            .           .      CJCSD2............
                .           .           .
                .           .           .
1227            .     CPJC1B............
                .           .
                .           .
1232            .           .------->  SDOSBR
1230            .     DJC2SD
                .           .
                .           .
1237            .           .------->  SD75JC
1235            .     DJCSD1
                .           .
                .           .
1242            .           .           .<-------    DIJC2
1240            .           .       DIJD
                .           .           V
                .           .           V
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1243           .           .      RTJCJC
               .           .           .
               .           .           .
1250           .       CPJC2............
               .           .
               .           .
1255           .           .------->   DIJB2
1253           .      DIJCJB
               .           V
               .           V
1258           .      RTJCFB
               .           .
               .           .
1267           .           .           .<-------   BSN71
1265           .           .       DRB71
               .           .           V
               .           .           V
1268           .           .      RT71PB
               .           .           .
               .           .           .
1275           .           .           .           .<-------  SD75PB
1273           .           .           .      RSDPB1
               .           .           .           .
               .           .           .           .
1276           .           .      CPPBS1............
               .           .           .
               .           .           .
1281           .           .           .           .<-------  SDBRPB
1279           .           .           .      RSDPB2
               .           .           .           .
               .           .           .           .
1282           .           .      CPPBS2............
               .           .           V
               .           .           V
1285           .           .      RTPBNA
               .           .           .
               .           .           .
1291           .           .           .           .<-------  SD75NA
1289           .           .           .      RSDNA1
               .           .           .           .
               .           .           .           .
1292           .           .      CPNAS1............
               .           .           .
               .           .           .
1297           .           .           .           .<-------  SDLBNA
1295           .           .           .      RSDNA2
               .           .           .           .
               .           .           .           .
1298           .           .      CPNAS2............
               .           .           V
               .           .           V
1301           .           .      RTNAJC
               .           .           .
               .           .           .
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1307            .           .           .           .<-------  SD75JC
1305            .           .           .      RSDJC1
                .           .           .           .
                .           .           .           .
1308            .           .      CPJCS1............
                .           .           .
                .           .           .
1313            .           .           .           .<-------  SDOSBR
1311            .           .           .      RSDJC3
                .           .           .           .
                .           .           .           .
1314            .           .      CPJCS3............
                .           .           V
                .           .           V
1317            .           .      RTJCFB
                .           .           .
                .           .           .
1321            .           .           .        FB75
                .           .           .           .
                .           .           .           .
1330            .           .        CPFB............
                .           .           .
                .           .           .
1333        DUMM.........................
                .
                .
1336            .       SUBSH
                .           .
                .           .
1346            .           .------->  RETSH
1344            .       RETSH
                .           V
                .           V
1349            .        RSSH
                .           .
                .           .
1358            .           .------->  DIRJ2
1356            .      DISHRJ
                .           V
                .           V
1361            .      RTSHSG
                .           .
                .           .
1368            .           .       SUBTA
                .           .           .
                .           .           .
1379            .           .           .------->  RETTA
1377            .           .       RETTA
                .           .           .
                .           .           .
1385            .           .           .           .<-------     DITA
1382            .           .           .        DRTA
                .           .           .           V
                .           .           .           V
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1386           .           .           .      RTDITA
               .           .           .           .
               .           .           .           .
1393           .           .       @CPTA............
               .           .           V
               .           .           V
1396           .           .      RTTASG
               .           .           .
               .           .           .
1403           .           .           .       SUBSG
               .           .           .           .
               .           .           .           .
1413           .           .           .           .------->   RETSG
1411           .           .           .       RETSG
               .           .           .           .
               .           .           .           .
1416           .        CPSG........................
               .           V
               .           V
1419           .        RSSG
               .           .
               .           .
1427           .           .------->   DIRJ4
1425           .      DISGRJ
               .           V
               .           V
1430           .      RTSGSE
               .           .
               .           .
1437           .           .       SUBSC
               .           .           .
               .           .           .
1448           .           .           .------->   RETSC
1446           .           .       RETSC
               .           .           .
               .           .           .
1453           .           .           .------->    DISD
1451           .           .      DISCSD
               .           .           V
               .           .           V
1456           .           .      RTSCSE
               .           .           .
               .           .           .
1463           .           .           .       SUBSE
               .           .           .           .
               .           .           .           .
1473           .           .           .           .------->   RETSE
1471           .           .           .       RETSE
               .           .           .           .
               .           .           .           .
1476           .        CPSE........................
               .           V
               .           V
1479           .        RSSE
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               .           .
               .           .
1487           .           .------->   DIRJ5
1485           .      DISERJ
               .           V
               .           V
1490           .      RTSERI
               .           .
               .           .
1497           .           .       SUBRJ
               .           .           .
               .           .           .
1508           .           .           .------->   RETRJ
1506           .           .       RETRJ
               .           .           .
               .           .           .
1513           .           .           .           .<-------   DIRJ2
1511           .           .           .       CPRJ2
               .           .           .           V
               .           .           .           V
1514           .           .           .      RTSHRJ
               .           .           .           V
               .           .           .           V
1521           .           .           .      RTRJ3
               .           .           .           .
               .           .           .           .
1530           .           .           .           .           .<-------   DIRJ4
1528           .           .           .           .      CPRJ4A
               .           .           .           .           .
               .           .           .           .           .
1531           .           .           .      CPRJ4B............
               .           .           .           V
               .           .           .           V
1534           .           .           .      RTSGRJ
               .           .           .           .
               .           .           .           .
1543           .           .           .           .           .<-------   DIRJ5
1541           .           .           .           .       CPRJ5
               .           .           .           .           V
               .           .           .           .           V
1544           .           .           .           .      RTSERJ
               .           .           .           .           .
               .           .           .           .           .
1551           .           .      @CPRJ6........................
               .           .           V
               .           .           V
1554           .           .        RSRJ
               .           .           .
               .           .           .
1563           .           .           .------->   DIPA2
1561           .           .      DIRJPA
               .           .           V
               .           .           V
1566           .           .      RTRJRI
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          .           .           V
          .           .           V
1573      .           .      RTRIRI
          .           .           .
          .           .           .
1579      .           .           .       SUBRI
          .           .           .           .
          .           .           .           .
1589      .           .           .           .------->   RETRI
1587      .           .           .       RETRI
          .           .           .           .
          .           .           .           .
1592      .           .           .           .       SUBSB
          .           .           .           .           .
          .           .           .           .           .
1602      .           .           .           .           .------->   RETSB
1600      .           .           .           .       RETSB
          .           .           .           .           V
          .           .           .           .           V
1605      .           .           .           .        RSSB
          .           .           .           .           .
          .           .           .           .           .
1611      .           .           .           .           .       SUBSD
          .           .           .           .           .           .
          .           .           .           .           .           .
1621      .           .           .           .           .           .------->   RETSD
1619      .           .           .           .           .       RETSD
          .           .           .           .           .           .
          .           .           .           .           .           .
1626      .           .           .           .           .           .           .<-------    DISD
1624      .           .           .           .           .           .        DRSD
          .           .           .           .           .           .           .
          .           .           .           .           .           .           .
1627      .           .           .           .       @CPSD........................
          .           .           .           .           V
          .           .           .           .           V
1631      .           .           .           .        RSSD
          .           .           .           .           V
          .           .           .           .           V
1638      .           .           .           .      RTSDRI
          .           .           .           .           .
          .           .           .           .           .
1645      .      ~@CPRI....................................
          .           V
          .           V
1648      .      MCRIRH
          .           .
          .           .
1655      .           .       SUBPA
          .           .           .
          .           .           .
1666      .           .           .------->   RETPA
1664      .           .       RETPA
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                .           .           .
1671            .           .           .           .<-------     DIPA2
1669            .           .           .      DRPA2
                .           .           .           V
                .           .           .           V
1672            .           .           .     RTRJPA
                .           .           .           .
                .           .           .           .
1679            .           .        CPPA............
                .           .           .
                .           .           .
1684            .           .           .-------->    DIOE
1682            .           .      DIPAOE
                .           .           V
                .           .           V
1687            .           .      RTPAMH
                .           .           .
                .           .           .
1694            .           .           .      SUBMH
                .           .           .           .
                .           .           .           .
1704            .           .           .           .------->     RETMH
1702            .           .           .      RETMH
                .           .           .           .
                .           .           .           .
1707            .           .        CPMH............
                .           .           V
                .           .           V
1710            .           .      RTMHMD
                .           .           .
                .           .           .
1717            .           .           .      SUBMD
                .           .           .           .
                .           .           .           .
1728            .           .           .           .------->     RETMD
1726            .           .           .      RETMD
                .           .           .           .
                .           .           .           .
1731            .           .        CPMD............
                .           .           .
                .           .           .
1736            .           .           .-------->   DIJB1
1734            .           .      DIMDJB
                .           .           .
                .           .           .
1742            .           .           .-------->   DIMFX
1739            .           .      DIMDMF
                .           .           .
                .           .           .
1745            .           .           .      SUBMI
                .           .           .           .
                .           .           .           .
1755            .           .           .           .------->     RETMI
1753            .           .           .      RETMI
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                .           .            .           .
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1758            .           .            .           .      SUBMG
                .           .            .           .           .
                .           .            .           .           .
1767            .           .            .           .           .------->   RETMG
1765            .           .            .           .      RETMG
                .           .            .           .           .
                .           .            .           .           .
1770            .           .            .       CPMG.............
                .           .            .           V
                .           .            .           V
1773            .           .            .     RTMGJB
                .           .            .           .
                .           .            .           .
1781            .           .            .           .     SUBJB1
                .           .            .           .           .
                .           .            .           .           .
1793            .           .            .           .           .------->   RETJB1
1790            .           .            .           .     RETJB1
                .           .            .           .           .
                .           .            .           .           .
1798            .           .            .           .           .           .<-------   DIJB1
1796            .           .            .           .           .        DRJB
                .           .            .           .           .           V
                .           .            .           .           .           V
1799            .           .            .           .           .      RDIJB1
                .           .            .           .           .           .
                .           .            .           .           .           .
1809            .           .            .           .           .           .           .<-------   ADMP1
1806            .           .            .           .           .           .       ADMP1
                .           .            .           .           .           .           V
                .           .            .           .           .           .           V
1810            .           .            .           .           .           .      MCJCJB
                .           .            .           .           .           .           .
                .           .            .           .           .           .           .
1818            .           .      ~CPJB1.................................................
                .           .            V
                .           .            V
1822            .           .       RRJB1
                .           .            .
                .           .            .
1834            .           .            .------->   DIED
1831            .           .        DIED
                .           .            .
                .           .            .
1837            .           .            .      SUBOE
                .           .            .           .
                .           .            .           .
1848            .           .            .           .------->   RETOE
1846            .           .            .      RETOE
                .           .            .           .
                .           .            .           .
1853            .           .            .           .           .<-------   DIOE
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1851           .           .           .           .       CPOE1
               .           .           .           .           V
               .           .           .           .           V
1854           .           .           .           .      RTDIOE
               .           .           .           .           .
               .           .           .           .           .
1861           .           .           .       @CPOE............
               .           .           .           .
               .           .           .           .
1866           .           .           .           .------->    DIOD
1864           .           .           .      DIOEOD
               .           .           .           V
               .           .           .           V
1869           .           .           .      RTOEMF
               .           .           .           .
               .           .           .           .
1876           .           .           .           .       SUBMF
               .           .           .           .           .
               .           .           .           .           .
1887           .           .           .           .           .------->   RETMF
1885           .           .           .           .       RETMF
               .           .           .           .           .
               .           .           .           .           .
1892           .           .           .           .           .           .<-------   DIMFX
1890           .           .           .           .           .        CPMF
               .           .           .           .           .           V
               .           .           .           .           .           V
1893           .           .           .           .           .      RTMDMF
               .           .           .           .           .           .
               .           .           .           .           .           .
1900           .           .           .       CPMF1........................
               .           .           .           .
               .           .           .           .
1905           .           .           .           .------->    DIEB
1903           .           .           .      DIMFEB
               .           .           .           V
               .           .           .           V
1908           .           .           .      RTMFMC
               .           .           .           .
               .           .           .           .
1915           .           .           .           .       SUBOD
               .           .           .           .           .
               .           .           .           .           .
1926           .           .           .           .           .------->   RETOD
1924           .           .           .           .       RETOD
               .           .           .           .           .
               .           .           .           .           .
1931           .           .           .           .           .           .<-------    DIOD
1929           .           .           .           .           .        DROD
               .           .           .           .           .           V
               .           .           .           .           .           V
1932           .           .           .           .           .      RTDIOD
               .           .           .           .           .           .
               .           .           .           .           .           .
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1938           .           .           .           .        CPOD............
               .           .           .           .           .
               .           .           .           .           .
1943           .           .           .           .           .------->    DIOC
1941           .           .           .           .      DIODOC
               .           .           .           .           V
               .           .           .           .           V
1946           .           .           .           .      RTODMC
               .           .           .           .           .
               .           .           .           .           .
1953           .           .           .           .           .       SUBMC
               .           .           .           .           .           .
               .           .           .           .           .           .
1963           .           .           .           .           .           .------->    RETMC
1961           .           .           .           .           .       RETMC
               .           .           .           .           .           .
               .           .           .           .           .           .
1966           .           .           .       CPMC1........................
               .           .           .           .
               .           .           .           .
1971           .           .           .           .------->    DIMB
1969           .           .           .      DIMCMB
               .           .           .           V
               .           .           .           V
1974           .           .           .      RTMCIE
               .           .           .           .
               .           .           .           .
1983           .           .           .           .------->    MCIE
1981           .           .           .      DIMCIE
               .           .           .           .
               .           .           .           .
1988           .           .           .           .           .<-------    DIEB
1986           .           .           .           .        DREB
               .           .           .           .           .
               .           .           .           .           .
1989           .           .           .           .           .       SUBEB
               .           .           .           .           .           .
               .           .           .           .           .           .
1999           .           .           .           .           .           .------->    RETEB
1997           .           .           .           .           .       RETEB
               .           .           .           .           .           .
               .           .           .           .           .           .
2002           .           .           .           .        CPEB............
               .           .           .           .           .
               .           .           .           .           .
2006           .           .           .           .           .           .<--------    DIED
2004           .           .           .           .           .       RDIED
               .           .           .           .           .           V
               .           .           .           .           .           V
2007           .           .           .           .           .      RJBED1
               .           .           .           .           .           V
               .           .           .           .           .           V
2014           .           .           .           .           .      RJBED2
               .           .           .           .           .           .
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                .           .           .           .            .           .
2022            .           .           .           .            .           .      SUBED1
                .           .           .           .            .           .           .
                .           .           .           .            .           .           .
2038            .           .           .           .            .           .           .------->  RETED1
2031            .           .           .           .            .           .      RETED1
                .           .           .           .            .           .           .
                .           .           .           .            .           .           .
2041            .           .           .           .            .           .           .      SUBED2
                .           .           .           .            .           .           .           .
                .           .           .           .            .           .           .           .
2052            .           .           .           .            .           .           .           .------->  RETED2
2049            .           .           .           .            .           .           .      RETED2
                .           .           .           .            .           .           .           .
                .           .           .           .            .           .           .           .
2055            .           .           .           .            .           .      CPED1 ............
                .           .           .           .            .           .           .
                .           .           .           .            .           .           .
2058            .           .           .           .            .     ~CPED1............
                .           .           .           .            .           .
                .           .           .           .            .           .
2061            .           .           .           .      ~CPED2............
                .           .           .           .            V
                .           .           .           .            V
2064            .           .           .           .      RRED
                .           .           .           .            V
                .           .           .           .            V
2070            .           .           .           .      RT95
                .           .           .           .            V
                .           .           .           .            V
2076            .           .           .           .      95BASI
                .           .           .           .            V
                .           .           .           .            V
2086            .           .           .           .      RT99
                .           .           .           .            .
                .           .           .           .            .
2092            .           .           .           .            .     SUBID1
                .           .           .           .            .           .
                .           .           .           .            .           .
2106            .           .           .           .            .           .------->  RETID1
2102            .           .           .           .            .     RETID1
                .           .           .           .            .           .
                .           .           .           .            .           .
2109            .           .           .           .            .           .      SUBID2
                .           .           .           .            .           .           .
                .           .           .           .            .           .           .
2123            .           .           .           .            .           .           .------->  RETID2
2119            .           .           .           .            .           .      RETID2
                .           .           .           .            .           .           .
                .           .           .           .            .           .           .
2126            .           .           .           .            .           .           .      SUBIE
                .           .           .           .            .           .           .           .
                .           .           .           .            .           .           .           .
2138            .           .           .           .            .           .           .           .------->   RETIE
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2136           .           .           .           .           .           .           .       RETIE
               .           .           .           .           .           .           .           .
               .           .           .           .           .           .           .           .
2143           .           .           .           .           .           .           .           .           .<-------   MCIE
2141           .           .           .           .           .           .           .           .      DRMCIE
               .           .           .           .           .           .           .           .           .
               .           .           .           .           .           .           .           .           .
2144           .           .           .           .           .      ~CPID2....................................
               .           .           .           .           .           V
               .           .           .           .           .           V
2146           .           .           .           .           .       RRID1
               .           .           .           .           .           .
               .           .           .           .           .           .
2159           .           .           .           .       CPID3............
               .           .           .           .           V
               .           .           .           .           V
2161           .           .           .           .      RT107
               .           .           .           .           .
               .           .           .           .           .
2171           .           .           .           .           .       SUBIB
               .           .           .           .           .           .
               .           .           .           .           .           .
2184           .           .           .           .           .           .------->   RETIB
2181           .           .           .           .           .       RETIB
               .           .           .           .           .           .
               .           .           .           .           .           .
2187           .           .           .           .           .           .       SUBIC
               .           .           .           .           .           .           .
               .           .           .           .           .           .           .
2200           .           .           .           .           .           .           .------->   RETIC
2197           .           .           .           .           .           .       RETIC
               .           .           .           .           .           .           .
               .           .           .           .           .           .           .
2203           .           .           .           .           .        CPIC............
               .           .           .           .           .           .
               .           .           .           .           .           .
2206           .           .           .           .           .           .       SUBOC
               .           .           .           .           .           .           .
               .           .           .           .           .           .           .
2217           .           .           .           .           .           .           .------->   RETOC
2215           .           .           .           .           .           .       RETOC
               .           .           .           .           .           .           .
               .           .           .           .           .           .           .
2222           .           .           .           .           .           .           .           .<-------   DIOC
2220           .           .           .           .           .           .           .        DROC
               .           .           .           .           .           .           .           V
               .           .           .           .           .           .           .           V
2223           .           .           .           .           .           .           .      RTDIOC
               .           .           .           .           .           .           .           .
               .           .           .           .           .           .           .           .
2230           .           .           .           .           .           .        CPOC............
               .           .           .           .           .           .           V
               .           .           .           .           .           .           V
2233           .           .           .           .           .           .      RTOCMB
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               .           .           .           .           .           .           .
2240           .           .           .           .           .           .           .       SUBMB
               .           .           .           .           .           .           .           .
               .           .           .           .           .           .           .           .
2252           .           .           .           .           .           .           .           .------->   RETMB
2250           .           .           .           .           .           .           .       RETMB
               .           .           .           .           .           .           .           .
               .           .           .           .           .           .           .           .
2257           .           .           .           .           .           .           .           .           .<-------    DIMB
2255           .           .           .           .           .           .           .           .        DRMB
               .           .           .           .           .           .           .           .           V
               .           .           .           .           .           .           .           .           V
2258           .           .           .           .           .           .           .           .      RTDIMB
               .           .           .           .           .           .           .           .           .
               .           .           .           .           .           .           .           .           .
2265           .           .           .           .           .           .       @CPMB........................
               .           .           .           .           .           .           V
               .           .           .           .           .           .           V
2268           .           .           .           .           .           .      RTMBIB
               .           .           .           .           .           .           .
               .           .           .           .           .           .           .
2275           .           .           .           .           .       CPIB0............
               .           .           .           .           .           .
               .           .           .           .           .           .
2278           .           .           .      @CPIB2........................
               .           .           .           V
               .           .           .           V
2281           .           .           .        RRIB
               .           .           .           V
               .           .           .           V
2293           .           .           .      MCIBIA
               .           .           .           .
               .           .           .           .
2300           .           .           .           .       SUBME
               .           .           .           .           .
               .           .           .           .           .
2311           .           .           .           .           .------->   RETME
2309           .           .           .           .       RETME
               .           .           .           .           V
               .           .           .           .           V
2314           .           .           .           .      RTMEIA
               .           .           .           .           .
               .           .           .           .           .
2321           .           .           .           .           .       SUBIA
               .           .           .           .           .           .
               .           .           .           .           .           .
2336           .           .           .           .           .           .------->   RETIA
2332           .           .           .           .           .       RETIA
               .           .           .           .           .           .
               .           .           .           .           .           .
2339           .           .           .       ~CPIA........................
               .           .           .           V
               .           .           .           V
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2342           .           .           .      MCIAHB
               .           .           .           .
               .           .           .           .
2349           .           .           .           .       SUBHB
               .           .           .           .           .
               .           .           .           .           .
2364           .           .           .           .           .------->  RETHB
2360           .           .           .           .       RETHB
               .           .           .           .           .
               .           .           .           .           .           .
2367           .           .           .       CPHB1............
               .           .           .           .
               .           .           .           .
2370           .           .           .           .       SUBDA
               .           .           .           .           .
               .           .           .           .           .
2386           .           .           .           .           .------->  RETDA
2382           .           .           .           .       RETDA
               .           .           .           .           .
               .           .           .           .           .
2389           .           .           .       ~CPDA............
               .           .           .           .
               .           .           .           .
2392           .           .           .           .       SUBLD
               .           .           .           .           .
               .           .           .           .           .
2403           .           .           .           .           .------->  RETLD
2401           .           .           .           .       RETLD
               .           .           .           .           V
               .           .           .           .           V
2406           .           .           .           .      RTLDMA
               .           .           .           .           .
               .           .           .           .           .
2413           .           .           .           .           .       SUBMA
               .           .           .           .           .           .
               .           .           .           .           .           .
2424           .           .           .           .           .           .------->  RETMA
2422           .           .           .           .           .       RETMA
               .           .           .           .           .           .
               .           .           .           .           .           .
2427           .           .           .           .        CPMA............
               .           .           .           .           V
               .           .           .           .           V
2430           .           .           .           .      RTMAHB
               .           .           .           .           .
               .           .           .           .           .
2437           .           .           .       CPHB2............
               .           .           .           .
               .           .           .           .
2440           .           .           .           .       SUBLB
               .           .           .           .           .
               .           .           .           .           .
2451           .           .           .           .           .------->  RETLB
2449           .           .           .           .       RETLB
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               .           .           .           .           V
               .           .           .           .           V
2454           .           .           .           .      RTLBHA
               .           .           .           .           .
               .           .           .           .           .
2461           .           .           .           .           .      SUBHA
               .           .           .           .           .           .
               .           .           .           .           .           .
2472           .           .           .           .           .           .------->    RETHA
2470           .           .           .           .           .       RETHA
               .           .           .           .           .           .
               .           .           .           .           .           .
2475           .           .           .       CPHA.........................
               .           .           .           V
               .           .           .           V
2478           .           .           .      MCHACB
               .           .           .           .
               .           .           .           .
2485           .           .           .           .       SUBEA
               .           .           .           .           .
               .           .           .           .           .
2502           .           .           .           .           .------->    RETEA
2498           .           .           .           .       RETEA
               .           .           .           .           V
               .           .           .           .           V
2505           .           .           .           .      RTEADC
               .           .           .           .           .
               .           .           .           .           .
2513           .           .           .           .           .      SUBDC
               .           .           .           .           .           .
               .           .           .           .           .           .
2529           .           .           .           .           .           .------->    RETDC
2525           .           .           .           .           .       RETDC
               .           .           .           .           .           .
               .           .           .           .           .           .
2535           .           .           .           .           .           .------->    EXRET
2532           .           .           .           .           .       EXRET
               .           .           .           .           .           .
               .           .           .           .           .           .
2538           .           .           .           .           .           .      SUBDD
               .           .           .           .           .           .           .
               .           .           .           .           .           .           .
2552           .           .           .           .           .           .           .------->    RETDD
2548           .           .           .           .           .           .       RETDD
               .           .           .           .           .           .           V
               .           .           .           .           .           .           V
2555           .           .           .           .           .           .      RTDDDC
               .           .           .           .           .           .           .
               .           .           .           .           .           .           .
2562           .           .           .           .      ~CPDC.........................
               .           .           .           .           V
               .           .           .           .           V
2565           .           .           .           .      RTDCCC
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2573  .    .    .    .    .    SUBCC
      .    .    .    .    .        .
      .    .    .    .    .        .
2590  .    .    .    .    .        .-------->  RETCC
2585  .    .    .    .    .    RETCC
      .    .    .    .    .        .
      .    .    .    .    .        .
2593  .    .    .    .  ~CPCC............
      .    .    .    .    V
      .    .    .    .    V
2595  .    .    .    .  RTCCSC
      .    .    .    .    V
      .    .    .    .    V
2603  .    .    .    .  RTCCSC
      .    .    .    .    .
      .    .    .    .    .
2610  .    .    .    .    .    SUBCB
      .    .    .    .    .        .
      .    .    .    .    .        .
2622  .    .    .    .    .        .-------->  RETCB
2620  .    .    .    .    .    RETCB
      .    .    .    .    .        .
      .    .    .    .    .        .
2625  .    .    .  ~CPCB1......................
      .    .    .    .
      .    .    .    .
2627  .    .    .    .  SUBGD1
      .    .    .    .    .
      .    .    .    .    .
2638  .    .    .    .    .-------->  RETGD1
2636  .    .    .    .  RETGD1
      .    .    .    .    .
      .    .    .    .    .
2641  .    .    .    .    .    SUBGD2
      .    .    .    .    .        .
      .    .    .    .    .        .
2653  .    .    .    .    .        .-------->  RETGD2
2651  .    .    .    .    .    RETGD2
      .    .    .    .    .        .
      .    .    .    .    .        .
2656  .    .    .    .  CPGD ............
      .    .    .    .    .
      .    .    .    .    .
2659  .    .    .    .    .    SUBKC
      .    .    .    .    .        .
      .    .    .    .    .        .
2670  .    .    .    .    .        .-------->  RETKC
2668  .    .    .    .    .    RETKC
      .    .    .    .    .        V
      .    .    .    .    .        V
2673  .    .    .    .    .    RTKCGD
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2681   .    .    .    .    .    .    SUBGC
       .    .    .    .    .    .        .
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2696   .    .    .    .    .    .        .-------> RETGC
2692   .    .    .    .    .    .    RETGC
       .    .    .    .    .    .        V
       .    .    .    .    .    .        V
2699   .    .    .    .    .    .   RTGCGD
       .    .    .    .    .    .        .
       .    .    .    .    .    .        .
2706   .    .    .    .  CPGD1......................
       .    .    .    .       V
       .    .    .    .       V
2709   .    .    .    .  RTGDCB
       .    .    .    .       .
       .    .    .    .       .
2715   .    .    .  ~CPCB2............
       .    .    .       V
       .    .    .       V
2718   .    .    .  MCCBCA
       .    .    .       .
       .    .    .       .
2725   .    .    .       .    SUBCA1
       .    .    .       .         .
       .    .    .       .         .
2741   .    .    .       .         .-------> RETCA1
2737   .    .    .       .    RETCA1
       .    .    .       .         .
       .    .    .       .         .
2744   .    .    .       .         .    SUBCA2
       .    .    .       .         .         .
       .    .    .       .         .         .
2756   .    .    .       .         .         .-------> RETCA2
2754   .    .    .       .         .    RETCA2
       .    .    .       .         .         .
       .    .    .       .         .         .
2759   .    .    .  ~CPCA1.......................
       .    .    .       .
       .    .    .       .
2763   .    .    .       .     SUBGB
       .    .    .       .         .
       .    .    .       .         .
2778   .    .    .       .         .-------> RETGB
2774   .    .    .       .     RETGB
       .    .    .       .         V
       .    .    .       .         V
2781   .    .    .       .    RTGBCA
       .    .    .       .         .
       .    .    .       .         .
2788   .    .    .  ~CPCA2............
       .    .    .       .
       .    .    .       .
2793   .    .    .       .-------> B-DRCC
2791   .    .    .  P-DRCC
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                .         .         .         V
                .         .         .         V
 2796           .         .         .      MCCABC
                .         .         .         .
                .         .         .         .
 2802           .         .         .         .     SUBBC1
                .         .         .         .         .
                .         .         .         .         .
 2812           .         .         .         .         .-------> RETBC1
 2810           .         .         .         .     RETBC1
                .         .         .         .         .
                .         .         .         .         .
 2815           .         .         .         .         .     SUBBC2
                .         .         .         .         .         .
                .         .         .         .         .         .
 2827           .         .         .         .         .         .-------> RETBC2
 2825           .         .         .         .         .     RETBC2
                .         .         .         .         .         .
                .         .         .         .         .         .
 2830           .         .         .       ~CPBC.......................
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                .         .         .         .
 2834           .         .     CPAFBC...........
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(***) RUNOFF ALSO COMPUTED AT THIS LOCATION
1*****************************************                              *****************************************
 *                                       *                              *                                       *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *                              *   U.S. ARMY CORPS OF ENGINEERS        *
 *            JUN   1998                 *                              *   HYDROLOGIC ENGINEERING CENTER       *
 *           VERSION 4.1                 *                              *         609 SECOND STREET             *
 *                                       *                              *      DAVIS, CALIFORNIA 95616          *
 *  RUN DATE   18OCT06  TIME  16:10:08   *                              *         (916) 756-1104                *
 *                                       *                              *                                       *
 *****************************************                              *****************************************
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REC24DRCH.DAT
SEPTEMBER 2006
100-YEAR 24-HOUR
THIS REVISION MODIFIES THE FOLLOWING SUBBASINS:
Sub-basin JB2 TO routing RTEEEA REMOVED due to Tres Rios Project.
Subbasin EA:     Reduced area by 73% due to Tres Rios Project.
Changed retention volume to reflect reduced drainage area.
Subbasins CC, DD, DC, and EA: assumed medium density development for
all future development.
Routings DDCC and EADC: existing conditions routing used
insted of the proposed Sunland Channel routing.
Smaller Sunland Channel used to route CCSC and DCCC.
Moved subbasin DD to route to CPDC.
Hard coded contributing area in HC cards for ~CPCC, ~CPDC, and CPEA
due to Tres Rios diversion.
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Diverted flow from subbasins EA, DD, CC, and DC to model 100-YR 6-HR
future development retention.
by Aspen Consulting Engineers
REC24FINAL.DAT
ASPEN CONSULTING ENGINEERS, JCS and POL, JANUARY 25, 2006
24-HOUR RAINFALL
DURANGO REGIONAL CONVEYANCE CHANNEL AND SUNLAND CHANNEL
AVONDALE AND PHOENIX ARIZONA
THIS HEC-1 MODEL IS THE SAME AS THE REC24.DAT MODEL FOR THE SAME AREA,
DATED NOVEMBER 9, 2005 AND DELIVERED TO THE FCDMC ON DECEMBER 23, 2005,
WITH THE FOLLOWING CHANGES:
1.  ROUTING AT KKMCJCJB (75TH AVENUE TO 83RD AVENUE) MODIFIED TO
    ROUTE OVER DETENTION BASINS IN DRCC ALIGNMENT (THESE RETENTION BASINS
    FOR LOCAL SUBDIVISIONS ASSUMED TO BE CONVERTED TO FLOW-THROUGH
    BY NEW CULVERT IN 83RD AVENUE AT DRCC ALIGNMENT)
2.  MODIFIED PULS ROUTING AT RRJB1 (83RD AVENUE) MODIFIED TO CONFORM TO
    UPDATED CULVERT SIZE AND FIELD MEASUREMENTS OF RETENTION BASIN CAPACITY
    UPSTREAM OF 83RD AVENUE
3.  KKRJBED1 AND KKRJBED2 ROUTING ADDED TO ROUTE FLOW FROM 83RD TO 91ST.
    THIS IS 8-POINT CROSS SECTION ROUTING OVER EXISTING SUBDIVISION RETENTION
4.  RETENTION FOR SUBBASIN ED1 IS MODIFIED TO ACCOUNT FOR A PORTION OF THE
    100-YEAR 2-HOUR RETENTION REMAINING AFTER CONSTRUCTION OF A 10-YEAR
    CULVERT AT 91ST AVENUE.  THAT PORTION OF THE RETENTION UPSTREAM OF AN
    IRRIGATION CANAL LOCATED AT THE HALFWAY POINT OF THIS BASIN IS ASSUMED TO
    REMAIN IN PLACE.  THE REST IS ASSUMED TO BE CONVERTED TO DETENTION BY
    CONSTRUCTION OF A CULVERT AT 91ST AVENUE.
5.  RETENTION FOR SUBBASIN ED2 IS MODIFIED TO ASSUME 100-YEAR, 2-HOUR
    RETENTION WILL REMAIN IN PLACE AFTER CONSTRUCTION OF A CULVERT AT
    91ST AVENUE.
6.  DETENTION AT KKRRED IN DRCC ALIGNMENT AT 91ST AVENUE IS REVISED TO
    REFLECT MODIFIED BOX CULVERT AND FIELD MEASUREMENTS OF EXISTING
    RETENTION BASIN UPSTREAM OF 91ST AVENUE
7.  ROUTING USING 8-POINT CROSS SECTION ADDED FOR FLOW ALONG DRCC ALIGNMENT
    FROM 91ST AVENUE TO 107TH AVENUE.  THIS IS KKRT95, WHICH TAKES THE FLOW
    91ST TO THE 95TH BASIN, KKRT99, WHICH TAKES THE FLOW FROM 95TH BASIN
    TO 99TH, AND KKRT107, WHICH TAKES THE FLOW FROM 99TH TO 107TH.  THE ROUTI
    CHANNEL IS AN EXISTING CHANNNEL WITH 20-FOOT BOTTOM WIDTH, DEPTH
    APPROXIMATELY 7 FEET, AND TOP WIDTH APPROXIMATELY 65 FEET.  UNDER CURRENT
    CONDITIONS THIS CHANNEL ENDS APPROXIMATELY 1300 FEET UPSTREAM OF 107TH.
8.  AN IN-LINE DETENTION BASIN IS PLACED SOUTH OF THE DRCC ALIGNMENT JUST
    DOWNSTREAM OF 95TH AVENUE.  THIS IS KK95BASIN
9.  SINCE BREACHING EXISTING RETENTION BASINS IS UNLIKELY, SUBBASINS ID1 AND
    ID2 ARE ASSUMED TO HAVE 100-YEAR 2-HOUR RETENTION
10. THE MODIFIED PULS ROUTING AT 99TH (KK RRID1)IS MODIFIED TO REFLECT THE
    EXISTING BOX CULVERT AND CHANNEL AT THAT
    LOCATION
11. THE MODIFIED PULS ROUTING AT 107TH (KK  RRIB) IS MODIFIED TO REFLECT
    A REVISED BOX CULVERT AT THAT LOCATION, AS WELL AS REVISED CHANNEL
12. THE OFFLINE DETENTION BASIN AT 99TH AVENUE IS REMOVED.

66 IO          OUTPUT CONTROL VARIABLES
                     IPRNT          5  PRINT CONTROL
                     IPLOT          0  PLOT CONTROL
                     QSCAL         0.  HYDROGRAPH PLOT SCALE
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IT HYDROGRAPH TIME DATA

| | | |
|---|---|---|
| NMIN | 5 | MINUTES IN COMPUTATION INTERVAL |
| IDATE | 9MAR95 | STARTING DATE |
| ITIME | 1200 | STARTING TIME |
| NQ | 2000 | NUMBER OF HYDROGRAPH ORDINATES |
| NDDATE | 16MAR95 | ENDING DATE |
| NDTIME | 1035 | ENDING TIME |
| ICENT | 19 | CENTURY MARK |

COMPUTATION INTERVAL .08 HOURS
TOTAL TIME BASE 166.58 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 |

68 JD INDEX STORM NO. 1

| | | |
|---|---|---|
| STRM | 3.99 | PRECIPITATION DEPTH |
| TRDA | .01 | TRANSPOSITION DRAINAGE AREA |

69 PI PRECIPITATION PATTERN

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
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| .01 | .01 | .01 | .01 | .01 | .01 | .01 | .01 | .03 | .03 |
| .03 | .09 | .09 | .09 | .01 | .01 | .01 | .01 | .01 | .01 |
| .01 | .01 | .01 | .01 | .01 | .01 | .00 | .00 | .00 | .00 |
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| .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |

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| .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | | |

79 JD INDEX STORM NO. 2

STRM 3.75 PRECIPITATION DEPTH

TRDA 10.00 TRANSPOSITION DRAINAGE AREA

0 PI PRECIPITATION PATTERN

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
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| .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
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| .01 | .01 | .01 | .01 | .01 | .01 | .01 | .01 | .03 | .03 |
| .03 | .09 | .09 | .09 | .01 | .01 | .01 | .01 | .01 | .01 |
| .01 | .01 | .01 | .01 | .01 | .01 | .00 | .00 | .00 | .00 |
| .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
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| .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
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| .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | | |

80 JD INDEX STORM NO. 3

STRM 3.59 PRECIPITATION DEPTH

TRDA 30.00 TRANSPOSITION DRAINAGE AREA

0 PI PRECIPITATION PATTERN

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |
| .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 | .00 |

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              .03      .09      .09      .09      .01      .01      .01      .01      .01      .01
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              .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
              .00      .00      .00      .00      .00      .00      .00      .00

 81 JD        INDEX STORM NO. 4
                    STRM        3.43  PRECIPITATION DEPTH
                    TRDA       60.00  TRANSPOSITION DRAINAGE AREA

  0 PI          PRECIPITATION PATTERN
              .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
              .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
              .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
              .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
              .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
              .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
              .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
              .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
              .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
              .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
              .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
              .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
              .00      .00      .00      .00      .00      .00      .00      .01      .00      .01
              .01      .01      .01      .01      .01      .01      .01      .01      .03      .03
              .03      .09      .09      .09      .01      .01      .01      .01      .01      .01
              .01      .01      .01      .01      .01      .01      .00      .00      .00      .00
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              .00      .00      .00      .00      .00      .00      .00      .00
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 82 JD        INDEX STORM NO. 5
                     STRM        3.38  PRECIPITATION DEPTH
                     TRDA       90.00  TRANSPOSITION DRAINAGE AREA

  0 PI          PRECIPITATION PATTERN
                    .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                    .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                    .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                    .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                    .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                    .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                    .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                    .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                    .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                    .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
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                    .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                    .00      .00      .00      .00      .00      .00      .00      .01      .00      .01
                    .01      .01      .01      .01      .01      .01      .01      .01      .03      .03
                    .03      .09      .09      .09      .01      .01      .01      .01      .01      .01
                    .01      .01      .01      .01      .01      .01      .00      .00      .00      .00
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                    .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                    .00      .00      .00      .00      .00      .00      .00      .00
        WARNING EXCESS AT PONDING LESS THAN ZERO FOR PERIOD. EXCESS SET TO ZERO

WARNING --- ROUTED OUTFLOW (   1571.) IS GREATER THAN MAXIMUM OUTFLOW (   1525.) IN STORAGE-OUTFLOW TABLE

WARNING --- ROUTED OUTFLOW (   1557.) IS GREATER THAN MAXIMUM OUTFLOW (   1525.) IN STORAGE-OUTFLOW TABLE


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


            **************
            *            *
2538 KK     *   SUBDD    *        BASIN
            *            *
            **************

2539 KO       OUTPUT CONTROL VARIABLES
                    IPRNT          3  PRINT CONTROL
                    IPLOT          0  PLOT CONTROL
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                QSCAL         0.  HYDROGRAPH PLOT SCALE
                     THE FOLLOWING PARAMETERS WERE PROVIDED FOR THIS BASIN
                     L=       .5  Lca=       .3   S=   28.3  Kn= .050  LAG=  18.2
                     VALLEY S-GRAPH WAS USED FOR THIS BASIN - JCS

        SUBBASIN RUNOFF DATA

2543 BA       SUBBASIN CHARACTERISTICS
                TAREA         .13  SUBBASIN AREA

2544 LG       GREEN AND AMPT LOSS RATE
                STRTL         .25  STARTING LOSS
                  DTH         .25  MOISTURE DEFICIT
                 PSIF        4.70  WETTING FRONT SUCTION
                XKSAT         .40  HYDRAULIC CONDUCTIVITY
                RTIMP       30.00  PERCENT IMPERVIOUS AREA

2540 UI       INPUT UNITGRAPH,  11 ORDINATES,  VOLUME = 1.00
               34.0     115.0     178.0     281.0     193.0     123.0      53.0      30.0      10.0       8.0
                7.0

                                                      ***

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

                  HYDROGRAPH AT STATION     SUBDD
                TRANSPOSITION AREA       .0 SQ MI

    TOTAL RAINFALL =    3.99, TOTAL LOSS =    2.02, TOTAL EXCESS =    1.97

  PEAK FLOW     TIME                       MAXIMUM AVERAGE FLOW
                                 6-HR       24-HR      72-HR    166.58-HR
+   (CFS)       (HR)
                         (CFS)
+     230.     12.17               23.         7.         2.          1.
                       (INCHES)  1.621      1.969      1.970       1.970
                        (AC-FT)    11.        14.        14.         14.

                  CUMULATIVE AREA =     .13 SQ MI

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

                  HYDROGRAPH AT STATION     SUBDD
                TRANSPOSITION AREA     10.0 SQ MI

    TOTAL RAINFALL =    3.75, TOTAL LOSS =    1.93, TOTAL EXCESS =    1.82

  PEAK FLOW     TIME                       MAXIMUM AVERAGE FLOW
                                 6-HR       24-HR      72-HR    166.58-HR
+   (CFS)       (HR)
                         (CFS)
+     213.     12.17               21.         7.         2.          1.
                       (INCHES)  1.497      1.824      1.825       1.825
```

| | | | | |
|---|---|---|---|---|
| (AC-FT) | 11. | 13. | 13. | 13. |

CUMULATIVE AREA = .13 SQ MI

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

HYDROGRAPH AT STATION SUBDD
TRANSPOSITION AREA 30.0 SQ MI

TOTAL RAINFALL = 3.59, TOTAL LOSS = 1.87, TOTAL EXCESS = 1.72

| PEAK FLOW | TIME | | MAXIMUM AVERAGE FLOW | | | |
|---|---|---|---|---|---|---|
| | | | 6-HR | 24-HR | 72-HR | 166.58-HR |
| + (CFS) | (HR) | | | | | |
| | | (CFS) | | | | |
| + 201. | 12.17 | | 20. | 6. | 2. | 1. |
| | | (INCHES) | 1.414 | 1.727 | 1.728 | 1.728 |
| | | (AC-FT) | 10. | 12. | 12. | 12. |

CUMULATIVE AREA = .13 SQ MI

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

HYDROGRAPH AT STATION SUBDD
TRANSPOSITION AREA 60.0 SQ MI

TOTAL RAINFALL = 3.43, TOTAL LOSS = 1.80, TOTAL EXCESS = 1.63

| PEAK FLOW | TIME | | MAXIMUM AVERAGE FLOW | | | |
|---|---|---|---|---|---|---|
| | | | 6-HR | 24-HR | 72-HR | 166.58-HR |
| + (CFS) | (HR) | | | | | |
| | | (CFS) | | | | |
| + 190. | 12.17 | | 19. | 6. | 2. | 1. |
| | | (INCHES) | 1.330 | 1.629 | 1.630 | 1.630 |
| | | (AC-FT) | 9. | 12. | 12. | 12. |

CUMULATIVE AREA = .13 SQ MI

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

HYDROGRAPH AT STATION SUBDD
TRANSPOSITION AREA 90.0 SQ MI

TOTAL RAINFALL = 3.38, TOTAL LOSS = 1.78, TOTAL EXCESS = 1.59

| PEAK FLOW | TIME | | MAXIMUM AVERAGE FLOW | | | |
|---|---|---|---|---|---|---|
| | | | 6-HR | 24-HR | 72-HR | 166.58-HR |
| + (CFS) | (HR) | | | | | |
| | | (CFS) | | | | |
| + 185. | 12.17 | | 19. | 6. | 2. | 1. |
| | | (INCHES) | 1.301 | 1.595 | 1.596 | 1.596 |

| | | | | |
|---|---|---|---|---|
| (AC-FT) | 9. | 11. | 11. | 11. |

CUMULATIVE AREA = .13 SQ MI

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

INTERPOLATED HYDROGRAPH AT SUBDD

| | PEAK FLOW | TIME | | MAXIMUM AVERAGE FLOW | | | |
|---|---|---|---|---|---|---|---|
| | | | | 6-HR | 24-HR | 72-HR | 166.58-HR |
| + | (CFS) | (HR) | | | | | |
| | | | (CFS) | | | | |
| + | 224. | 12.17 | | 23. | 7. | 2. | 1. |
| | | | (INCHES) | 1.575 | 1.915 | 1.916 | 1.916 |
| | | | (AC-FT) | 11. | 14. | 14. | 14. |

CUMULATIVE AREA = .13 SQ MI

1

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

| | OPERATION | STATION | PEAK FLOW | TIME OF PEAK | AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR | 24-HOUR | 72-HOUR | BASIN AREA | MAXIMUM STAGE | TIME OF MAX STAGE |
|---|---|---|---|---|---|---|---|---|---|---|
| + | HYDROGRAPH AT | SUBWD | 432. | 12.50 | 65. | 18. | 6. | .39 | | |
| + | ROUTED TO | RTWDXA | 399. | 12.75 | 65. | 18. | 6. | .39 | | |
| + | HYDROGRAPH AT | SUBXA | 425. | 12.25 | 60. | 18. | 6. | .25 | | |
| + | 2 COMBINED AT | CPXA1 | 525. | 12.33 | 123. | 36. | 12. | .64 | | |
| + | DIVERSION TO | DIZZ1 | 0. | .00 | 0. | 0. | 0. | .64 | | |
| + | HYDROGRAPH AT | DIXAO | 525. | 12.33 | 123. | 36. | 12. | .64 | | |
| + | ROUTED TO | RTXAWC | 505. | 13.00 | 123. | 35. | 12. | .64 | | |
| + | HYDROGRAPH AT | SUBWB | 880. | 12.50 | 155. | 46. | 15. | .67 | | |
| | ROUTED TO | | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| + | | RTWBWC | 823. | 12.67 | 155. | 46. | 15. | .67 |
| + | HYDROGRAPH AT | SUBWC | 674. | 12.42 | 116. | 35. | 12. | .49 |
| + | 3 COMBINED AT | CPWC | 1527. | 12.67 | 388. | 115. | 38. | 1.79 |
| + | DIVERSION TO | DIQE | 0. | .00 | 0. | 0. | 0. | 1.79 |
| + | HYDROGRAPH AT | DIWCWA | 1527. | 12.67 | 388. | 115. | 38. | 1.79 |
| + | ROUTED TO | RTWCWA | 709. | 15.25 | 351. | 114. | 38. | 1.79 |
| + | HYDROGRAPH AT | SUBWA | 872. | 12.25 | 120. | 36. | 12. | .49 |
| + | 2 COMBINED AT | CPWA1 | 883. | 12.25 | 372. | 148. | 50. | 2.29 |
| + | HYDROGRAPH AT | SUBVD | 917. | 12.50 | 161. | 48. | 16. | .70 |
| + | ROUTED TO | RTVDWA | 873. | 12.50 | 160. | 48. | 16. | .70 |
| + | 2 COMBINED AT | CPWA2 | 1454. | 12.33 | 524. | 193. | 66. | 2.98 |
| + | DIVERSION TO | DIQD | 995. | 12.33 | 187. | 48. | 16. | 2.98 |
| + | HYDROGRAPH AT | DIWAVC | 459. | 12.33 | 337. | 145. | 50. | 2.98 |
| + | ROUTED TO | RTWAVC | 350. | 20.50 | 309. | 145. | 50. | 2.98 |
| + | HYDROGRAPH AT | SUBVC | 857. | 12.25 | 115. | 36. | 12. | .49 |
| + | 2 COMBINED AT | CPVC1 | 874. | 12.25 | 318. | 177. | 62. | 3.47 |
| + | HYDROGRAPH AT | SUBVB | 1299. | 12.17 | 171. | 52. | 17. | .72 |
| + | ROUTED TO | RTVBVC | 1178. | 12.25 | 171. | 52. | 17. | .72 |
| | 2 COMBINED AT | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| + | | CPVC2 | 2029. | 12.25 | 403. | 226. | 79. | 4.19 |
| + | DIVERSION TO | DIVA | 32. | 12.00 | 21. | 10. | 3. | 4.19 |
| + | HYDROGRAPH AT | DIVCQA | 1997. | 12.25 | 387. | 216. | 75. | 4.19 |
| + | ROUTED TO | RTVCQA | 1804. | 12.42 | 383. | 215. | 75. | 4.19 |
| + | HYDROGRAPH AT | SUBQA | 581. | 12.58 | 106. | 30. | 10. | .49 |
| + | 2 COMBINED AT | CPQA2 | 2313. | 12.42 | 481. | 243. | 85. | 4.68 |
| + | ROUTED TO | RSQA | 2265. | 12.50 | 480. | 243. | 85. | 4.68 |
| + | DIVERSION TO | DIPF | 650. | 12.50 | 185. | 103. | 37. | 4.68 |
| + | HYDROGRAPH AT | DIQAPF | 1616. | 12.50 | 295. | 140. | 48. | 4.68 |
| + | ROUTED TO | RTQAJH | 1386. | 13.00 | 291. | 140. | 48. | 4.68 |
| + | HYDROGRAPH AT | SUBQE | 1324. | 12.42 | 238. | 75. | 25. | .91 |
| + | HYDROGRAPH AT | DRQE | 0. | .00 | 0. | 0. | 0. | 1.79 |
| + | ROUTED TO | RTDIQE | 0. | .00 | 0. | 0. | 0. | 1.79 |
| + | 2 COMBINED AT | CPQE | 1324. | 12.42 | 238. | 75. | 25. | .91 |
| + | ROUTED TO | RSQE | 1198. | 12.50 | 236. | 70. | 23. | .91 |
| + | ROUTED TO | RTQEQC | 1107. | 12.67 | 236. | 70. | 23. | .91 |
| + | HYDROGRAPH AT | SUBQD | 439. | 12.25 | 70. | 22. | 7. | .25 |
| + | HYDROGRAPH AT | DRQD | 995. | 12.33 | 187. | 48. | 16. | 2.98 |
| | ROUTED TO | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| + | | RTDIQD | 953. | 12.50 | 183. | 48. | 16. | 2.98 |
| + | 2 COMBINED AT | CPQD | 1233. | 12.42 | 256. | 73. | 24. | .25 |
| + | ROUTED TO | RSQD | 1197. | 12.50 | 255. | 71. | 24. | .25 |
| + | DIVERSION TO | DIQB | 424. | 12.50 | 61. | 15. | 5. | .25 |
| + | HYDROGRAPH AT | DIQDQB | 773. | 12.50 | 194. | 56. | 19. | .25 |
| + | ROUTED TO | RTQDQC | 724. | 12.67 | 193. | 56. | 19. | .25 |
| + | HYDROGRAPH AT | SUBQC | 878. | 12.42 | 144. | 42. | 14. | .61 |
| + | 3 COMBINED AT | CPQC | 2332. | 12.58 | 554. | 164. | 55. | 1.77 |
| + | DIVERSION TO | DISR | 1865. | 12.58 | 443. | 131. | 44. | 1.77 |
| + | HYDROGRAPH AT | DIQCR | 466. | 12.58 | 111. | 33. | 11. | 1.77 |
| + | ROUTED TO | RTQCJI | 309. | 14.25 | 106. | 33. | 11. | 1.77 |
| + | HYDROGRAPH AT | SUBQB | 629. | 12.50 | 126. | 36. | 12. | .50 |
| + | HYDROGRAPH AT | DRQB | 424. | 12.50 | 61. | 15. | 5. | .25 |
| + | ROUTED TO | RTDIQB | 357. | 13.08 | 60. | 15. | 5. | .25 |
| + | 2 COMBINED AT | CPQB | 629. | 12.50 | 178. | 51. | 17. | .50 |
| + | ROUTED TO | RSQB | 556. | 13.17 | 166. | 46. | 15. | .50 |
| + | ROUTED TO | RTQBJH | 522. | 13.83 | 159. | 46. | 15. | .50 |
| + | HYDROGRAPH AT | SUBJH | 812. | 12.33 | 124. | 34. | 11. | .52 |
| | 4 COMBINED AT | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| + | | CPJH | 1511. | 13.00 | 623. | 247. | 84. | 7.47 |
| + | ROUTED TO | RTJHJI | 1309. | 13.75 | 617. | 247. | 84. | 7.47 |
| + | HYDROGRAPH AT | SUBJI | 563. | 12.17 | 75. | 21. | 7. | .31 |
| + | 2 COMBINED AT | CPJI | 1334. | 13.75 | 656. | 265. | 91. | 7.78 |
| + | DIVERSION TO | DISR1 | 1334. | 13.75 | 656. | 265. | 91. | 7.78 |
| + | HYDROGRAPH AT | DISRX | 0. | .00 | 0. | 0. | 0. | 7.78 |
| + | HYDROGRAPH AT | SUBPF | 947. | 12.17 | 115. | 37. | 12. | .50 |
| + | DIVERSION TO | RETPF | 10. | 4.67 | 6. | 2. | 1. | .50 |
| + | HYDROGRAPH AT | RETPF | 947. | 12.17 | 115. | 35. | 12. | .50 |
| + | HYDROGRAPH AT | DRPF | 650. | 12.50 | 185. | 103. | 37. | 4.68 |
| + | ROUTED TO | RTDIPF | 619. | 12.83 | 184. | 103. | 37. | 4.68 |
| + | 2 COMBINED AT | @CPPF | 981. | 12.17 | 279. | 136. | 48. | 5.19 |
| + | ROUTED TO | RSPF | 671. | 13.00 | 257. | 126. | 43. | 5.19 |
| + | DIVERSION TO | DIPE | 0. | .00 | 0. | 0. | 0. | 5.19 |
| + | HYDROGRAPH AT | DIPFPE | 671. | 13.00 | 257. | 126. | 43. | 5.19 |
| + | ROUTED TO | RTPFJF | 652. | 13.25 | 252. | 126. | 43. | 5.19 |
| + | HYDROGRAPH AT | SUBUD | 1637. | 12.08 | 192. | 60. | 20. | .75 |
| + | DIVERSION TO | RETB1 | 678. | 11.83 | 65. | 20. | 7. | .75 |
| | HYDROGRAPH AT | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| + | | RETU | 1637. | 12.08 | 149. | 41. | 14. | .75 |
| | DIVERSION TO | | | | | | | |
| + | | 59SD1D | 102. | 11.92 | 50. | 16. | 5. | .75 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SDDRUD | 1535. | 12.08 | 99. | 25. | 8. | .75 |
| | DIVERSION TO | | | | | | | |
| + | | DIUA | 371. | 12.08 | 24. | 6. | 2. | .75 |
| | HYDROGRAPH AT | | | | | | | |
| + | | DIUDUA | 1165. | 12.08 | 75. | 19. | 6. | .75 |
| | ROUTED TO | | | | | | | |
| + | | RTUDVA | 882. | 12.25 | 75. | 19. | 6. | .75 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBVA | 869. | 12.25 | 121. | 39. | 13. | .49 |
| | HYDROGRAPH AT | | | | | | | |
| + | | DRVA | 32. | 12.00 | 21. | 10. | 3. | 4.19 |
| | 3 COMBINED AT | | | | | | | |
| + | | CPVA1 | 1769. | 12.25 | 206. | 67. | 22. | 1.24 |
| | DIVERSION TO | | | | | | | |
| + | | 59SD2D | 59. | 11.33 | 46. | 27. | 9. | 1.24 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SDDRVA | 1710. | 12.25 | 159. | 40. | 13. | 1.24 |
| | DIVERSION TO | | | | | | | |
| + | | DIUC | 769. | 12.25 | 109. | 27. | 9. | 1.24 |
| | HYDROGRAPH AT | | | | | | | |
| + | | DIVAPE | 941. | 12.25 | 50. | 12. | 4. | 1.24 |
| | ROUTED TO | | | | | | | |
| + | | RTVAPE | 777. | 12.33 | 50. | 12. | 4. | 1.24 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBPE | 944. | 12.17 | 112. | 36. | 12. | .50 |
| | HYDROGRAPH AT | | | | | | | |
| + | | DRPE | 0. | .00 | 0. | 0. | 0. | 5.19 |
| | ROUTED TO | | | | | | | |
| + | | RTDIPE | 0. | .00 | 0. | 0. | 0. | 5.19 |
| | 3 COMBINED AT | | | | | | | |
| + | | CPPE | 1328. | 12.25 | 160. | 48. | 16. | 1.75 |
| | ROUTED TO | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| + | | RSPE | 1279. | 12.33 | 143. | 40. | 13. | 1.75 |
| + | DIVERSION TO | DIPD | 2. | 12.33 | 0. | 0. | 0. | 1.75 |
| + | HYDROGRAPH AT | DIPEPD | 1277. | 12.33 | 143. | 40. | 13. | 1.75 |
| + | ROUTED TO | RTPEJF | 1148. | 12.42 | 142. | 40. | 13. | 1.75 |
| + | HYDROGRAPH AT | SUBJF | 1097. | 12.08 | 117. | 38. | 13. | .50 |
| + | 3 COMBINED AT | CPJF | 1396. | 12.50 | 477. | 194. | 68. | 7.44 |
| + | ROUTED TO | RTJFJG | 1347. | 12.67 | 473. | 194. | 68. | 7.44 |
| + | HYDROGRAPH AT | SUBJG | 1558. | 12.17 | 210. | 66. | 22. | .90 |
| + | 2 COMBINED AT | CPJG | 2325. | 12.25 | 662. | 252. | 90. | 8.34 |
| + | 2 COMBINED AT | CPJGSR | 2257. | 12.25 | 642. | 246. | 88. | 16.11 |
| + | HYDROGRAPH AT | DRUC | 769. | 12.25 | 109. | 27. | 9. | 1.24 |
| + | ROUTED TO | RTVAUC | 360. | 13.50 | 109. | 27. | 9. | 1.24 |
| + | ROUTED TO | MCUCUC | 344. | 13.58 | 109. | 27. | 9. | 1.24 |
| + | HYDROGRAPH AT | SUBUC | 682. | 12.42 | 108. | 31. | 10. | .48 |
| + | 2 COMBINED AT | @CPUC | 674. | 12.42 | 210. | 58. | 19. | 1.73 |
| + | HYDROGRAPH AT | SUBTB1 | 329. | 12.00 | 32. | 9. | 3. | .14 |
| + | DIVERSION TO | RETB1 | 329. | 12.00 | 21. | 6. | 2. | .14 |
| + | HYDROGRAPH AT | RETB1 | 222. | 12.17 | 13. | 4. | 1. | .14 |
| | DIVERSION TO | | | | | | | |

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|---|---|---|---|---|---|---|---|---|
| + | | 67SD1D | 17. | 12.17 | 6. | 2. | 1. | .14 |
| + | HYDROGRAPH AT | SDDTB1 | 205. | 12.17 | 7. | 2. | 1. | .14 |
| + | ROUTED TO | RTUAUC | 48. | 12.50 | 7. | 2. | 1. | .14 |
| + | HYDROGRAPH AT | SUBUA | 666. | 12.58 | 121. | 34. | 11. | .56 |
| + | HYDROGRAPH AT | DRUA | 371. | 12.08 | 24. | 6. | 2. | .75 |
| + | ROUTED TO | RTDIUA | 162. | 12.58 | 24. | 6. | 2. | .75 |
| + | 3 COMBINED AT | @CPUA | 858. | 12.58 | 149. | 41. | 14. | 1.46 |
| + | DIVERSION TO | 67SD1D | 96. | 11.83 | 49. | 16. | 5. | 1.46 |
| + | HYDROGRAPH AT | SDDRUA | 762. | 12.58 | 100. | 25. | 8. | 1.46 |
| + | DIVERSION TO | DITB | 152. | 12.58 | 20. | 5. | 2. | 1.46 |
| + | HYDROGRAPH AT | DIUAUC | 609. | 12.58 | 80. | 20. | 7. | 1.46 |
| + | ROUTED TO | RTUAUC | 565. | 12.67 | 80. | 20. | 7. | 1.46 |
| + | 2 COMBINED AT | ~CPUC2 | 1011. | 12.50 | 287. | 77. | 26. | 3.19 |
| + | DIVERSION TO | DIUB | 1011. | 12.50 | 287. | 77. | 26. | 3.19 |
| + | HYDROGRAPH AT | DIUCPC | 0. | .00 | 0. | 0. | 0. | 3.19 |
| + | ROUTED TO | RTUCPC | 0. | .00 | 0. | 0. | 0. | 3.19 |
| + | HYDROGRAPH AT | SUBPC | 684. | 12.08 | 70. | 21. | 7. | .30 |
| + | 2 COMBINED AT | CPPC | 668. | 12.08 | 69. | 21. | 7. | 3.49 |
| | ROUTED TO | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|
| + | | RSPC | 17. | 13.83 | 11. | 7. | 6. | 3.49 |
| | ROUTED TO | | | | | | | |
| + | | RTPCNB | 16. | 14.67 | 11. | 7. | 6. | 3.49 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBNB | 843. | 12.08 | 76. | 21. | 7. | .44 |
| | DIVERSION TO | | | | | | | |
| + | | RETNB | 843. | 12.08 | 66. | 17. | 6. | .44 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETNB | 147. | 12.50 | 13. | 4. | 1. | .44 |
| | 2 COMBINED AT | | | | | | | |
| + | | CPNB1 | 147. | 12.50 | 21. | 10. | 7. | 3.93 |
| | ROUTED TO | | | | | | | |
| + | | RTNBJD | 46. | 13.08 | 21. | 10. | 7. | 3.93 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBPD | 856. | 12.17 | 88. | 25. | 8. | .44 |
| | HYDROGRAPH AT | | | | | | | |
| + | | DRPD | 2. | 12.33 | 0. | 0. | 0. | 1.75 |
| | 2 COMBINED AT | | | | | | | |
| + | | CPPD2 | 856. | 12.17 | 88. | 25. | 8. | .44 |
| | ROUTED TO | | | | | | | |
| + | | RSPD | 33. | 13.08 | 20. | 8. | 4. | .44 |
| | ROUTED TO | | | | | | | |
| + | | RTPDNC | 31. | 14.00 | 19. | 8. | 4. | .44 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBNC | 520. | 12.08 | 62. | 20. | 7. | .31 |
| | 2 COMBINED AT | | | | | | | |
| + | | CPNC | 515. | 12.08 | 75. | 26. | 10. | .75 |
| | ROUTED TO | | | | | | | |
| + | | RTNCJE | 351. | 12.83 | 74. | 26. | 10. | .75 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBJE1 | 528. | 12.08 | 54. | 18. | 6. | .25 |
| | 2 COMBINED AT | | | | | | | |
| + | | CPJE1 | 538. | 12.08 | 122. | 43. | 16. | 1.00 |
| | ROUTED TO | | | | | | | |
| + | | RTJEJD | 509. | 12.17 | 122. | 43. | 16. | 1.00 |
| | HYDROGRAPH AT | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| + | | SUBJD | 1067. | 12.08 | 100. | 29. | 10. | .51 |
| | DIVERSION TO | | | | | | | |
| + | | RETJD | 1067. | 12.08 | 67. | 18. | 6. | .51 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETJD | 688. | 12.25 | 40. | 11. | 4. | .51 |
| | 3 COMBINED AT | | | | | | | |
| + | | CPJD | 1075. | 12.25 | 174. | 61. | 25. | 5.44 |
| | DIVERSION TO | | | | | | | |
| + | | DIJC2 | 389. | 12.25 | 64. | 23. | 9. | 5.44 |
| | HYDROGRAPH AT | | | | | | | |
| + | | DIJDJC | 686. | 12.25 | 110. | 39. | 16. | 5.44 |
| | ROUTED TO | | | | | | | |
| + | | RTJDFC | 464. | 12.33 | 110. | 39. | 16. | 5.44 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBJE2 | 544. | 12.08 | 63. | 19. | 6. | .25 |
| | DIVERSION TO | | | | | | | |
| + | | RETJE | 15. | 10.58 | 7. | 2. | 1. | .25 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETJE2 | 544. | 12.08 | 62. | 17. | 6. | .25 |
| | ROUTED TO | | | | | | | |
| + | | RTJEFC | 427. | 12.33 | 61. | 17. | 6. | .25 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBFC | 666. | 12.08 | 82. | 26. | 9. | .36 |
| | 3 COMBINED AT | | | | | | | |
| + | | CPFC | 1258. | 12.25 | 244. | 80. | 30. | 6.05 |
| | 2 COMBINED AT | | | | | | | |
| + | | CPFCSR | 3366. | 12.25 | 857. | 315. | 115. | 22.16 |
| | HYDROGRAPH AT | | | | | | | |
| + | | DRUCUB | 1011. | 12.50 | 287. | 77. | 26. | 3.19 |
| | ROUTED TO | | | | | | | |
| + | | MCUCUB | 1008. | 12.58 | 287. | 77. | 26. | 3.19 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBUB | 221. | 12.25 | 31. | 9. | 3. | .14 |
| | 2 COMBINED AT | | | | | | | |
| + | | ~@CPUB | 1144. | 12.50 | 317. | 86. | 29. | 2.42 |
| | HYDROGRAPH AT | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| + | | SUBSF1 | 120. | 12.50 | 23. | 6. | 2. | .13 |
| | HYDROGRAPH AT | | | | | | | |
| + | | DRTB | 152. | 12.58 | 20. | 5. | 2. | 1.46 |
| | ROUTED TO | | | | | | | |
| + | | RTDITB | 147. | 12.75 | 20. | 5. | 2. | 1.46 |
| | 3 COMBINED AT | | | | | | | |
| + | | CPBA3 | 1353. | 12.58 | 358. | 96. | 32. | 2.55 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBTB2 | 835. | 12.67 | 188. | 59. | 20. | .75 |
| | DIVERSION TO | | | | | | | |
| + | | RETTB | 77. | 11.50 | 29. | 10. | 3. | .75 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETTB | 835. | 12.67 | 181. | 50. | 17. | .75 |
| | DIVERSION TO | | | | | | | |
| + | | DITA | 202. | 12.67 | 44. | 12. | 4. | .75 |
| | HYDROGRAPH AT | | | | | | | |
| + | | DITBTA | 633. | 12.67 | 136. | 37. | 12. | .75 |
| | ROUTED TO | | | | | | | |
| + | | RTTBSF | 614. | 12.83 | 135. | 37. | 12. | .75 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUSFB2 | 261. | 12.08 | 27. | 8. | 3. | .11 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUSF2A | 359. | 12.00 | 38. | 13. | 4. | .14 |
| | DIVERSION TO | | | | | | | |
| + | | RETSF2 | 359. | 12.00 | 38. | 13. | 4. | .14 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RSSF2A | 0. | .00 | 0. | 0. | 0. | .14 |
| | 3 COMBINED AT | | | | | | | |
| + | | CPSF2B | 631. | 12.83 | 159. | 45. | 15. | 1.00 |
| | 2 COMBINED AT | | | | | | | |
| + | | CPBA3 | 1890. | 12.67 | 513. | 140. | 47. | 3.55 |
| | ROUTED TO | | | | | | | |
| + | | BSN71 | 92. | 16.58 | 92. | 89. | 47. | 3.55 |
| | DIVERSION TO | | | | | | | |
| + | | BSN71 | 92. | 16.58 | 92. | 89. | 47. | 3.55 |
| | HYDROGRAPH AT | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| + | | DBSN71 | 0. | .00 | 0. | 0. | 0. | 3.55 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBPB | 827. | 12.17 | 103. | 33. | 11. | .41 |
| | DIVERSION TO | | | | | | | |
| + | | RETPB | 827. | 12.17 | 79. | 22. | 7. | .41 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETPB | 298. | 12.42 | 36. | 11. | 4. | .41 |
| | HYDROGRAPH AT | | | | | | | |
| + | | PB75 | 27. | 12.00 | 3. | 1. | 0. | .01 |
| | HYDROGRAPH AT | | | | | | | |
| + | | PBBU | 46. | 12.08 | 6. | 2. | 1. | .02 |
| | 2 COMBINED AT | | | | | | | |
| + | | CPBSD | 69. | 12.08 | 9. | 3. | 1. | .03 |
| | DIVERSION TO | | | | | | | |
| + | | SD75PB | 23. | 11.83 | 6. | 2. | 1. | .03 |
| | HYDROGRAPH AT | | | | | | | |
| + | | DPBSD1 | 46. | 12.08 | 2. | 1. | 0. | .03 |
| | DIVERSION TO | | | | | | | |
| + | | SDBRPB | 39. | 12.08 | 2. | 1. | 0. | .03 |
| | HYDROGRAPH AT | | | | | | | |
| + | | DPBSD2 | 7. | 12.08 | 0. | 0. | 0. | .03 |
| | 2 COMBINED AT | | | | | | | |
| + | | CPPB | 298. | 12.42 | 36. | 11. | 4. | .44 |
| | DIVERSION TO | | | | | | | |
| + | | DIPA1 | 57. | 12.42 | 7. | 2. | 1. | .44 |
| | HYDROGRAPH AT | | | | | | | |
| + | | DIPBPA | 241. | 12.42 | 29. | 9. | 3. | .44 |
| | 2 COMBINED AT | | | | | | | |
| + | | CPPB1 | 236. | 12.42 | 27. | 8. | 3. | 3.99 |
| | ROUTED TO | | | | | | | |
| + | | RTPBNA | 79. | 13.08 | 26. | 8. | 3. | 3.99 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBNA | 1593. | 12.25 | 225. | 70. | 23. | .94 |
| | DIVERSION TO | | | | | | | |
| + | | RETNA | 1593. | 12.25 | 165. | 45. | 15. | .94 |
| | HYDROGRAPH AT | | | | | | | |

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|---|---|---|---|---|---|---|---|---|
| + | | RETNA | 860. | 12.50 | 86. | 25. | 8. | .94 |
| + | HYDROGRAPH AT | NA75 | 48. | 12.08 | 6. | 2. | 1. | .02 |
| + | HYDROGRAPH AT | NALB | 45. | 12.08 | 6. | 2. | 1. | .02 |
| + | 2 COMBINED AT | CNASD | 92. | 12.08 | 11. | 4. | 1. | .04 |
| + | 3 COMBINED AT | CPNA1 | 864. | 12.50 | 113. | 36. | 12. | 4.97 |
| + | DIVERSION TO | SD75NA | 40. | 11.92 | 39. | 17. | 6. | 4.97 |
| + | HYDROGRAPH AT | DNASD1 | 824. | 12.50 | 74. | 18. | 6. | 4.97 |
| + | DIVERSION TO | SDLBNA | 38. | 12.08 | 20. | 5. | 2. | 4.97 |
| + | HYDROGRAPH AT | DNASD2 | 786. | 12.50 | 54. | 13. | 4. | 4.97 |
| + | DIVERSION TO | ADMP1 | 786. | 12.50 | 54. | 13. | 4. | 4.97 |
| + | HYDROGRAPH AT | DADMP1 | 0. | .00 | 0. | 0. | 0. | 4.97 |
| + | HYDROGRAPH AT | SUBJC1 | 810. | 12.17 | 95. | 28. | 9. | .47 |
| + | DIVERSION TO | RETJC1 | 810. | 12.17 | 67. | 18. | 6. | .47 |
| + | HYDROGRAPH AT | RETJC1 | 474. | 12.42 | 36. | 10. | 3. | .47 |
| + | HYDROGRAPH AT | JC75 | 49. | 12.08 | 6. | 2. | 1. | .02 |
| + | 2 COMBINED AT | CJCSD1 | 485. | 12.42 | 40. | 12. | 4. | .49 |
| + | HYDROGRAPH AT | SUBJC2 | 807. | 12.17 | 79. | 20. | 7. | .48 |
| + | DIVERSION TO | RETJC2 | 751. | 12.17 | 39. | 10. | 3. | .48 |
| | HYDROGRAPH AT | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| + | | RETJC2 | 725. | 12.25 | 39. | 10. | 3. | .48 |
| + | DIVERSION TO | DETJC2 | 725. | 12.25 | 33. | 8. | 3. | .48 |
| + | HYDROGRAPH AT | DETJC2 | 89. | 12.58 | 6. | 1. | 0. | .48 |
| + | ROUTED TO | RTJCJC | 35. | 13.00 | 6. | 1. | 0. | .48 |
| + | 2 COMBINED AT | CPJC1A | 481. | 12.42 | 44. | 13. | 4. | .97 |
| + | HYDROGRAPH AT | JCBR | 48. | 12.08 | 6. | 2. | 1. | .02 |
| + | 2 COMBINED AT | CJCSD2 | 492. | 12.42 | 50. | 15. | 5. | .99 |
| + | 2 COMBINED AT | CPJC1B | 483. | 12.42 | 45. | 14. | 5. | 5.96 |
| + | DIVERSION TO | SDOSBR | 41. | 11.92 | 22. | 8. | 3. | 5.96 |
| + | HYDROGRAPH AT | DJC2SD | 442. | 12.42 | 23. | 6. | 2. | 5.96 |
| + | DIVERSION TO | SD75JC | 42. | 12.08 | 8. | 2. | 1. | 5.96 |
| + | HYDROGRAPH AT | DJCSD1 | 400. | 12.42 | 15. | 4. | 1. | 5.96 |
| + | HYDROGRAPH AT | DIJD | 389. | 12.25 | 64. | 23. | 9. | 5.44 |
| + | ROUTED TO | RTJCJC | 200. | 12.67 | 63. | 23. | 9. | 5.44 |
| + | 2 COMBINED AT | CPJC2 | 459. | 12.42 | 77. | 26. | 10. | 8.11 |
| + | DIVERSION TO | DIJB2 | 208. | 12.42 | 35. | 12. | 5. | 8.11 |
| + | HYDROGRAPH AT | DIJCJB | 251. | 12.42 | 41. | 14. | 6. | 8.11 |
| + | ROUTED TO | RTJCFB | 127. | 12.92 | 41. | 14. | 6. | 8.11 |
| | HYDROGRAPH AT | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| + | | DRB71 | 92. | 16.58 | 92. | 89. | 47. | 3.55 |
| | ROUTED TO | | | | | | | |
| + | | RT71PB | 92. | 16.75 | 92. | 89. | 47. | 3.55 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RSDPB1 | 23. | 11.83 | 6. | 2. | 1. | .03 |
| | 2 COMBINED AT | | | | | | | |
| + | | CPPBS1 | 94. | 13.75 | 93. | 90. | 48. | 3.99 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RSDPB2 | 39. | 12.08 | 2. | 1. | 0. | .03 |
| | 2 COMBINED AT | | | | | | | |
| + | | CPPBS2 | 111. | 12.08 | 93. | 90. | 48. | 3.99 |
| | ROUTED TO | | | | | | | |
| + | | RTPBNA | 111. | 12.25 | 93. | 90. | 48. | 3.99 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RSDNA1 | 40. | 11.92 | 39. | 17. | 6. | 4.97 |
| | 2 COMBINED AT | | | | | | | |
| + | | CPNAS1 | 151. | 12.25 | 132. | 106. | 53. | 4.97 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RSDNA2 | 38. | 12.08 | 20. | 5. | 2. | 4.97 |
| | 2 COMBINED AT | | | | | | | |
| + | | CPNAS2 | 186. | 12.17 | 151. | 111. | 55. | 4.97 |
| | ROUTED TO | | | | | | | |
| + | | RTNAJC | 186. | 12.33 | 151. | 111. | 55. | 4.97 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RSDJC1 | 42. | 12.08 | 8. | 2. | 1. | 5.96 |
| | 2 COMBINED AT | | | | | | | |
| + | | CPJCS1 | 228. | 12.33 | 158. | 113. | 56. | 5.96 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RSDJC3 | 41. | 11.92 | 22. | 8. | 3. | 5.96 |
| | 2 COMBINED AT | | | | | | | |
| + | | CPJCS3 | 269. | 12.33 | 180. | 120. | 58. | 5.96 |
| | ROUTED TO | | | | | | | |
| + | | RTJCFB | 269. | 12.50 | 180. | 120. | 58. | 5.96 |
| | HYDROGRAPH AT | | | | | | | |
| + | | FB75 | 43. | 12.08 | 5. | 2. | 1. | .02 |
| | 2 COMBINED AT | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| + | | CPFB | 275. | 12.50 | 182. | 121. | 59. | 5.98 |
| + | 3 COMBINED AT | DUMM | 3447. | 12.25 | 1024. | 426. | 170. | 36.25 |
| + | HYDROGRAPH AT | SUBSH | 245. | 12.08 | 26. | 8. | 3. | .10 |
| + | DIVERSION TO | RETSH | 245. | 12.08 | 19. | 5. | 2. | .10 |
| + | HYDROGRAPH AT | RETSH | 103. | 12.25 | 10. | 3. | 1. | .10 |
| + | ROUTED TO | RSSH | 0. | .00 | 0. | 0. | 0. | .10 |
| + | DIVERSION TO | DIRJ2 | 0. | .00 | 0. | 0. | 0. | .10 |
| + | HYDROGRAPH AT | DISHRJ | 0. | .00 | 0. | 0. | 0. | .10 |
| + | ROUTED TO | RTSHSG | 0. | .00 | 0. | 0. | 0. | .10 |
| + | HYDROGRAPH AT | SUBTA | 474. | 12.17 | 56. | 18. | 6. | .24 |
| + | DIVERSION TO | RETTA | 474. | 12.17 | 44. | 12. | 4. | .24 |
| + | HYDROGRAPH AT | RETTA | 168. | 12.42 | 19. | 6. | 2. | .24 |
| + | HYDROGRAPH AT | DRTA | 202. | 12.67 | 44. | 12. | 4. | .75 |
| + | ROUTED TO | RTDITA | 179. | 13.17 | 44. | 12. | 4. | .75 |
| + | 2 COMBINED AT | @CPTA | 203. | 13.17 | 61. | 18. | 6. | 1.13 |
| + | ROUTED TO | RTTASG | 196. | 13.33 | 60. | 18. | 6. | 1.13 |
| + | HYDROGRAPH AT | SUBSG | 276. | 12.17 | 33. | 11. | 4. | .14 |
| + | DIVERSION TO | RETSG | 276. | 12.17 | 25. | 7. | 2. | .14 |
| | HYDROGRAPH AT | | | | | | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| + | | RETSG | 127. | 12.33 | 13. | 4. | 1. | .14 |
| | 3 COMBINED AT | | | | | | | |
| + | | CPSG | 209. | 13.33 | 71. | 21. | 7. | 1.37 |
| | ROUTED TO | | | | | | | |
| + | | RSSG | 164. | 13.75 | 47. | 15. | 5. | 1.37 |
| | DIVERSION TO | | | | | | | |
| + | | DIRJ4 | 110. | 13.75 | 27. | 7. | 2. | 1.37 |
| | HYDROGRAPH AT | | | | | | | |
| + | | DISGRJ | 54. | 13.75 | 20. | 8. | 3. | 1.37 |
| | ROUTED TO | | | | | | | |
| + | | RTSGSE | 49. | 14.00 | 20. | 8. | 3. | 1.37 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBSC | 709. | 12.25 | 99. | 33. | 11. | .45 |
| | DIVERSION TO | | | | | | | |
| + | | RETSC | 709. | 12.25 | 82. | 23. | 8. | .45 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETSC | 175. | 12.67 | 30. | 10. | 3. | .45 |
| | DIVERSION TO | | | | | | | |
| + | | DISD | 95. | 12.67 | 17. | 5. | 2. | .45 |
| | HYDROGRAPH AT | | | | | | | |
| + | | DISCSD | 81. | 12.67 | 14. | 4. | 1. | .45 |
| | ROUTED TO | | | | | | | |
| + | | RTSCSE | 51. | 12.75 | 14. | 4. | 1. | .45 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBSE | 308. | 12.00 | 27. | 9. | 3. | .13 |
| | DIVERSION TO | | | | | | | |
| + | | RETSE | 308. | 12.00 | 23. | 6. | 2. | .13 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETSE | 55. | 12.17 | 8. | 3. | 1. | .13 |
| | 3 COMBINED AT | | | | | | | |
| + | | CPSE | 71. | 14.00 | 37. | 14. | 5. | 1.95 |
| | ROUTED TO | | | | | | | |
| + | | RSSE | 19. | 18.08 | 16. | 8. | 5. | 1.95 |
| | DIVERSION TO | | | | | | | |
| + | | DIRJ5 | 19. | 18.08 | 16. | 8. | 5. | 1.95 |
| | HYDROGRAPH AT | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| + | | DISERJ | 0. | .00 | 0. | 0. | 0. | 1.95 |
| | ROUTED TO | | | | | | | |
| + | | RTSERI | 0. | .00 | 0. | 0. | 0. | 1.95 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBRJ | 303. | 12.17 | 38. | 12. | 4. | .16 |
| | DIVERSION TO | | | | | | | |
| + | | RETRJ | 303. | 12.17 | 30. | 8. | 3. | .16 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETRJ | 105. | 12.42 | 13. | 4. | 1. | .16 |
| | HYDROGRAPH AT | | | | | | | |
| + | | CPRJ2 | 0. | .00 | 0. | 0. | 0. | .10 |
| | ROUTED TO | | | | | | | |
| + | | RTSHRJ | 0. | .00 | 0. | 0. | 0. | .10 |
| | ROUTED TO | | | | | | | |
| + | | RTRJ3 | 0. | .00 | 0. | 0. | 0. | .10 |
| | HYDROGRAPH AT | | | | | | | |
| + | | CPRJ4A | 110. | 13.75 | 27. | 7. | 2. | 1.37 |
| | 2 COMBINED AT | | | | | | | |
| + | | CPRJ4B | 114. | 13.67 | 28. | 8. | 3. | .39 |
| | ROUTED TO | | | | | | | |
| + | | RTSGRJ | 99. | 14.00 | 28. | 8. | 3. | .39 |
| | HYDROGRAPH AT | | | | | | | |
| + | | CPRJ5 | 19. | 18.08 | 16. | 8. | 5. | 1.95 |
| | ROUTED TO | | | | | | | |
| + | | RTSERJ | 18. | 19.00 | 15. | 8. | 5. | 1.95 |
| | 3 COMBINED AT | | | | | | | |
| + | | @CPRJ6 | 104. | 14.00 | 41. | 18. | 8. | 3.81 |
| | ROUTED TO | | | | | | | |
| + | | RSRJ | 62. | 14.83 | 38. | 18. | 8. | 3.81 |
| | DIVERSION TO | | | | | | | |
| + | | DIPA2 | 0. | .00 | 0. | 0. | 0. | 3.81 |
| | HYDROGRAPH AT | | | | | | | |
| + | | DIRJPA | 62. | 14.83 | 38. | 18. | 8. | 3.81 |
| | ROUTED TO | | | | | | | |
| + | | RTRJRI | 59. | 15.33 | 38. | 18. | 8. | 3.81 |
| | ROUTED TO | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| + | | RTRIRI | 58. | 15.58 | 38. | 18. | 8. | 3.81 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBRI | 542. | 12.00 | 55. | 18. | 6. | .23 |
| | DIVERSION TO | | | | | | | |
| + | | RETRI | 542. | 12.00 | 42. | 12. | 4. | .23 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETRI | 189. | 12.25 | 19. | 6. | 2. | .23 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBSB | 394. | 12.08 | 42. | 13. | 4. | .17 |
| | DIVERSION TO | | | | | | | |
| + | | RETSB | 394. | 12.08 | 31. | 8. | 3. | .17 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETSB | 182. | 12.25 | 16. | 5. | 2. | .17 |
| | ROUTED TO | | | | | | | |
| + | | RSSB | 31. | 12.83 | 12. | 4. | 1. | .17 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBSD | 357. | 12.08 | 38. | 12. | 4. | .17 |
| | DIVERSION TO | | | | | | | |
| + | | RETSD | 357. | 12.08 | 31. | 8. | 3. | .17 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETSD | 100. | 12.33 | 12. | 4. | 1. | .17 |
| | HYDROGRAPH AT | | | | | | | |
| + | | DRSD | 95. | 12.67 | 17. | 5. | 2. | .45 |
| | 3 COMBINED AT | | | | | | | |
| + | | @CPSD | 149. | 12.67 | 39. | 12. | 4. | .79 |
| | ROUTED TO | | | | | | | |
| + | | RSSD | 148. | 12.67 | 39. | 12. | 4. | .79 |
| | ROUTED TO | | | | | | | |
| + | | RTSDRI | 106. | 13.00 | 38. | 12. | 4. | .79 |
| | 4 COMBINED AT | | | | | | | |
| + | | ~@CPRI | 183. | 12.25 | 81. | 35. | 14. | 4.38 |
| | ROUTED TO | | | | | | | |
| + | | MCRIRH | 110. | 13.33 | 79. | 35. | 14. | 4.38 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBPA | 838. | 12.17 | 111. | 36. | 12. | .48 |
| | DIVERSION TO | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | + | RETPA | 838. | 12.17 | 87. | 24. | 8. | .48 |
| HYDROGRAPH AT | + | RETPA | 332. | 12.50 | 38. | 12. | 4. | .48 |
| HYDROGRAPH AT | + | DRPA2 | 0. | .00 | 0. | 0. | 0. | 3.81 |
| ROUTED TO | + | RTRJPA | 0. | .00 | 0. | 0. | 0. | 3.81 |
| 2 COMBINED AT | + | CPPA | 332. | 12.50 | 38. | 12. | 4. | .48 |
| DIVERSION TO | + | DIOE | 60. | 12.50 | 7. | 2. | 1. | .48 |
| HYDROGRAPH AT | + | DIPAOE | 272. | 12.50 | 31. | 9. | 3. | .48 |
| ROUTED TO | + | RTPAMH | 112. | 12.83 | 30. | 9. | 3. | .48 |
| HYDROGRAPH AT | + | SUBMH | 443. | 12.17 | 51. | 15. | 5. | .24 |
| DIVERSION TO | + | RETMH | 443. | 12.17 | 37. | 10. | 3. | .24 |
| HYDROGRAPH AT | + | RETMH | 218. | 12.42 | 17. | 5. | 2. | .24 |
| 2 COMBINED AT | + | CPMH | 217. | 12.42 | 46. | 14. | 5. | .72 |
| ROUTED TO | + | RTMHMD | 135. | 13.08 | 44. | 14. | 5. | .72 |
| HYDROGRAPH AT | + | SUBMD | 311. | 12.50 | 56. | 16. | 5. | .25 |
| DIVERSION TO | + | RETMD | 311. | 12.50 | 40. | 11. | 4. | .25 |
| HYDROGRAPH AT | + | RETMD | 170. | 12.92 | 20. | 6. | 2. | .25 |
| 2 COMBINED AT | + | CPMD | 289. | 12.92 | 63. | 19. | 6. | .97 |
| DIVERSION TO | + | DIJB1 | 60. | 12.92 | 13. | 4. | 1. | .97 |
| HYDROGRAPH AT | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| + | | DIMDJB | 230. | 12.92 | 50. | 15. | 5. | .97 |
| + | DIVERSION TO | DIMFX | 230. | 12.92 | 50. | 15. | 5. | .97 |
| + | HYDROGRAPH AT | DIMDMF | 0. | .00 | 0. | 0. | 0. | .97 |
| + | HYDROGRAPH AT | SUBMI | 801. | 12.17 | 89. | 27. | 9. | .41 |
| + | DIVERSION TO | RETMI | 801. | 12.17 | 66. | 18. | 6. | .41 |
| + | HYDROGRAPH AT | RETMI | 382. | 12.33 | 31. | 9. | 3. | .41 |
| + | HYDROGRAPH AT | SUBMG | 189. | 12.08 | 18. | 6. | 2. | .08 |
| + | DIVERSION TO | RETMG | 189. | 12.08 | 14. | 4. | 1. | .08 |
| + | HYDROGRAPH AT | RETMG | 76. | 12.25 | 6. | 2. | 1. | .08 |
| + | 2 COMBINED AT | CPMG | 419. | 12.33 | 37. | 11. | 4. | .49 |
| + | ROUTED TO | RTMGJB | 139. | 13.17 | 35. | 11. | 4. | .49 |
| + | HYDROGRAPH AT | SUBJB1 | 501. | 12.50 | 81. | 25. | 8. | .49 |
| + | DIVERSION TO | RETJB1 | 162. | 12.00 | 17. | 5. | 2. | .49 |
| + | HYDROGRAPH AT | RETJB1 | 501. | 12.50 | 73. | 20. | 7. | .49 |
| + | HYDROGRAPH AT | DRJB | 60. | 12.92 | 13. | 4. | 1. | .97 |
| + | ROUTED TO | RDIJB1 | 43. | 13.50 | 13. | 4. | 1. | .97 |
| + | HYDROGRAPH AT | ADMP1 | 786. | 12.50 | 54. | 13. | 4. | 4.97 |
| + | ROUTED TO | MCJCJB | 187. | 13.67 | 54. | 13. | 4. | 4.97 |
| | 5 COMBINED AT | | | | | | | |

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|---|---|---|---|---|---|---|---|---|
| + | | ~CPJB1 | 494. | 12.50 | 174. | 48. | 16. | 9.37 |
| + | ROUTED TO | RRJB1 | 272. | 13.92 | 153. | 45. | 15. | 9.37 |
| + | DIVERSION TO | DIED | 272. | 13.92 | 153. | 45. | 15. | 9.37 |
| + | HYDROGRAPH AT | DIED | 0. | .00 | 0. | 0. | 0. | 9.37 |
| + | HYDROGRAPH AT | SUBOE | 812. | 12.17 | 104. | 34. | 11. | .47 |
| + | DIVERSION TO | RETOE | 812. | 12.17 | 86. | 24. | 8. | .47 |
| + | HYDROGRAPH AT | RETOE | 194. | 12.58 | 32. | 10. | 3. | .47 |
| + | HYDROGRAPH AT | CPOE1 | 60. | 12.50 | 7. | 2. | 1. | .48 |
| + | ROUTED TO | RTDIOE | 17. | 14.00 | 7. | 2. | 1. | .48 |
| + | 2 COMBINED AT | @CPOE | 194. | 12.58 | 38. | 12. | 4. | .47 |
| + | DIVERSION TO | DIOD | 33. | 12.58 | 6. | 2. | 1. | .47 |
| + | HYDROGRAPH AT | DIOEOD | 161. | 12.58 | 32. | 10. | 3. | .47 |
| + | ROUTED TO | RTOEMF | 57. | 13.33 | 30. | 10. | 3. | .47 |
| + | HYDROGRAPH AT | SUBMF | 1112. | 12.58 | 201. | 59. | 20. | .97 |
| + | DIVERSION TO | RETMF | 1112. | 12.58 | 152. | 40. | 13. | .97 |
| + | HYDROGRAPH AT | RETMF | 560. | 13.00 | 65. | 19. | 6. | .97 |
| + | HYDROGRAPH AT | CPMF | 230. | 12.92 | 50. | 15. | 5. | .97 |
| + | ROUTED TO | RTMDMF | 151. | 13.67 | 48. | 15. | 5. | .97 |
| | 3 COMBINED AT | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|
| + | | CPMF1 | 590. | 13.00 | 139. | 43. | 14. | 1.44 |
| + | DIVERSION TO | DIEB | 274. | 13.00 | 65. | 20. | 7. | 1.44 |
| + | HYDROGRAPH AT | DIMFEB | 317. | 13.00 | 74. | 23. | 8. | 1.44 |
| + | ROUTED TO | RTMFMC | 188. | 13.75 | 70. | 23. | 8. | 1.44 |
| + | HYDROGRAPH AT | SUBOD | 939. | 12.17 | 126. | 40. | 13. | .51 |
| + | DIVERSION TO | RETOD | 939. | 12.17 | 117. | 32. | 11. | .51 |
| + | HYDROGRAPH AT | RETOD | 58. | 12.83 | 23. | 8. | 3. | .51 |
| + | HYDROGRAPH AT | DROD | 33. | 12.58 | 6. | 2. | 1. | .47 |
| + | ROUTED TO | RTDIOD | 14. | 13.33 | 6. | 2. | 1. | .47 |
| + | 2 COMBINED AT | CPOD | 71. | 13.42 | 29. | 10. | 3. | .51 |
| + | DIVERSION TO | DIOC | 13. | 13.42 | 6. | 2. | 1. | .51 |
| + | HYDROGRAPH AT | DIODOC | 58. | 13.42 | 23. | 8. | 3. | .51 |
| + | ROUTED TO | RTODMC | 37. | 14.67 | 22. | 8. | 3. | .51 |
| + | HYDROGRAPH AT | SUBMC | 1491. | 12.33 | 245. | 79. | 26. | 1.00 |
| + | DIVERSION TO | RETMC | 1491. | 12.33 | 172. | 48. | 16. | 1.00 |
| + | HYDROGRAPH AT | RETMC | 951. | 12.58 | 104. | 31. | 10. | 1.00 |
| + | 3 COMBINED AT | CPMC1 | 932. | 12.58 | 182. | 60. | 20. | 2.95 |
| + | DIVERSION TO | DIMB | 356. | 12.58 | 71. | 23. | 8. | 2.95 |
| | HYDROGRAPH AT | | | | | | | |

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|---|---|---|---|---|---|---|---|---|
| + | | DIMCMB | 576. | 12.58 | 112. | 37. | 12. | 2.95 |
| + | ROUTED TO | RTMCIE | 360. | 12.75 | 109. | 37. | 12. | 2.95 |
| + | DIVERSION TO | MCIE | 360. | 12.75 | 109. | 37. | 12. | 2.95 |
| + | HYDROGRAPH AT | DIMCIE | 0. | .00 | 0. | 0. | 0. | 2.95 |
| + | HYDROGRAPH AT | DREB | 274. | 13.00 | 65. | 20. | 7. | 1.44 |
| + | HYDROGRAPH AT | SUBEB | 224. | 12.25 | 26. | 8. | 3. | .14 |
| + | DIVERSION TO | RETEB | 224. | 12.25 | 22. | 6. | 2. | .14 |
| + | HYDROGRAPH AT | RETEB | 58. | 12.50 | 6. | 2. | 1. | .14 |
| + | 2 COMBINED AT | CPEB | 302. | 13.00 | 76. | 24. | 8. | .14 |
| + | HYDROGRAPH AT | RDIED | 272. | 13.92 | 153. | 45. | 15. | 9.37 |
| + | ROUTED TO | RJBED1 | 269. | 14.33 | 150. | 45. | 15. | 9.37 |
| + | ROUTED TO | RJBED2 | 264. | 14.92 | 147. | 45. | 15. | 9.37 |
| + | HYDROGRAPH AT | SUBED1 | 384. | 12.50 | 65. | 20. | 7. | .38 |
| + | DIVERSION TO | RETED1 | 370. | 12.50 | 36. | 10. | 3. | .38 |
| + | HYDROGRAPH AT | RETED1 | 341. | 12.67 | 35. | 10. | 3. | .38 |
| + | HYDROGRAPH AT | SUBED2 | 158. | 12.25 | 17. | 5. | 2. | .11 |
| + | DIVERSION TO | RETED2 | 158. | 12.25 | 15. | 4. | 1. | .11 |
| + | HYDROGRAPH AT | RETED2 | 34. | 12.58 | 3. | 1. | 0. | .11 |
| | 2 COMBINED AT | | | | | | | |

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|---|---|---|---|---|---|---|---|---|
| + | | CPED1 | 358. | 12.67 | 38. | 11. | 4. | .50 |
| + | 2 COMBINED AT | ~CPED1 | 358. | 12.67 | 188. | 60. | 20. | .50 |
| + | 2 COMBINED AT | ~CPED2 | 455. | 13.00 | 258. | 83. | 28. | .63 |
| + | ROUTED TO | RRED | 370. | 14.50 | 251. | 83. | 28. | .63 |
| + | ROUTED TO | RT95 | 353. | 14.92 | 247. | 83. | 28. | .63 |
| + | ROUTED TO | 95BASI | 218. | 17.25 | 191. | 82. | 28. | .63 |
| + | ROUTED TO | RT99 | 218. | 17.33 | 191. | 82. | 28. | .63 |
| + | HYDROGRAPH AT | SUBID1 | 273. | 12.42 | 43. | 12. | 4. | .20 |
| + | DIVERSION TO | RETID1 | 273. | 12.42 | 32. | 9. | 3. | .20 |
| + | HYDROGRAPH AT | RETID1 | 128. | 12.75 | 14. | 4. | 1. | .20 |
| + | HYDROGRAPH AT | SUBID2 | 400. | 12.42 | 60. | 18. | 6. | .36 |
| + | DIVERSION TO | RETID2 | 400. | 12.42 | 55. | 15. | 5. | .36 |
| + | HYDROGRAPH AT | RETID2 | 41. | 13.00 | 10. | 3. | 1. | .36 |
| + | HYDROGRAPH AT | SUBIE | 423. | 12.42 | 96. | 28. | 9. | .30 |
| + | DIVERSION TO | RETIE | 423. | 12.42 | 46. | 13. | 4. | .30 |
| + | HYDROGRAPH AT | RETIE | 304. | 12.67 | 57. | 16. | 5. | .30 |
| + | HYDROGRAPH AT | DRMCIE | 360. | 12.75 | 109. | 37. | 12. | 2.95 |
| + | 4 COMBINED AT | ~CPID2 | 762. | 12.75 | 193. | 60. | 20. | .87 |
| | ROUTED TO | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| + | | RRID1 | 671. | 12.92 | 192. | 60. | 20. | .87 |
| + | 2 COMBINED AT | CPID3 | 661. | 12.92 | 324. | 139. | 46. | 1.50 |
| + | ROUTED TO | RT107 | 560. | 13.17 | 317. | 138. | 46. | 1.50 |
| + | HYDROGRAPH AT | SUBIB | 603. | 12.42 | 96. | 28. | 9. | .48 |
| + | DIVERSION TO | RETIB | 150. | 11.92 | 16. | 5. | 2. | .48 |
| + | HYDROGRAPH AT | RETIB | 603. | 12.42 | 88. | 23. | 8. | .48 |
| + | HYDROGRAPH AT | SUBIC | 450. | 12.58 | 77. | 24. | 8. | .46 |
| + | DIVERSION TO | RETIC | 136. | 12.00 | 16. | 5. | 2. | .46 |
| + | HYDROGRAPH AT | RETIC | 450. | 12.58 | 69. | 19. | 6. | .46 |
| + | 2 COMBINED AT | CPIC | 1036. | 12.50 | 155. | 41. | 14. | .94 |
| + | HYDROGRAPH AT | SUBOC | 620. | 12.17 | 78. | 25. | 8. | .31 |
| + | DIVERSION TO | RETOC | 620. | 12.17 | 56. | 16. | 5. | .31 |
| + | HYDROGRAPH AT | RETOC | 323. | 12.33 | 32. | 9. | 3. | .31 |
| + | HYDROGRAPH AT | DROC | 13. | 13.42 | 6. | 2. | 1. | .51 |
| + | ROUTED TO | RTDIOC | 9. | 14.75 | 5. | 2. | 1. | .51 |
| + | 2 COMBINED AT | CPOC | 323. | 12.33 | 36. | 11. | 4. | .31 |
| + | ROUTED TO | RTOCMB | 112. | 12.83 | 35. | 11. | 4. | .31 |
| + | HYDROGRAPH AT | SUBMB | 1360. | 12.42 | 226. | 70. | 23. | 1.00 |
| | DIVERSION TO | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| + | | RETMB | 1360. | 12.42 | 163. | 45. | 15. | 1.00 |
| + | HYDROGRAPH AT | RETMB | 733. | 12.75 | 88. | 26. | 9. | 1.00 |
| + | HYDROGRAPH AT | DRMB | 356. | 12.58 | 71. | 23. | 8. | 2.95 |
| + | ROUTED TO | RTDIMB | 141. | 13.25 | 67. | 23. | 8. | 2.95 |
| + | 3 COMBINED AT | @CPMB | 798. | 12.75 | 179. | 58. | 19. | 5.24 |
| + | ROUTED TO | RTMBIB | 438. | 13.17 | 170. | 58. | 19. | 5.24 |
| + | 2 COMBINED AT | CPIB0 | 1035. | 12.50 | 327. | 102. | 34. | 6.18 |
| + | 3 COMBINED AT | @CPIB2 | 1143. | 13.08 | 562. | 224. | 75. | 10.63 |
| + | ROUTED TO | RRIB | 1120. | 13.17 | 560. | 224. | 75. | 10.63 |
| + | ROUTED TO | MCIBIA | 1078. | 13.50 | 548. | 224. | 75. | 10.63 |
| + | HYDROGRAPH AT | SUBME | 371. | 12.33 | 46. | 13. | 4. | .33 |
| + | DIVERSION TO | RETME | 371. | 12.33 | 43. | 11. | 4. | .33 |
| + | HYDROGRAPH AT | RETME | 28. | 12.92 | 5. | 2. | 1. | .33 |
| + | ROUTED TO | RTMEIA | 11. | 13.50 | 5. | 2. | 1. | .33 |
| + | HYDROGRAPH AT | SUBIA | 431. | 12.25 | 51. | 15. | 5. | .31 |
| + | DIVERSION TO | RETIA | 13. | 11.42 | 5. | 2. | 1. | .31 |
| + | HYDROGRAPH AT | RETIA | 431. | 12.25 | 50. | 13. | 4. | .31 |
| + | 3 COMBINED AT | ~CPIA | 1077. | 13.50 | 558. | 235. | 79. | 11.26 |
| | ROUTED TO | | | | | | | |

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|---|---|---|---|---|---|---|---|---|
| + | | MCIAHB | 1045. | 13.75 | 555. | 234. | 79. | 11.26 |
| + | HYDROGRAPH AT | SUBHB | 460. | 12.25 | 53. | 16. | 5. | .34 |
| + | DIVERSION TO | RETHB | 21. | 11.58 | 7. | 2. | 1. | .34 |
| + | HYDROGRAPH AT | RETHB | 460. | 12.25 | 51. | 14. | 5. | .34 |
| + | 2 COMBINED AT | CPHB1 | 1049. | 13.75 | 562. | 246. | 83. | 11.61 |
| + | HYDROGRAPH AT | SUBDA | 413. | 12.42 | 55. | 15. | 5. | .33 |
| + | DIVERSION TO | RETDA | 100. | 12.00 | 8. | 2. | 1. | .33 |
| + | HYDROGRAPH AT | RETDA | 413. | 12.42 | 50. | 13. | 4. | .33 |
| + | 2 COMBINED AT | ~CPDA | 1051. | 13.75 | 605. | 257. | 87. | 11.94 |
| + | HYDROGRAPH AT | SUBLD | 350. | 12.33 | 46. | 14. | 5. | .28 |
| + | DIVERSION TO | RETLD | 350. | 12.33 | 39. | 10. | 3. | .28 |
| + | HYDROGRAPH AT | RETLD | 85. | 12.75 | 12. | 4. | 1. | .28 |
| + | ROUTED TO | RTLDMA | 46. | 13.17 | 11. | 4. | 1. | .28 |
| + | HYDROGRAPH AT | SUBMA | 304. | 12.25 | 32. | 9. | 3. | .25 |
| + | DIVERSION TO | RETMA | 304. | 12.25 | 31. | 8. | 3. | .25 |
| + | HYDROGRAPH AT | RETMA | 15. | 12.83 | 3. | 1. | 0. | .25 |
| + | 2 COMBINED AT | CPMA | 48. | 13.08 | 13. | 4. | 1. | .52 |
| + | ROUTED TO | RTMAHB | 37. | 13.67 | 13. | 4. | 1. | .52 |
| | 2 COMBINED AT | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|
| + | | CPHB2 | 1063. | 13.75 | 609. | 259. | 87. | 12.46 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBLB | 292. | 12.33 | 33. | 9. | 3. | .25 |
| | DIVERSION TO | | | | | | | |
| + | | RETLB | 292. | 12.33 | 31. | 8. | 3. | .25 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETLB | 22. | 12.83 | 3. | 1. | 0. | .25 |
| | ROUTED TO | | | | | | | |
| + | | RTLBHA | 5. | 15.08 | 3. | 1. | 0. | .25 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBHA | 214. | 12.25 | 25. | 8. | 3. | .15 |
| | DIVERSION TO | | | | | | | |
| + | | RETHA | 43. | 11.83 | 5. | 2. | 1. | .15 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETHA | 214. | 12.25 | 22. | 6. | 2. | .15 |
| | 3 COMBINED AT | | | | | | | |
| + | | CPHA | 1060. | 13.75 | 626. | 264. | 89. | 12.86 |
| | ROUTED TO | | | | | | | |
| + | | MCHACB | 1016. | 14.42 | 599. | 262. | 89. | 12.86 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBEA | 363. | 12.58 | 62. | 19. | 6. | .36 |
| | DIVERSION TO | | | | | | | |
| + | | RETEA | 363. | 12.58 | 62. | 19. | 6. | .36 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETEA | 0. | .00 | 0. | 0. | 0. | .36 |
| | ROUTED TO | | | | | | | |
| + | | RTEADC | 0. | .00 | 0. | 0. | 0. | .36 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBDC | 846. | 12.58 | 143. | 42. | 14. | .83 |
| | DIVERSION TO | | | | | | | |
| + | | RETDC | 464. | 12.58 | 78. | 23. | 8. | .83 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETDC | 383. | 12.58 | 64. | 19. | 6. | .83 |
| | DIVERSION TO | | | | | | | |
| + | | EXRET | 372. | 12.50 | 39. | 10. | 3. | .83 |
| | HYDROGRAPH AT | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| + | | EXRET | 301. | 12.75 | 31. | 9. | 3. | .83 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBDD | 224. | 12.17 | 23. | 7. | 2. | .13 |
| | DIVERSION TO | | | | | | | |
| + | | RETDD | 224. | 12.17 | 23. | 7. | 2. | .13 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETDD | 0. | .00 | 0. | 0. | 0. | .13 |
| | ROUTED TO | | | | | | | |
| + | | RTDDDC | 0. | .00 | 0. | 0. | 0. | .13 |
| | 3 COMBINED AT | | | | | | | |
| + | | ~CPDC | 301. | 12.75 | 31. | 9. | 3. | 1.32 |
| | ROUTED TO | | | | | | | |
| + | | RTDCCC | 168. | 13.33 | 29. | 8. | 3. | 1.32 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBCC | 1087. | 12.50 | 169. | 49. | 16. | .98 |
| | DIVERSION TO | | | | | | | |
| + | | RETCC | 777. | 12.50 | 121. | 35. | 12. | .98 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETCC | 310. | 12.50 | 48. | 14. | 5. | .98 |
| | 2 COMBINED AT | | | | | | | |
| + | | ~CPCC | 307. | 12.50 | 75. | 22. | 7. | 2.30 |
| | ROUTED TO | | | | | | | |
| + | | RTCCSC | 262. | 12.83 | 74. | 22. | 7. | 2.30 |
| | ROUTED TO | | | | | | | |
| + | | RTCCSC | 219. | 13.17 | 74. | 22. | 7. | 2.30 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBCB | 942. | 12.42 | 148. | 40. | 13. | .74 |
| | DIVERSION TO | | | | | | | |
| + | | RETCB | 438. | 12.08 | 28. | 8. | 3. | .74 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETCB | 942. | 12.42 | 125. | 32. | 11. | .74 |
| | 3 COMBINED AT | | | | | | | |
| + | | ~CPCB1 | 1105. | 14.33 | 716. | 304. | 104. | 15.90 |
| | HYDROGRAPH AT | | | | | | | |
| + | | SUBGD1 | 761. | 12.33 | 107. | 32. | 11. | .63 |
| | DIVERSION TO | | | | | | | |

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|---|---|---|---|---|---|---|---|---|
| + | | RETGD1 | 204. | 11.92 | 21. | 7. | 2. | .63 |
| + | HYDROGRAPH AT | RETGD1 | 761. | 12.33 | 96. | 26. | 9. | .63 |
| + | HYDROGRAPH AT | SUBGD2 | 965. | 12.50 | 163. | 48. | 16. | .21 |
| + | DIVERSION TO | RETGD2 | 193. | 11.92 | 25. | 8. | 3. | .21 |
| + | HYDROGRAPH AT | RETGD2 | 965. | 12.50 | 150. | 40. | 13. | .21 |
| + | 2 COMBINED AT | CPGD | 1697. | 12.42 | 242. | 64. | 21. | .84 |
| + | HYDROGRAPH AT | SUBKC | 351. | 12.25 | 43. | 13. | 4. | .26 |
| + | DIVERSION TO | RETKC | 351. | 12.25 | 40. | 11. | 4. | .26 |
| + | HYDROGRAPH AT | RETKC | 18. | 12.92 | 6. | 2. | 1. | .26 |
| + | ROUTED TO | RTKCGD | 9. | 13.58 | 6. | 2. | 1. | .26 |
| + | HYDROGRAPH AT | SUBGC | 309. | 12.25 | 33. | 10. | 3. | .22 |
| + | DIVERSION TO | RETGC | 156. | 12.00 | 9. | 3. | 1. | .22 |
| + | HYDROGRAPH AT | RETGC | 309. | 12.25 | 27. | 7. | 2. | .22 |
| + | ROUTED TO | RTGCGD | 304. | 12.25 | 27. | 7. | 2. | .22 |
| + | 3 COMBINED AT | CPGD1 | 1921. | 12.42 | 270. | 73. | 24. | 1.32 |
| + | ROUTED TO | RTGDCB | 1868. | 12.50 | 266. | 73. | 24. | 1.32 |
| + | 2 COMBINED AT | ~CPCB2 | 2704. | 12.50 | 955. | 368. | 125. | 17.22 |
| + | ROUTED TO | MCCBCA | 2560. | 12.83 | 933. | 367. | 125. | 17.22 |
| | HYDROGRAPH AT | | | | | | | |

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|---|---|---|---|---|---|---|---|---|---|
| + | | SUBCA1 | 176. | 12.50 | 28. | 8. | 3. | .14 |
| + | DIVERSION TO | RETCA1 | 27. | 11.83 | 4. | 1. | 0. | .14 |
| + | HYDROGRAPH AT | RETCA1 | 176. | 12.50 | 27. | 7. | 2. | .14 |
| + | HYDROGRAPH AT | SUBCA2 | 1004. | 12.50 | 151. | 41. | 14. | .84 |
| + | DIVERSION TO | RETCA2 | 456. | 12.08 | 33. | 9. | 3. | .84 |
| + | HYDROGRAPH AT | RETCA2 | 1004. | 12.50 | 125. | 32. | 11. | .84 |
| + | 3 COMBINED AT | ~CPCA1 | 3143. | 12.83 | 1035. | 400. | 137. | 18.20 |
| + | HYDROGRAPH AT | SUBGB | 270. | 12.33 | 31. | 9. | 3. | .22 |
| + | DIVERSION TO | RETGB | 243. | 12.25 | 16. | 4. | 1. | .22 |
| + | HYDROGRAPH AT | RETGB | 237. | 12.33 | 17. | 4. | 1. | .22 |
| + | ROUTED TO | RTGBCA | 54. | 13.50 | 16. | 4. | 1. | .22 |
| + | 2 COMBINED AT | ~CPCA2 | 3144. | 12.83 | 1047. | 403. | 138. | 18.42 |
| + | DIVERSION TO | B-DRCC | 3110. | 12.83 | 1014. | 370. | 123. | 18.42 |
| + | HYDROGRAPH AT | P-DRCC | 34. | 12.83 | 33. | 33. | 14. | 18.42 |
| + | ROUTED TO | MCCABC | 34. | 13.17 | 33. | 33. | 14. | 18.42 |
| + | HYDROGRAPH AT | SUBBC1 | 358. | 12.00 | 33. | 11. | 4. | .14 |
| + | DIVERSION TO | RETBC1 | 7. | 9.58 | 4. | 1. | 0. | .14 |
| + | HYDROGRAPH AT | RETBC1 | 358. | 12.00 | 33. | 9. | 3. | .14 |
| | HYDROGRAPH AT | | | | | | | |

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|---|---|---|---|---|---|---|---|---|
| + | | SUBBC2 | 663. | 12.50 | 106. | 32. | 11. | .49 |
| | DIVERSION TO | | | | | | | |
| + | | RETBC2 | 58. | 11.75 | 16. | 5. | 2. | .49 |
| | HYDROGRAPH AT | | | | | | | |
| + | | RETBC2 | 663. | 12.50 | 100. | 27. | 9. | .49 |
| | 3 COMBINED AT | | | | | | | |
| + | | ~CPBC | 674. | 12.50 | 150. | 65. | 25. | 19.05 |
| | 2 COMBINED AT | | | | | | | |
| + | | CPAFBC | 660. | 12.50 | 147. | 64. | 25. | 28.42 |

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