Appendix C
HEC-1 Summary Printouts for

1-, 2-, 5-, 10-, 25-, 50-, 100-, and 500-year Storms for Existing, Built-out, and LLCCP Projected Land Use Conditions

Existing Conditions Input File

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HEC1 S/N: 1343001909        HMVersion: 6.33    Data File: C:\WINDOWS\TEMP\~vbh173A.TMP

**************************************
*                                    *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*               MAY   1991           *
*            VERSION 4.0.1E          *
*                                    *
*  RUN DATE  04/26/2002  TIME  14:02:31 *
*                                    *
**************************************

**************************************
*                                    *
*    U.S. ARMY CORPS OF ENGINEERS    *
*    HYDROLOGIC ENGINEERING CENTER   *
*         609 SECOND STREET          *
*       DAVIS, CALIFORNIA 95616      *
*           (916) 756-1104           *
*                                    *
**************************************

     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


     ::::::::::::::::::::::::::::::::::::::::::::
     ::::::::::::::::::::::::::::::::::::::::::::
     :::                                      :::
     :::  Full Microcomputer Implementation   :::
     :::                by                    :::
     :::        Haestad Methods, Inc.         :::
     :::                                      :::
     ::::::::::::::::::::::::::::::::::::::::::::
     ::::::::::::::::::::::::::::::::::::::::::::

          37 Brookside Road * Waterbury, Connecticut  06708 * (203) 755-1666

     THIS PROGRAM REPLACES ALL PREVIOUS VERSIONS OF HEC-1 KNOWN AS HEC1 (JAN 73), HEC1GS, HEC1DB, AND HEC1KW.

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

**********************************************************************************************************************************************************
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HEC-1 INPUT PAGE 1

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LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
    1         ID  1-year Existing Conditions Urban Planning Zones S-1, S-2, S-3, and S-5
    2         IT       6                    300
    3         IO       0       0

    4         KK  S2B3
    5         KM  S2B1
    6         KO                                    22
    7         BA    0.07
    8         PB    2.48
    9         IN       6
   10         PC  0.0000 0.00101 0.00202 0.00305 0.00408 0.00513 0.00618 0.00725 0.00832 0.00941
   11         PC  0.0105 0.01161 0.01272 0.01385 0.01498 0.01613 0.01728 0.01845 0.01962 0.02081
   12         PC  0.0220 0.02321 0.02442 0.02565 0.02688 0.02813 0.02938 0.03065 0.03192 0.03321
   13         PC  0.0345 0.03581 0.03712 0.03845 0.03978 0.04113 0.04248 0.04385 0.04522 0.04661
   14         PC  0.0480 0.04941 0.05084 0.05229 0.05376 0.05525 0.05676 0.05829 0.05984 0.06141
   15         PC  0.0630 0.06461 0.06624 0.06789 0.06956 0.07125 0.07296 0.07469 0.07644 0.07821
   16         PC  0.0800 0.08181 0.08364 0.08549 0.08736 0.08925 0.09116 0.09309 0.09504 0.09701
   17         PC  0.0990 0.10101 0.10304 0.10509 0.10716 0.10925 0.11136 0.11349 0.11564 0.11781
   18         PC  0.1200 0.12225 0.12460 0.12705 0.12960 0.13225 0.13500 0.13785 0.14080 0.14385
   19         PC  0.1470 0.15020 0.15340 0.15660 0.15980 0.16300 0.16628 0.16972 0.17332 0.17708
   20         PC  0.1810 0.18512 0.18948 0.19408 0.19892 0.20400 0.20940 0.21520 0.22140 0.22800
   21         PC  0.2350 0.24268 0.25132 0.26092 0.27148 0.28300 0.30684 0.35436 0.43079 0.56786
   22         PC  0.6630 0.68196 0.69864 0.71304 0.72516 0.73500 0.74344 0.75136 0.75876 0.76564
   23         PC  0.7720 0.77796 0.78364 0.78904 0.79416 0.79900 0.80360 0.80800 0.81220 0.81620
   24         PC  0.8200 0.82367 0.82726 0.83079 0.83424 0.83763 0.84094 0.84419 0.84736 0.85047
   25         PC  0.8535 0.85647 0.85936 0.86219 0.86494 0.86763 0.87024 0.87279 0.87526 0.87767
   26         PC  0.8800 0.88229 0.88455 0.88679 0.88900 0.89119 0.89335 0.89549 0.89760 0.89969
   27         PC  0.9018 0.90379 0.90580 0.90779 0.90975 0.91169 0.91360 0.91549 0.91735 0.91919
   28         PC  0.9210 0.92279 0.92455 0.92629 0.92800 0.92969 0.93135 0.93299 0.93460 0.93619
   29         PC  0.9377 0.93929 0.94080 0.94229 0.94375 0.94519 0.94660 0.94799 0.94935 0.95069
   30         PC  0.9520 0.95330 0.95459 0.95588 0.95716 0.95844 0.95971 0.96098 0.96224 0.96350
   31         PC  0.9647 0.96600 0.96724 0.96848 0.96971 0.97094 0.97216 0.97338 0.97459 0.97580
   32         PC  0.9770 0.97820 0.97939 0.98058 0.98176 0.98294 0.98411 0.98528 0.98644 0.98760
   33         PC  0.9887 0.98990 0.99104 0.99218 0.99331 0.99444 0.99556 0.99668 0.99779 0.99890
   34         PC  1.0000 1.00000 1.00000 1.00000 1.00000
   35         LS            79
   36         UD    0.34

   37         KK  PONDA
   38         KM  Ponda
   39         KO                                    22
   40         RS       1    ELEV     118
   41         SV    1.18    1.34    2.00
   42         SE     118     120     122
   43         SQ       0     6.9     19.5    27.8    32.1    52.8    87.3     131     181
   44         SE     118   118.5     119   119.5     120   120.5     121   121.5     122

   45         KK  R6C
   46         KM  R6C
   47         KO                                    22
   48         RS       1    STOR       0
   49         SV       0      10       20      30      40      50
   50         SQ       0      40       90     130     170     210
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LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

   51         KK  S2AD
   52         KM  S2AD
   53         KO                                    22
   54         BA    0.17
   55         LS             85
   56         UD    0.20

   57         KK  202
   58         KM  ROUTE FLOW FROM REACH R16C THROUGH STRUCTURE 202
   59         KO                                    22
   60         RS       1    ELEV 1319.30
   61         SA       0    .001    .002   .1240   .2916   .5918  1.1389
   62         SE  1319.3    1320    1322    1324    1326    1328    1330
   63         SQ       0     129     177     266     341     408     470     537     687     858
   64         SE  1319.3 1324.68 1325.46 1325.91 1326.12 1326.23 1326.36 1326.43 1326.59 1326.80

   65         KK  66TH
   66         KM  ROUTE FLOW FROM REACH R16C THROUGH STRUCTURE 66TH
   67         KO                                    22
   68         RS       1    ELEV    1308
   69         SA       0    .053   .1421   .3198   .5513   .9141  1.3959
   70         SE    1308    1310    1312    1314    1316    1318    1320
   71         SQ       0      92     128     222     279     323     376     465     605     756
   72         SE    1308 1312.17 1313.02    1315 1317.05 1318.08 1318.33 1318.56 1318.93 1319.21

   73         KK  R16C
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 74          KM  R16C
 75          KO                                      22
 76          RS       1    STOR       0
 77          RC    .035     .06    .035    1328 .010676    1346
 78          RX   325.9   368.3   377.5     384   384.1   403.4   439.4   488.1
 79          RY  1344.3  1342.5  1341.8  1341.2  1341.2  1341.6    1344    1346

 80          KK  S2AC
 81          KM  S2AC
 82          KO                                      22
 83          BA    0.15
 84          LS               77
 85          UD    0.23

 86          KK  Node84
 87          KM
 88          KO                                      22
 89          HC       2

 90          KK  R16B
 91          KM  R16B
 92          KO                                      22
 93          RS       1    STOR       0
 94          RC    .035     .06    .035     570 .006024    1292
 95          RX     347   434.8   468.1   544.9  544.91   551.6   618.7   672.2
 96          RY  1291.5    1290  1287.9  1287.8  1287.8    1288    1290    1292

                                    HEC-1 INPUT                                                    PAGE  3
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 97          KK  S2AF
 98          KM  S2AF
 99          KO                                      22
100          BA    0.22
101          LS               83
102          UD    0.39

103          KK  R26B
104          KM  R26B
105          KO                                      22
106          RS       1    STOR       0
107          RC     .04     .06    .035     906 .011906  1309.4
108          RX   221.3   243.2   276.2   293.3     301   317.8   334.6   349.1
109          RY    1308    1306  1303.9  1301.7  1301.7    1304    1308  1309.4

110          KK  S2AE
111          KM  S2AE
112          KO                                      22
113          BA    0.17
114          LS               81
115          UD    0.35

116          KK  Node19
117          KM
118          KO                                      22
119          HC       2

120          KK  R26A
121          KM  R26A
122          KO                                      22
123          RS       1    STOR       0
124          RC    .035     .06    .035     230 .008776  1303.5
125          RX     219     247   251.1   256.9   260.2   268.3   297.7   376.1
126          RY  1303.5    1300    1298  1293.8  1293.8    1298  1300.2  1301.2

127          KK  201
128          KM  ROUTE FLOW FROM R26A THROUGH STRUCUTRE 201
129          KO                                      22
130          RS       1    ELEV  1286.7
131          SA       0    .001    .009     .01    .0185   .3025  1.0626
132          SE  1286.7    1287    1288    1290    1292    1294    1296
133          SQ       0     167     241     383     504     613     716     826    1074    1342
134          SE  1286.7 1291.69 1293.42 1294.39 1294.63  1294.8 1294.93 1295.08 1295.37 1295.59

135          KK  R16A
136          KM  R16A
137          KO                                      22
138          HC       2

                                    HEC-1 INPUT                                                    PAGE  4
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

139          KK  R16A
140          KM  R16A
141          KO                                      22
142          RS       1    STOR       0
143          RC      .1     .06      .1    1055 .013944    1290
144          RX   255.8   302.4   393.4   470.5   479.6     545   597.3   685.5
145          RY    1290  1284.1    1284  1283.5  1283.5    1284  1285.6  1287.5

146          KK  S2AB
147          KM  S2AB
148          KO                                      22
149          BA    0.20
150          LS               79
151          UD    0.32

152          KK  Node75
153          KM
154          KO                                      22
155          HC       2

156          KK  R15
157          KM  R15
158          KO                                      22
159          RS       1    STOR       0
160          SV       0     4.5     6.2     9.4    12.4    15.0    17.7    25.6    31.1
161          SQ       0     354     523     840    1130    1379    1639    1924    2579

162          KK  S2AA
163          KM  S2AA
164          KO                                      22
165          BA    0.20
166          LS               75
167          UD    0.43

168          KK  56THB
169          KM  56THB
170          KO                                      22
171          HC       2

172          KK  R14C
173          KM  R14C
174          KO                                      22
175          RS       1    STOR       0
176          SV       0     2.7     3.7     6.9     9.5    11.1    12.4    13.8    18.5
177          SQ       0     356     545     893    1200    1473    1691    1876    2705

178          KK  S2Z
179          KM  S2Z
180          KO                                      22
181          BA    0.11
182          LS               82
183          UD    0.26

                                    HEC-1 INPUT                                                    PAGE  5
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

184          KK  91
185          KM  91 CBC
186          KO                                      22
187          RS       1    ELEV 1273.19
188          SA       0    0.01    .081    .169    .315   1.350
189          SE  1273.1    1274    1276    1278    1280    1282
190          SQ       0      15      30      45      50      75      90     105     120     135
191          SQ     150
192          SE  1273.1 1274.54 1274.78 1275.17 1275.32 1275.97 1276.49 1276.87 1277.23 1277.61
193          SE  1277.9

194          KK  Node64
195          KM
196          KO                                      22
197          HC       2

198          KK  R14B
199          KM  R14B
200          KO                                      22
201          RS       1    STOR       0
202          SV       0    0.69    1.00    1.52    1.95    2.30    2.56    2.83    3.57
203          SQ       0     364     562     898    1218    1525    1764    1982    2804

204          KK  S2Y
205          KM  S2Y
206          KO                                      22
207          BA    0.27
208          LS               82
209          UD    0.40

210          KK  90
211          KM  90 CBC
212          KO                                      22
213          RS       1    ELEV 1281.72
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 214          SA       0     0.1    0.11    .130    .402    .843   1.724
 215          SE  1281.7    1282    1284    1286    1288    1290    1292
 216          SQ       0     0.1      40      50     120     160     200     240     280     320
 217          SQ     360     400
 218          SE  1281.7 1281.85 1283.81 1284.08 1285.52 1286.20 1286.82 1287.39 1287.92 1288.42
 219          SE  1289.0 1289.68

 220          KK  R25
 221          KM  R25
 222          KO                                  22
 223          RS       1    STOR       0
 224          RC     .04     .06     .04    1313 .010428      20
 225          RX       0     150     160     200     211     291     541     676
 226          RY      20       5       4       0       0       4     6.5      20

                                      HEC-1 INPUT                                        PAGE  6

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

 227          KK  CLV310
 228          KM  ROUTE FLOW FROM R25 THROUGH STRUCTURE CULV31
 229          KO                                  22
 230          RS       1    ELEV 1259.33
 231          SA       0    0.05   0.321   1.007   2.226
 232          SE  1259.3    1260    1262    1264    1266
 233          SQ       0     115     164     255     328     391     439     488     609     761
 234          SE  1259.3 1262.82 1263.61 1264.93 1265.96 1266.14 1266.21 1266.34 1266.47 1266.62

 235          KK  S2X
 236          KM  S2X
 237          KO                                  22
 238          BA    0.09
 239          LS              81
 240          UD    0.38

 241          KK  Node62
 242          KM
 243          KO                                  22
 244          HC       3

 245          KK  R14A
 246          KM  R14A
 247          KO                                  22
 248          RS       1    STOR       0
 249          SV       0     4.4     5.9     7.9     9.6    10.9    11.9    12.9    14.7    16.3
 250          SQ       0     484     735    1164    1559    1927    2277    2668    3545    4431

 251          KK  S2W
 252          KM  S2W
 253          KO                                  22
 254          BA    0.16
 255          LS              80
 256          UD    0.40

 257          KK  Node57
 258          KM
 259          KO                                  22
 260          HC       2

 261          KK  R13
 262          KM  R13
 263          KO                                  22
 264          RS       1    STOR       0
 265          SV       0     6.4     8.9    12.2    15.1    17.6    19.9    22.1    27.2    32.0
 266          SQ       0     498     778    1249    1664    2072    2475    2881    3840    4752

 267          KK  S2V
 268          KM  S2V
 269          KO                                  22
 270          BA    0.21
 271          LS              77
 272          UD    0.26

                                      HEC-1 INPUT                                        PAGE  7

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

 273          KK  Node54
 274          KM
 275          KO                                  22
 276          HC       2

 277          KK  R12
 278          KM  R12
 279          KO                                  22
 280          RS       1    STOR       0
 281          SV       0     9.1    13.0    20.1    26.3    33.1    38.2    43.1    53.8    68.1
 282          SQ       0     488     773    1275    1719    2141    2561    2986    3968    5547

 283          KK  S2S
 284          KM  S2S
 285          KO                                  22
 286          BA    0.22
 287          LS              76
 288          UD    0.20

 289          KK  R24B
 290          KM
 291          KO                                  22
 292          RS       1    STOR       0
 293          RC      .1     .035      .1     750 .014494    1282
 294          RX   420.1    449.7   490.2   495.6   495.7   501.6   526.7   565.3
 295          RY    1282   1280.4  1277.1  1276.6  1276.6  1277.1  1278.8    1282

 296          KK  S2R
 297          KM  S2R
 298          KO                                  22
 299          BA    0.21
 300          LS              77
 301          UD    0.23

 302          KK  REBEL
 303          KM  REBEL
 304          KO                                  22
 305          HC       2

 306          KK  56THA
 307          KM  ROUTE COMBINED FLOW 56THA THROUGH STRUCUTRE REBEL DRIVE
 308          KO                                  22
 309          RS       1    ELEV  1285.5
 310          SA       0   0.041   0.411   0.918   1.662   2.594
 311          SE  1285.5    1286    1288    1290    1292    1294
 312          SQ       0      75     122     218     304     383     459     543     733     916
 313          SQ     994    1346    1682
 314          SE  1285.5 1288.51 1289.51 1292.03 1292.35 1292.54 1292.68 1292.82 1293.14 1293.36
 315          SE  1293.4 1293.85 1294.20

                                      HEC-1 INPUT                                        PAGE  8

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

 316          KK  93
 317          KM  ROUTE COMBINED FLOW FROM R24A THROUGH STRUCTURE 93
 318          KO                                  22
 319          RS       1    ELEV  1269.8
 320          SA       0    .007    .065    .160   .3134    .700   1.709   3.034   4.516  6.0979
 321          SE  1269.8    1270    1272    1274    1276    1278    1280    1282    1284    1286
 322          SQ       0     138     219     382     526     663     796     944    1282    1602
 323          SE  1269.8 1273.14 1274.37 1276.45 1278.04 1279.42 1280.67 1282.56 1284.78 1285.11

 324          KK  S53RD
 325          KM  ROUTE FLOW FROM R23B THROUGH STRUCTURE S53RD
 326          KO                                  22
 327          RS       1    ELEV    1262
 328          SA       0   0.033   0.354   1.415   2.476  4.3196  6.3545
 329          SE    1262    1264    1266    1268    1270    1272    1274
 330          SQ       0     138     219     382     526     663     796     944    1282    1602
 331          SE    1262 1265.33 1266.59 1268.67 1270.27 1271.65 1272.38 1272.74 1273.36 1273.76

 332          KK  R23A
 333          KM  ROUTE FLOW FROM S53RD THROUGH R23A
 334          KO                                  22
 335          RS       1    STOR       0
 336          RC      .1     .06      .1 250.326 .010531    1273
 337          RX     460   543.2   566.2   571.8   582.8   593.3   638.4     964
 338          RY    1273    1270    1270  1265.2  1265.2    1270    1272  1272.4

 339          KK  S2Q
 340          KM  S2Q
 341          KO                                  22
 342          BA    0.14
 343          LS              79
 344          UD    0.26

 345          KK  Node95
 346          KM
 347          KO                                  22
 348          HC       2

 349          KK  R22
 350          KM  R22
 351          KO                                  22
 352          RS       1    STOR       0
 353          SV       0     4.1     4.5     5.2     5.8     6.3     6.7     7.1     7.8
 354          SQ       0     166     235     374     518     630     721     805     971
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355          KK  S2P
356          KM  S2P
357          KO                                      22
358          BA    0.19
359          LS              74
360          UD    0.36

                                        HEC-1 INPUT                                                 PAGE  9

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


361          KK  Node92
362          KM
363          KO                                      22
364          HC       2

365          KK  R21
366          KM  R21
367          KO                                      22
368          RS       1    STOR       0
369          SV       0    13.2    17.4    23.7    29.2    36.6    40.5    44.8    52.6    61.0
370          SQ       0     165     266     486     685     858     996    1136    1430    1786

371          KK  S2U
372          KM  S2U
373          KO                                      22
374          BA    0.12
375          LS              78
376          UD    0.29

377          KK  S2O
378          KM  S2O
379          KO                                      22
380          BA    0.27
381          LS              79
382          UD    0.38

383          KK  40THB
384          KM  40THB
385          KO                                      22
386          HC       4

387          KK  R11
388          KM  R11
389          KO                                      22
390          RS       1    STOR       0
391          SV       0     3.6     6.0    11.3    14.8    19.2    22.2    25.3    30.9    36.8
392          SQ       0     585     921    1607    2230    2782    3338    3929    5260    6791

393          KK  S2T
394          KM  S2T
395          KO                                      22
396          BA    0.36
397          LS              83
398          UD    0.40

399          KK  R20
400          KM  R20
401          KO                                      22
402          RS       1    STOR       0
403          SV       0     1.7     2.8     4.3     5.1     6.3     7.0     7.7     9.1    10.4
404          SQ       0     222     296     431     543     570     662     762     986    1232

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


405          KK  Node44
406          KM
407          KO                                      22
408          HC       2

409          KK  R10
410          KM  R10
411          KO                                      22
412          RS       1    STOR       0
413          SV       0    12.6    17.8    28.4    37.3    42.5    48.5    54.4    65.1    76.4
414          SQ       0     653    1027    1794    2512    3035    3694    4418    5841    7603

415          KK  S2M2
416          KM  S2M2
417          KO                                      22
418          BA    0.23
419          LS              75
420          UD    0.39

421          KK  S2MDAM
422          KM  48THST
423          KO                                                  22
424          RS       1    ELEV      -1
425          SA     5.9     7.4     8.8    10.3
426          SE       0       2       4       6
427          SQ      20      40      80     500
428          SE       0       2       4       6

429          KK  R19B
430          KM  R19B
431          KO                                                  22
432          RS       1    STOR       0
433          RC    .025     .06    .025    1227  .01334    1260
434          RX     458     500   576.9   587.8     603   623.3   663.5   731.7
435          RY    1260    1258  1254.5    1254    1254  1255.5    1258    1260

436          KK  S2M1
437          KM  S2M1
438          KO                                                  22
439          BA    0.16
440          LS              76
441          UD    0.25

442          KK  S2N
443          KM  S2N
444          KO                                                  22
445          BA    0.16
446          LS              76
447          UD    0.42

                                        HEC-1 INPUT                                                 PAGE 11

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


448          KK  YANKB
449          KM  YANKB
450          KO                                                  22
451          HC       3

452          KK  191
453          KM  ROUTE COMBINED FLOW FROM YANKB THROUGH STRUCUTRE 191
454          KO                                                  22
455          RS       1    ELEV  1247.1
456          SA       0   0.001    .201    .590   1.192   2.561   4.451   7.822  11.721
457          SE  1247.1    1248    1250    1252    1254    1256    1258    1260    1262
458          SQ       0     113     167     275     371     460     545     638     850    1062
459          SE  1247.1 1249.87 1250.71 1252.16 1253.28 1254.23 1255.08 1256.23 1259.28 1260.19

460          KK  R19A
461          KM  R19A
462          KO                                                  22
463          RS       1    STOR       0
464          RC     .04     .06     .04    1425 .007411    1248
465          RX     873   924.8  1064.6 1072.73  1081.9  1100.4    1138    1148
466          RY    1246  1245.2    1244 1241.31  1241.3    1246    1248    1249

467          KK  S2L
468          KM  S2L
469          KO                                                  22
470          BA    0.17
471          LS              81
472          UD    0.22

473          KK  40THA
474          KM  40THA
475          KO                                                  22
476          HC       2

477          KK  83
478          KM  ROUTE COMBINED FLOW FROM 40THA THROUGH STRUCTURE 83
479          KO                                                  22
480          RS       1    ELEV  1234.2
481          SA       0   .0084    .147    .603   2.475   5.394
482          SE  1234.2    1236    1238    1240    1242    1244
483          SQ       0     200     286     442     574     696     818     950    1272    1590
484          SE  1234.2 1237.82 1238.78 1240.31 1241.72 1242.22 1242.33 1242.50 1242.71 1242.96

485          KK  R18B
486          KM  R18B
487          KO                                                  22
488          RS       1    STOR       0
489          RC     .04     .06     .04    1413 .007960    1242
490          RX   355.2   479.7   507.9   521.4   541.6   564.7   588.1   663.2
491          RY    1242  1239.5  1237.9  1233.9  1233.9    1238    1238    1240
```

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                                        HEC-1 INPUT                                                 PAGE 12

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

 492          KK  S2K
 493          KM  S2K
 494          KO                                      22
 495          BA    0.31
 496          LS              83
 497          UD    0.37

 498          KK  Node31
 499          KM
 500          KO                                      22
 501          HC       2

 502          KK  R18A
 503          KM  R18A
 504          KO                                      22
 505          RS       1    STOR       0
 506          RC     .04     .06      .04    1312 .006748    1230
 507          RX   496.4   587.6   607.55   621.69  627.64  660.75   806.4  1094.6
 508          RY    1230    1228    1226     1222    1222    1226    1227    1228

 509          KK  S2J
 510          KM  S2J
 511          KO                                      22
 512          BA    0.23
 513          LS              88
 514          UD    0.51

 515          KK  Node28
 516          KM
 517          KO                                      22
 518          HC       2

 519          KK  R17
 520          KM  R17
 521          KO                                      22
 522          RS       1    STOR       0
 523          SV       0     2.9      4.2      7.6    10.1    11.9    14.0    16.1    20.5    25.0
 524          SQ       0     487      666      982    1222    1345    1549    1794    2337    2921

 525          KK  Node25
 526          KM
 527          KO                                      22
 528          HC       2

 529          KK  R9
 530          KM  R9
 531          KO                                      22
 532          RS       1    STOR       0
 533          SV       0     7.3      9.5     16.4    22.7    26.9    31.3    35.7    45.0    54.2
 534          SQ       0     969     1412     2375    3318    4018    4860    5726    7689    9865

                                        HEC-1 INPUT                                                 PAGE 13

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


 535          KK  S2H
 536          KM  S2H
 537          KO                                      22
 538          BA    0.20
 539          LS              82
 540          UD    0.27

 541          KK  S2I1
 542          KM  S2I1
 543          KO                                      22
 544          BA    0.11
 545          LS              83
 546          UD    0.28

 547          KK  S2I2
 548          KM  S2I2
 549          KO                                      22
 550          BA    0.22
 551          LS              78
 552          UD    0.50

 553          KK  Node21
 554          KM
 555          KO                                      22
 556          HC       4

 557          KK  R8
 558          KM  R8
 559          KO                                      22
 560          RS       1    STOR       0
 561          SV       0    11.3     13.7     16.1    18.6    20.0    22.0    24.4    28.9    33.7
 562          SQ       0    1100     1581     2573    3544    4277    5146    6071    8239   10565

 563          KK  S2G
 564          KM  S2G
 565          KO                                      22
 566          BA    0.09
 567          LS              83
 568          UD    0.33

 569          KK  ROKEBY
 570          KM  ROKEBY
 571          KO                                      22
 572          HC       2

 573          KK  R7C
 574          KM  R7C
 575          KO                                      22
 576          RS       1    STOR       0
 577          SV       0    11.5     15.1     21.1    26.8    33.1    38.6    44.1    55.0    65.9
 578          SQ       0    1117     1658     2657    3644    4279    5182    6139    8323   10667

                                        HEC-1 INPUT                                                 PAGE 14

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


 579          KK  S2F2
 580          KM  S2F2
 581          KO                                      22
 582          BA    0.18
 583          LS              82
 584          UD    0.34

 585          KK  Node15
 586          KM
 587          KO                                      22
 588          HC       2

 589          KK  R7B
 590          KM  R7B
 591          KO                                      22
 592          RS       1    STOR       0
 593          SV       0     7.7     11.9     18.1    23.5    23.8    26.3    29.2    35.7    42.2
 594          SQ       0    1126     1673     2706    3685    4263    5214    6194    8408   10715

 595          KK  S2E
 596          KM  S2E
 597          KO                                      22
 598          BA    0.25
 599          LS              83
 600          UD    0.43

 601          KK  S2EDAM
 602          KM
 603          KO                                      22
 604          RS             ELEV    1218
 605          SA     2.5    3.031   4.628    6.964   9.303  11.733
 606          SE    1218     1220    1222     1224    1226    1228
 607          SQ       0      6.6    18.6     22.8    23.3    23.8    24.3    24.7    25.2      44
 608          SQ      78      174    1078     2650    7000
 609          SE    1218   1218.5    1219   1219.5    1220  1220.5    1221  1221.5    1222  1222.5
 610          SE    1223     1224    1225     1226    1228

 611          KK  S2F1
 612          KM
 613          KO                                      22
 614          BA    .146
 615          LS              79
 616          UD    0.31

 617          KK  Node11
 618          KM
 619          KO                                      22
 620          HC       3

                                        HEC-1 INPUT                                                 PAGE 15

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


 621          KK  R7A
 622          KM  R7A
 623          KO                                      22
 624          RS       1    STOR       0
 625          SV       0     9.0     13.1     25.4    33.2    39.3    46.2    51.8    62.2    76.4
 626          SQ       0    1169     1760     2904    3976    4430    5396    6478    8869   11313
```

```
627          KK  27THB
628          KM  27THB
629          KO                                22
630          HC       2

631          KK  R6B
632          KM  R6B
633          KO                                22
634          RS       1    STOR       0
635          SV       0    14.0    31.1    65.8   129.9   219.3   271.0   291.6   321.7   342.2
636          SQ       0    1166    1746    2864    3960    4356    5363    6452    8849   11187

637          KK  S5A
638          KM  S5A
639          KO                                22
640          BA    0.22
641          LS              81
642          UD     .35

643          KK  PondS5
644          KM  PondS5A
645          KO                                22
646          RS       1    ELEV    1263
647          SV       0     1.1     4.4     9.4    16.1
648          SE    1263    1264    1266    1268    1270
649          SQ       0     6.6    18.6    22.8    23.3    23.8    24.3    24.7    25.2      44
650          SQ      78     174    1078
651          SE    1263  1263.5    1264  1264.5    1265  1265.5    1266  1266.5    1267  1267.5
652          SE    1268    1269    1270

653          KK  R33
654          KM  R33
655          KO                                22
656          RS       1    STOR       0
657          SV       0     2.4     3.1     4.6     5.7     6.9     7.7     8.4    10.1    11.9
658          SV    13.7
659          SQ       0      94     137     220     291     356     417     483     633     800
660          SQ    1000

661          KK  S5B
662          KM  S5B
663          KO                                22
664          BA    0.37
665          LS              81
666          UD     .33
```

HEC-1 INPUT PAGE 16

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

667          KK  S5up
668          KM
669          KO                                22
670          HC       2

671          KK  R32
672          KM  R32
673          KO                                22
674          RS       1    STOR       0
675          SV       0     4.0     6.2    11.6    14.3    16.5    18.5    20.6    24.9    29.3
676          SV    32.9
677          SQ       0     217     315     522     689     846     995    1161    1537    2000
678          SQ    2400

679          KK  S5C
680          KM  S5C
681          KO                                22
682          BA    0.23
683          LS              80
684          UD    0.35

685          KK  S38th
686          KM
687          KO                                22
688          HC       2

689          KK  R31
690          KM  R31
691          KO                                22
692          RS       1    STOR       0
693          SV       0    11.2    15.1    24.4    29.1    34.9    39.7    50.9    74.6    94.1
694          SV   115.7
695          SQ       0     253     366     580     760     974    1174    1389    1905    2400
696          SQ    2900

697          KK  S5E
698          KM  S5E
699          KO                                22
700          BA    0.18
701          LS              80
702          UD    0.28

703          KK  R34
704          KM  R34
705          KO                                22
706          RS       1    STOR       0
707          SV       0     4.4    12.3    27.0    55.3    84.4   127.7   146.6   151.5   157.3
708          SV   162.3
709          SQ       0      82     120     194     257     315     369     428     560     700
710          SQ     860
```

HEC-1 INPUT PAGE 17

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

711          KK  S5F
712          KM  S5F
713          KO                                22
714          BA    0.28
715          LS              76
716          UD     .21
717          KK  S5G
718          KM  S5G
719          KO                                22
720          BA    0.15
721          LS              77
722          UD    0.14

723          KK  RRjctn
724          KM
725          KO                                22
726          HC       4

727          KK  S5D
728          KM  S5D
729          KO                                22
730          BA    0.34
731          LS              80
732          UD    0.21

733          KK  Saltil
734          KM
735          KO                                22
736          HC       2

737          KK  S2B1
738          KM  S2B1
739          KO                                22
740          BA     .14
741          LS              74
742          UD     .38

743          KK  BNSFB
744          KM
745          KO                                22
746          HC       3

747          KK  R6A
748          KM  R6A
749          KO                                22
750          RS       1    STOR       0
751          SV       0     1.4     3.6     9.5    16.8    27.8    34.2    42.8    53.6    59.2
752          SQ       0    1166    1746    2864    3960    4356    5363    6452    8849   11187
```

HEC-1 INPUT PAGE 18

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

753          KK  S1G
754          KM  S1G
755          KO                                22
756          BA    0.19
757          LS              87
758          UD    0.37

759          KK  S1F
760          KM  S1F
761          KO                                22
762          BA    0.14
763          LS              94
764          UD    0.47

765          KK  Node12
766          KM
767          KO                                22
```

```
 768          HC       2
 769          KK  R5
 770          KM  R5
 771          KO                              22
 772          RS       1    STOR       0
 773          SV       0     2.0     2.6     3.6     4.3     5.0     5.6     6.1     7.3     8.7
 774          SQ       0     132     190     302     398     486     567     656     856    1070

 775          KK  S1E
 776          KM  S1E
 777          KO                              22
 778          BA    0.17
 779          LS              89
 780          UD    0.27

 781          KK  27THA
 782          KM  27THA
 783          KO                              22
 784          RS       1    STOR      -1
 785          SV       0    .214   1.485   4.275   8.336  14.029   17.66
 786          SQ       0   0.001   0.002    24.2    73.7   138.6   147.0

 787          KK  R3
 788          KM  R3
 789          KO                              22
 790          RS       1    STOR       0
 791          SV       0     1.4     2.1     3.2     4.1     4.7     5.4     5.7     6.4     7.6
 792          SQ       0      22      39      72      99     122     140     145     159     198

 793          KK  S1D
 794          KM  S1D
 795          KO                              22
 796          BA    0.20
 797          LS              93
 798          UD    0.23
```

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                                    HEC-1 INPUT                                    PAGE 19

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

```
 799          KK  Node11
 800          KM
 801          KO                              22
 802          HC       3

 803          KK  D37
 804          KM
 805          KO                              22
 806          RS       1    ELEV    1202
 807          SA     0.0     1.3     1.7     2.2     3.6     4.8
 808          SE    1202    1204    1206    1208    1210    1212
 809          SQ       0     175     480     850    1030    1500
 810          SE    1202    1204    1206    1208    1210    1212

 811          KK  R2
 812          KM  R2
 813          KO                              22
 814          RS       1    STOR       0
 815          SV       0     1.9     2.5     3.6     4.5     5.3     6.0     6.8     9.2    11.6
 816          SQ       0     154     230     385     528     661     788     886    1116    1395

 817          KK  S1C
 818          KM  S1C
 819          KO                              22
 820          BA    0.19
 821          LS              85
 822          UD    0.38

 823          KK  PONDN
 824          KM  PONDN
 825          KO                              22
 826          RS       1    ELEV      -1
 827          SV       0     2.2     3.5     4.8
 828          SQ       0      16     135     350
 829          SE     110     111   111.5     112

 830          KK  S1B
 831          KM  S1B
 832          KO                              22
 833          BA    0.11
 834          LS              73
 835          UD    0.21

 836          KK  Node14
 837          KM
 838          KO                              22
 839          HC       2

 840          KK  R4
 841          KM
 842          KO                                      22
 843          RS       1    STOR       0
 844          SV       0     1.1     1.4     1.7     1.9     2.3     2.5     2.9     4.3     6.0
 845          SQ       0      62     114     217     315     402     479     563     747     933
```

```
                                    HEC-1 INPUT                                    PAGE 20

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

```
 846          KK  PONDK
 847          KM  PONDK
 848          KO                                      22
 849          RS       1    ELEV      92
 850          SV       0     4.2     8.9    11.4    13.7
 851          SQ       0      70     370     570     800
 852          SE      92      93      94    94.5      95

 853          KK  Node10
 854          KM
 855          KO                                      22
 856          HC       2

 857          KK  R1B
 858          KM  R1B
 859          KO                                      22
 860          RS       1    STOR       0
 861          SV       0     1.2     1.8     3.1     4.4     5.5     6.4     7.4    10.5    14.6
 862          SQ       0     169     271     530     757     971    1166    1350    1724    2155

 863          KK  S1A3
 864          KM  S1A3
 865          KO                                      22
 866          BA    0.17
 867          LS              77
 868          UD    0.35

 869          KK  Node9
 870          KM
 871          KO                                      22
 872          HC       2

 873          KK  Node9A
 874          KM
 875          KO                                      22
 876          DT  BNDitc
 877          DI       0     358     501     828    1130    1355    1524    1689    2145    2681
 878          DQ       0     126     199     379     554     690     794     897    1201    1487

 879          KK  R1A
 880          KM  R1A
 881          KO                                      22
 882          RS       1    STOR       0
 883          RC     .04     .06    .035     794  .00894  1184.2
 884          RX       0   879.6    1515  1521.7  1528.1  1555.9  1650.3  1789.4
 885          RY  1183.4    1182    1180  1173.4  1173.4    1180    1182  1184.2

 886          KK  S1A1
 887          KM  S1A1
 888          KO                                      22
 889          BA    0.29
 890          LS              68
 891          UD    0.15
```

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                                    HEC-1 INPUT                                    PAGE 21

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

```
 892          KK  14TH
 893          KM
 894          KO                                      22
 895          HC       2

 896          KK  S1A4
 897          KM  S1A4
 898          KO                                      22
 899          BA    0.06
 900          LS              80
 901          UD    0.22

 902          KK  BNDitc
 903          KM
 904          KO                                      22
 905          DR  BNDitc

 906          KK  Yankee
```

```
 907          KM
 908          KO                                      22
 909          HC       2

 910          KK  S2B2
 911          KM  S2B2
 912          KO                                      22
 913          BA    0.07
 914          LS              75
 915          UD    0.31

 916          KK  det-u
 917          KM
 918          KO                                      22
 919          RS       1    ELEV   102.4
 920          SV       0     0.6     1.8     3.0
 921          SQ       0       2      38     180
 922          SE   102.4   102.9   103.4   104.4

 923          KK  S2A
 924          KM  S2A
 925          KO                                      22
 926          BA    0.24
 927          LS              67
 928          UD    0.15

 929          KK  S2C
 930          KM  S2C
 931          KO                                      22
 932          BA    0.35
 933          LS              81
 934          UD    0.28
```

HEC-1 INPUT PAGE 22

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

 935          KK  NULLB
 936          KM  NULLB
 937          KO                                      22
 938          HC       6
 939          ZZ
```

1-year Storm
for
Existing Land Use Conditions

1 YEAR

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	S2B3	26.	12.20	5.	2.	1.	0.07		
ROUTED TO	PONDA	26.	12.30	5.	2.	1.	0.07	119.39	12.30
ROUTED TO	R6C	5.	13.30	4.	2.	1.	0.07		
HYDROGRAPH AT	S2AD	129.	12.10	17.	5.	4.	0.17		
ROUTED TO	202	122.	12.10	17.	5.	4.	0.17	1324.38	12.10
ROUTED TO	66TH	119.	12.20	17.	5.	4.	0.17	1312.82	12.20
ROUTED TO	R16C	107.	12.30	17.	5.	4.	0.17	1342.54	12.30
HYDROGRAPH AT	S2AC	60.	12.10	9.	3.	2.	0.15		
2 COMBINED AT	Node84	159.	12.20	27.	8.	7.	0.32		
ROUTED TO	R16B	155.	12.30	27.	8.	7.	0.32	1288.73	12.30
HYDROGRAPH AT	S2AF	102.	12.30	20.	6.	5.	0.22		
ROUTED TO	R26B	98.	12.40	20.	6.	5.	0.22	1303.40	12.40
HYDROGRAPH AT	S2AE	72.	12.20	14.	4.	3.	0.17		
2 COMBINED AT	Node19	169.	12.30	34.	10.	8.	0.39		
ROUTED TO	R26A	168.	12.30	34.	10.	8.	0.39	1297.97	12.30
ROUTED TO	201	168.	12.30	34.	10.	8.	0.39	1291.72	12.30
2 COMBINED AT	R16A	323.	12.30	60.	19.	15.	0.71		
ROUTED TO	R16A	292.	12.40	60.	19.	15.	0.71	1284.44	12.40
HYDROGRAPH AT	S2AB	79.	12.20	14.	4.	4.	0.20		
2 COMBINED AT	Node75	354.	12.40	74.	23.	19.	0.91		
ROUTED TO	R15	312.	12.50	74.	23.	19.	0.91		
HYDROGRAPH AT	S2AA	47.	12.40	11.	3.	3.	0.20		
2 COMBINED AT	56THB	356.	12.50	85.	27.	21.	1.11		
ROUTED TO	R14C	343.	12.60	85.	27.	21.	1.11		
HYDROGRAPH AT	S2Z	59.	12.20	9.	3.	2.	0.11		
ROUTED TO	91	60.	12.20	9.	3.	2.	0.11	1275.58	12.20
2 COMBINED AT	Node64	364.	12.60	94.	29.	24.	1.22		
ROUTED TO	R14B	362.	12.60	94.	29.	24.	1.22		
HYDROGRAPH AT	S2Y	116.	12.30	23.	7.	6.	0.27		
ROUTED TO	90	115.	12.30	23.	7.	6.	0.27	1285.41	12.30
ROUTED TO	R25	105.	12.50	23.	7.	6.	0.27	1.31	12.50
ROUTED TO	CLV310	99.	12.60	23.	7.	6.	0.27	1262.32	12.60
HYDROGRAPH AT	S2X	37.	12.30	7.	2.	2.	0.09		
3 COMBINED AT	Node62	484.	12.60	125.	39.	31.	1.58		
ROUTED TO	R14A	466.	12.70	124.	39.	31.	1.58		
HYDROGRAPH AT	S2W	60.	12.30	12.	4.	3.	0.16		
2 COMBINED AT	Node57	498.	12.70	137.	43.	34.	1.74		
ROUTED TO	R13	468.	12.80	136.	43.	34.	1.74		
HYDROGRAPH AT	S2V	79.	12.20	13.	4.	3.	0.21		
2 COMBINED AT	Node54	488.	12.80	149.	47.	37.	1.95		
ROUTED TO	R12	448.	13.00	149.	47.	37.	1.95		
HYDROGRAPH AT	S2S	90.	12.10	13.	4.	3.	0.22		
ROUTED TO	R24B	83.	12.20	13.	4.	3.	0.22	1277.98	12.20
HYDROGRAPH AT	S2R	85.	12.10	13.	4.	3.	0.21		
2 COMBINED AT	REBEL	164.	12.20	26.	8.	7.	0.43		
ROUTED TO	56THA	132.	12.30	26.	8.	7.	0.43	1289.76	12.30
ROUTED TO	93	132.	12.30	26.	8.	7.	0.43	1273.01	12.30
ROUTED TO	S53RD	130.	12.40	26.	8.	7.	0.43	1265.14	12.40
ROUTED TO	R23A	131.	12.40	26.	8.	7.	0.43	1267.57	12.40
HYDROGRAPH AT	S2Q	61.	12.20	10.	3.	2.	0.14		

2 COMBINED AT	Node95	175.	12.30	36.	11.	9.	0.57	
ROUTED TO	R22	136.	12.50	36.	11.	9.	0.57	
HYDROGRAPH AT	S2P	46.	12.30	10.	3.	2.	0.19	
2 COMBINED AT	Node92	171.	12.50	46.	14.	11.	0.76	
ROUTED TO	R21	91.	13.10	44.	14.	11.	0.76	
HYDROGRAPH AT	S2U	47.	12.20	8.	3.	2.	0.12	
HYDROGRAPH AT	S2O	96.	12.30	19.	6.	5.	0.27	
4 COMBINED AT	40THB	577.	13.00	219.	69.	56.	3.10	
ROUTED TO	R11	572.	13.10	219.	69.	56.	3.10	
HYDROGRAPH AT	S2T	165.	12.30	33.	10.	8.	0.36	
ROUTED TO	R20	156.	12.40	33.	10.	8.	0.36	
2 COMBINED AT	Node44	628.	13.00	251.	80.	64.	3.46	
ROUTED TO	R10	602.	13.20	250.	80.	64.	3.46	
HYDROGRAPH AT	S2M2	58.	12.30	13.	4.	3.	0.23	
ROUTED TO	S2MDAM	22.	12.90	21.	20.	20.	0.23	0.22 12.90
ROUTED TO	R19B	22.	13.10	21.	20.	20.	0.23	1254.53 13.10
HYDROGRAPH AT	S2M1	56.	12.20	9.	3.	2.	0.16	
HYDROGRAPH AT	S2N	42.	12.30	9.	3.	2.	0.16	
3 COMBINED AT	YANKB	113.	12.20	39.	26.	25.	0.55	
ROUTED TO	191	112.	12.20	39.	26.	25.	0.55	1249.84 12.20
ROUTED TO	R19A	104.	12.40	39.	26.	24.	0.55	1243.51 12.40
HYDROGRAPH AT	S2L	95.	12.10	14.	4.	3.	0.17	
2 COMBINED AT	40THA	175.	12.20	53.	30.	28.	0.72	
ROUTED TO	83	176.	12.20	53.	30.	28.	0.72	1237.38 12.20
ROUTED TO	R18B	163.	12.30	53.	30.	28.	0.72	1235.84 12.30
HYDROGRAPH AT	S2K	147.	12.30	28.	9.	7.	0.31	
2 COMBINED AT	Node31	310.	12.30	81.	39.	35.	1.03	
ROUTED TO	R18A	295.	12.40	81.	39.	35.	1.03	1225.49 12.40
HYDROGRAPH AT	S2J	122.	12.40	27.	8.	7.	0.23	
2 COMBINED AT	Node28	417.	12.40	108.	47.	41.	1.26	
ROUTED TO	R17	404.	12.50	108.	47.	41.	1.26	
2 COMBINED AT	Node25	824.	12.70	357.	127.	105.	4.72	
ROUTED TO	R9	817.	12.80	356.	127.	105.	4.72	
HYDROGRAPH AT	S2H	106.	12.20	17.	5.	4.	0.20	
HYDROGRAPH AT	S2I1	61.	12.20	10.	3.	2.	0.11	
HYDROGRAPH AT	S2I2	61.	12.40	15.	5.	4.	0.22	
4 COMBINED AT	Node21	906.	12.70	397.	140.	115.	5.25	
ROUTED TO	R8	886.	12.90	396.	140.	115.	5.25	
HYDROGRAPH AT	S2G	46.	12.20	8.	3.	2.	0.09	
2 COMBINED AT	ROKEBY	898.	12.90	404.	142.	117.	5.34	
ROUTED TO	R7C	886.	13.00	403.	142.	117.	5.34	
HYDROGRAPH AT	S2F2	84.	12.20	15.	5.	4.	0.18	
2 COMBINED AT	Node15	906.	13.00	418.	147.	121.	5.52	
ROUTED TO	R7B	901.	13.10	417.	147.	121.	5.52	
HYDROGRAPH AT	S2E	109.	12.30	23.	7.	6.	0.25	
ROUTED TO	S2EDAM	23.	13.40	20.	7.	6.	0.25	1220.06 13.40
HYDROGRAPH AT	S2F1	59.	12.20	10.	3.	3.	0.15	
3 COMBINED AT	Node11	936.	13.10	447.	157.	129.	5.92	
ROUTED TO	R7A	931.	13.20	447.	157.	129.	5.92	
2 COMBINED AT	27THB	936.	13.20	451.	159.	130.	5.99	
ROUTED TO	R6B	922.	13.40	450.	159.	130.	5.99	
HYDROGRAPH AT	S5A	94.	12.20	18.	5.	4.	0.22	
ROUTED TO	PondS5	24.	13.00	17.	5.	4.	0.22	1265.62 13.00
ROUTED TO	R33	24.	13.70	17.	5.	4.	0.22	
HYDROGRAPH AT	S5B	166.	12.20	30.	9.	7.	0.37	
2 COMBINED AT	S5up	175.	12.20	47.	15.	12.	0.59	
ROUTED TO	R32	140.	12.40	47.	15.	12.	0.59	

HYDROGRAPH AT	S5C	91.	12.30	18.	5.	4.	0.23	
2 COMBINED AT	S38th	220.	12.40	64.	20.	16.	0.82	
ROUTED TO	R31	143.	12.80	63.	20.	16.	0.82	
HYDROGRAPH AT	S5E	82.	12.20	14.	4.	3.	0.18	
ROUTED TO	R34	40.	12.50	14.	4.	3.	0.18	
HYDROGRAPH AT	S5F	110.	12.10	17.	5.	4.	0.28	
HYDROGRAPH AT	S5G	72.	12.00	10.	3.	2.	0.15	
4 COMBINED AT	RRjctn	235.	12.10	102.	32.	26.	1.43	
HYDROGRAPH AT	S5D	183.	12.10	26.	8.	6.	0.34	
2 COMBINED AT	Saltil	418.	12.10	128.	40.	32.	1.77	
HYDROGRAPH AT	S2B1	33.	12.30	7.	2.	2.	0.14	
3 COMBINED AT	BNSFB	1109.	13.30	580.	202.	165.	7.90	
ROUTED TO	R6A	1110.	13.30	580.	202.	165.	7.90	
HYDROGRAPH AT	S1G	114.	12.30	21.	7.	5.	0.19	
HYDROGRAPH AT	S1F	104.	12.30	22.	7.	6.	0.14	
2 COMBINED AT	Node12	218.	12.30	43.	14.	11.	0.33	
ROUTED TO	R5	199.	12.40	43.	14.	11.	0.33	
HYDROGRAPH AT	S1E	134.	12.10	21.	7.	5.	0.17	
ROUTED TO	27THA	42.	12.60	18.	6.	5.	0.17	
ROUTED TO	R3	31.	13.40	18.	6.	5.	0.17	
HYDROGRAPH AT	S1D	214.	12.10	30.	9.	8.	0.20	
3 COMBINED AT	Node11	328.	12.20	89.	29.	23.	0.70	
ROUTED TO	D37	312.	12.40	89.	29.	23.	0.70	1204.90 12.40
ROUTED TO	R2	305.	12.50	89.	29.	23.	0.70	
HYDROGRAPH AT	S1C	101.	12.30	19.	6.	5.	0.19	
ROUTED TO	PONDN	79.	12.50	18.	6.	5.	0.19	111.26 12.50
HYDROGRAPH AT	S1B	33.	12.10	5.	2.	1.	0.11	
2 COMBINED AT	Node14	92.	12.50	23.	8.	6.	0.30	
ROUTED TO	R4	85.	12.60	23.	8.	6.	0.30	
ROUTED TO	PONDK	46.	13.10	22.	8.	6.	0.30	92.66 13.10
2 COMBINED AT	Node10	326.	12.50	111.	36.	29.	1.00	
ROUTED TO	R1B	323.	12.60	111.	36.	29.	1.00	
HYDROGRAPH AT	S1A3	54.	12.30	11.	3.	3.	0.17	
2 COMBINED AT	Node9	358.	12.50	121.	40.	32.	1.17	
DIVERSION TO	BNDitc	126.	12.50	43.	14.	11.	1.17	
HYDROGRAPH AT	Node9A	232.	12.50	79.	26.	21.	1.17	
ROUTED TO	R1A	231.	12.60	79.	26.	21.	1.17	1177.08 12.60
HYDROGRAPH AT	S1A1	58.	12.10	9.	3.	2.	0.29	
2 COMBINED AT	14TH	248.	12.50	88.	29.	23.	1.46	
HYDROGRAPH AT	S1A4	31.	12.10	5.	1.	1.	0.06	
HYDROGRAPH AT	BNDitc	126.	12.50	43.	14.	11.	0.00	
2 COMBINED AT	Yankee	138.	12.50	47.	15.	12.	0.06	
HYDROGRAPH AT	S2B2	20.	12.20	4.	1.	1.	0.07	
ROUTED TO	det-u	7.	12.80	3.	1.	1.	0.07	102.97 12.80
HYDROGRAPH AT	S2A	42.	12.10	7.	2.	2.	0.24	
HYDROGRAPH AT	S2C	171.	12.20	28.	9.	7.	0.35	
6 COMBINED AT	NULLB	1393.	13.10	751.	258.	210.	10.08	

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

2-year Storm
for
Existing Land Use Conditions

2 YEAR

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	S2B3	40.	12.20	7.	2.	2.	0.07		
ROUTED TO	PONDA	37.	12.30	7.	2.	2.	0.07	120.12	12.30
ROUTED TO	R6C	8.	13.20	6.	2.	2.	0.07		
HYDROGRAPH AT	S2AD	177.	12.10	24.	7.	6.	0.17		
ROUTED TO	202	169.	12.10	24.	7.	6.	0.17	1325.33	12.10
ROUTED TO	66TH	161.	12.20	24.	7.	6.	0.17	1313.71	12.20
ROUTED TO	R16C	148.	12.30	23.	7.	6.	0.17	1342.73	12.30
HYDROGRAPH AT	S2AC	93.	12.10	14.	4.	3.	0.15		
2 COMBINED AT	Node84	225.	12.20	37.	12.	9.	0.32		
ROUTED TO	R16B	219.	12.30	37.	12.	9.	0.32	1288.91	12.30
HYDROGRAPH AT	S2AF	144.	12.30	28.	9.	7.	0.22		
ROUTED TO	R26B	139.	12.30	28.	9.	7.	0.22	1303.69	12.30
HYDROGRAPH AT	S2AE	106.	12.20	20.	6.	5.	0.17		
2 COMBINED AT	Node19	243.	12.30	47.	15.	12.	0.39		
ROUTED TO	R26A	242.	12.30	47.	15.	12.	0.39	1298.55	12.30
ROUTED TO	201	239.	12.30	47.	15.	12.	0.39	1293.38	12.30
2 COMBINED AT	R16A	458.	12.30	85.	26.	21.	0.71		
ROUTED TO	R16A	432.	12.40	84.	26.	21.	0.71	1284.61	12.40
HYDROGRAPH AT	S2AB	119.	12.20	21.	6.	5.	0.20		
2 COMBINED AT	Node75	523.	12.40	105.	33.	26.	0.91		
ROUTED TO	R15	477.	12.50	105.	33.	26.	0.91		
HYDROGRAPH AT	S2AA	75.	12.30	17.	5.	4.	0.20		
2 COMBINED AT	56THB	545.	12.50	122.	38.	30.	1.11		
ROUTED TO	R14C	528.	12.60	122.	38.	30.	1.11		
HYDROGRAPH AT	S2Z	84.	12.10	13.	4.	3.	0.11		
ROUTED TO	91	84.	12.20	13.	4.	3.	0.11	1276.29	12.20
2 COMBINED AT	Node64	560.	12.50	135.	42.	34.	1.22		
ROUTED TO	R14B	562.	12.60	135.	42.	34.	1.22		
HYDROGRAPH AT	S2Y	166.	12.30	33.	10.	8.	0.27		
ROUTED TO	90	164.	12.30	33.	10.	8.	0.27	1286.26	12.30
ROUTED TO	R25	152.	12.40	32.	10.	8.	0.27	1.56	12.40
ROUTED TO	CLV310	140.	12.60	32.	10.	8.	0.27	1263.23	12.60
HYDROGRAPH AT	S2X	54.	12.30	10.	3.	3.	0.09		
3 COMBINED AT	Node62	734.	12.60	177.	55.	44.	1.58		
ROUTED TO	R14A	720.	12.60	177.	55.	44.	1.58		
HYDROGRAPH AT	S2W	88.	12.30	17.	5.	4.	0.16		
2 COMBINED AT	Node57	777.	12.60	195.	60.	48.	1.74		
ROUTED TO	R13	736.	12.70	194.	60.	48.	1.74		
HYDROGRAPH AT	S2V	121.	12.20	20.	6.	5.	0.21		
2 COMBINED AT	Node54	771.	12.70	214.	66.	53.	1.95		
ROUTED TO	R12	707.	12.90	213.	66.	53.	1.95		
HYDROGRAPH AT	S2S	140.	12.10	20.	6.	5.	0.22		
ROUTED TO	R24B	129.	12.20	20.	6.	5.	0.22	1278.27	12.20
HYDROGRAPH AT	S2R	131.	12.10	20.	6.	5.	0.21		
2 COMBINED AT	REBEL	257.	12.10	39.	12.	10.	0.43		
ROUTED TO	56THA	179.	12.30	39.	12.	10.	0.43	1291.00	12.30
ROUTED TO	93	178.	12.40	39.	12.	10.	0.43	1273.74	12.40
ROUTED TO	S53RD	176.	12.40	39.	12.	10.	0.43	1265.93	12.40
ROUTED TO	R23A	175.	12.40	39.	12.	10.	0.43	1267.97	12.40
HYDROGRAPH AT	S2Q	90.	12.20	15.	4.	4.	0.14		

2 COMBINED AT	Node95	242.	12.30	54.	17.	13.	0.57	
ROUTED TO	R22	219.	12.50	53.	17.	13.	0.57	
HYDROGRAPH AT	S2P	75.	12.30	15.	5.	4.	0.19	
2 COMBINED AT	Node92	275.	12.50	68.	21.	17.	0.76	
ROUTED TO	R21	140.	13.10	66.	21.	17.	0.76	
HYDROGRAPH AT	S2U	71.	12.20	12.	4.	3.	0.12	
HYDROGRAPH AT	S2O	143.	12.30	28.	9.	7.	0.27	
4 COMBINED AT	40THB	908.	12.90	318.	100.	80.	3.10	
ROUTED TO	R11	893.	13.00	318.	100.	80.	3.10	
HYDROGRAPH AT	S2T	233.	12.30	45.	14.	11.	0.36	
ROUTED TO	R20	221.	12.40	45.	14.	11.	0.36	
2 COMBINED AT	Node44	985.	12.90	362.	114.	91.	3.46	
ROUTED TO	R10	946.	13.10	361.	114.	91.	3.46	
HYDROGRAPH AT	S2M2	93.	12.30	19.	6.	5.	0.23	
ROUTED TO	S2MDAM	25.	13.10	22.	21.	20.	0.23	
							0.50	13.10
ROUTED TO	R19B	25.	13.30	22.	21.	20.	0.23	
							1254.57	13.30
HYDROGRAPH AT	S2M1	87.	12.10	14.	4.	4.	0.16	
HYDROGRAPH AT	S2N	66.	12.30	14.	4.	4.	0.16	
3 COMBINED AT	YANKB	167.	12.20	51.	29.	27.	0.55	
ROUTED TO	191	162.	12.30	51.	29.	27.	0.55	
							1250.63	12.30
ROUTED TO	R19A	153.	12.40	50.	29.	27.	0.55	
							1243.97	12.40
HYDROGRAPH AT	S2L	138.	12.10	20.	6.	5.	0.17	
2 COMBINED AT	40THA	253.	12.20	70.	35.	32.	0.72	
ROUTED TO	83	248.	12.20	70.	35.	32.	0.72	
							1238.36	12.20
ROUTED TO	R18B	238.	12.30	70.	35.	32.	0.72	
							1236.28	12.30
HYDROGRAPH AT	S2K	207.	12.30	39.	12.	10.	0.31	
2 COMBINED AT	Node31	445.	12.30	109.	47.	41.	1.03	
ROUTED TO	R18A	428.	12.40	109.	47.	41.	1.03	
							1226.04	12.40
HYDROGRAPH AT	S2J	163.	12.40	36.	11.	9.	0.23	
2 COMBINED AT	Node28	590.	12.40	144.	59.	50.	1.26	
ROUTED TO	R17	568.	12.50	144.	59.	50.	1.26	
2 COMBINED AT	Node25	1249.	12.70	504.	172.	142.	4.72	
ROUTED TO	R9	1247.	12.80	504.	172.	142.	4.72	
HYDROGRAPH AT	S2H	150.	12.20	24.	7.	6.	0.20	
HYDROGRAPH AT	S2I1	86.	12.20	14.	4.	3.	0.11	
HYDROGRAPH AT	S2I2	93.	12.40	22.	7.	5.	0.22	
4 COMBINED AT	Node21	1368.	12.70	562.	191.	156.	5.25	
ROUTED TO	R8	1363.	12.80	561.	191.	156.	5.25	
HYDROGRAPH AT	S2G	65.	12.20	11.	4.	3.	0.09	
2 COMBINED AT	ROKEBY	1383.	12.80	572.	194.	159.	5.34	
ROUTED TO	R7C	1370.	12.90	571.	194.	159.	5.34	
HYDROGRAPH AT	S2F2	121.	12.20	22.	7.	5.	0.18	
2 COMBINED AT	Node15	1403.	12.90	592.	201.	164.	5.52	
ROUTED TO	R7B	1387.	13.00	592.	201.	164.	5.52	
HYDROGRAPH AT	S2E	154.	12.30	32.	10.	8.	0.25	
ROUTED TO	S2EDAM	24.	13.60	24.	10.	8.	0.25	
							1221.02	13.60
HYDROGRAPH AT	S2F1	88.	12.20	15.	5.	4.	0.15	
3 COMBINED AT	Node11	1430.	13.00	629.	215.	176.	5.92	
ROUTED TO	R7A	1419.	13.10	629.	215.	176.	5.92	
2 COMBINED AT	27THB	1427.	13.10	634.	218.	177.	5.99	
ROUTED TO	R6B	1341.	13.40	633.	217.	177.	5.99	
HYDROGRAPH AT	S5A	137.	12.20	25.	8.	6.	0.22	
ROUTED TO	PondS5	25.	13.20	24.	8.	6.	0.22	
							1266.76	13.20
ROUTED TO	R33	25.	13.90	23.	8.	6.	0.22	
HYDROGRAPH AT	S5B	241.	12.20	42.	13.	10.	0.37	
2 COMBINED AT	S5up	254.	12.20	64.	21.	17.	0.59	
ROUTED TO	R32	203.	12.40	64.	21.	17.	0.59	

HYDROGRAPH AT	S5C	135.	12.20	25.	8.	6.	0.23	
2 COMBINED AT	S38th	322.	12.30	89.	29.	23.	0.82	
ROUTED TO	R31	207.	12.70	87.	29.	23.	0.82	
HYDROGRAPH AT	S5E	120.	12.20	20.	6.	5.	0.18	
ROUTED TO	R34	59.	12.50	19.	6.	5.	0.18	
HYDROGRAPH AT	S5F	173.	12.10	25.	8.	6.	0.28	
HYDROGRAPH AT	S5G	112.	12.00	14.	4.	3.	0.15	
4 COMBINED AT	RRjctn	369.	12.10	144.	47.	37.	1.43	
HYDROGRAPH AT	S5D	268.	12.10	37.	11.	9.	0.34	
2 COMBINED AT	Saltil	637.	12.10	181.	58.	47.	1.77	
HYDROGRAPH AT	S2B1	54.	12.30	11.	3.	3.	0.14	
3 COMBINED AT	BNSFB	1595.	13.30	819.	279.	227.	7.90	
ROUTED TO	R6A	1593.	13.30	819.	279.	227.	7.90	
HYDROGRAPH AT	S1G	154.	12.20	29.	9.	7.	0.19	
HYDROGRAPH AT	S1F	131.	12.30	28.	9.	7.	0.14	
2 COMBINED AT	Node12	285.	12.30	56.	18.	14.	0.33	
ROUTED TO	R5	265.	12.40	56.	18.	14.	0.33	
HYDROGRAPH AT	S1E	178.	12.10	28.	9.	7.	0.17	
ROUTED TO	27THA	62.	12.60	25.	8.	6.	0.17	
ROUTED TO	R3	48.	13.20	25.	8.	6.	0.17	
HYDROGRAPH AT	S1D	272.	12.10	38.	12.	10.	0.20	
3 COMBINED AT	Node11	441.	12.20	117.	38.	30.	0.70	
ROUTED TO	D37	415.	12.40	117.	38.	30.	0.70	1205.57 12.40
ROUTED TO	R2	405.	12.50	117.	38.	30.	0.70	
HYDROGRAPH AT	S1C	139.	12.30	26.	8.	7.	0.19	
ROUTED TO	PONDN	119.	12.40	25.	8.	7.	0.19	111.43 12.40
HYDROGRAPH AT	S1B	55.	12.10	8.	3.	2.	0.11	
2 COMBINED AT	Node14	145.	12.40	33.	11.	9.	0.30	
ROUTED TO	R4	145.	12.40	33.	11.	9.	0.30	
ROUTED TO	PONDK	79.	12.90	32.	11.	9.	0.30	93.03 12.90
2 COMBINED AT	Node10	454.	12.50	148.	48.	39.	1.00	
ROUTED TO	R1B	448.	12.60	147.	48.	39.	1.00	
HYDROGRAPH AT	S1A3	83.	12.20	16.	5.	4.	0.17	
2 COMBINED AT	Node9	501.	12.50	163.	53.	43.	1.17	
DIVERSION TO	BNDitc	199.	12.50	59.	19.	15.	1.17	
HYDROGRAPH AT	Node9A	302.	12.50	104.	34.	27.	1.17	
ROUTED TO	R1A	301.	12.60	104.	34.	27.	1.17	1177.55 12.60
HYDROGRAPH AT	S1A1	110.	12.10	15.	5.	4.	0.29	
2 COMBINED AT	14TH	330.	12.50	119.	39.	31.	1.46	
HYDROGRAPH AT	S1A4	46.	12.10	7.	2.	2.	0.06	
HYDROGRAPH AT	BNDitc	199.	12.50	59.	19.	15.	0.00	
2 COMBINED AT	Yankee	215.	12.50	66.	21.	17.	0.06	
HYDROGRAPH AT	S2B2	33.	12.20	6.	2.	1.	0.07	
ROUTED TO	det-u	16.	12.60	5.	2.	1.	0.07	103.09 12.60
HYDROGRAPH AT	S2A	83.	12.10	12.	4.	3.	0.24	
HYDROGRAPH AT	S2C	247.	12.20	40.	12.	10.	0.35	
6 COMBINED AT	NULLB	2001.	13.00	1060.	357.	289.	10.08	

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

5-year Storm
for
Existing Land Use Conditions

5 YEAR

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	S2B3	66.	12.20	12.	4.	3.	0.07		
ROUTED TO	PONDA	64.	12.30	12.	4.	3.	0.07	120.66	12.30
ROUTED TO	R6C	13.	13.10	9.	4.	3.	0.07		
HYDROGRAPH AT	S2AD	266.	12.10	35.	11.	9.	0.17		
ROUTED TO	202	278.	12.10	35.	11.	9.	0.17	1325.94	12.10
ROUTED TO	66TH	231.	12.20	35.	11.	9.	0.17	1315.32	12.20
ROUTED TO	R16C	218.	12.30	35.	11.	9.	0.17	1342.98	12.30
HYDROGRAPH AT	S2AC	159.	12.10	23.	7.	6.	0.15		
2 COMBINED AT	Node84	354.	12.20	58.	18.	14.	0.32		
ROUTED TO	R16B	340.	12.30	58.	18.	14.	0.32	1289.17	12.30
HYDROGRAPH AT	S2AF	223.	12.30	42.	13.	11.	0.22		
ROUTED TO	R26B	220.	12.30	42.	13.	11.	0.22	1304.11	12.30
HYDROGRAPH AT	S2AE	170.	12.20	31.	9.	8.	0.17		
2 COMBINED AT	Node19	385.	12.30	73.	23.	18.	0.39		
ROUTED TO	R26A	386.	12.30	73.	23.	18.	0.39	1299.32	12.30
ROUTED TO	201	380.	12.30	73.	23.	18.	0.39	1294.37	12.30
2 COMBINED AT	R16A	720.	12.30	131.	41.	33.	0.71		
ROUTED TO	R16A	686.	12.40	131.	41.	33.	0.71	1284.88	12.40
HYDROGRAPH AT	S2AB	195.	12.20	33.	10.	8.	0.20		
2 COMBINED AT	Node75	840.	12.30	164.	51.	41.	0.91		
ROUTED TO	R15	775.	12.50	164.	51.	41.	0.91		
HYDROGRAPH AT	S2AA	134.	12.30	28.	9.	7.	0.20		
2 COMBINED AT	56THB	893.	12.50	192.	60.	48.	1.11		
ROUTED TO	R14C	850.	12.60	192.	60.	48.	1.11		
HYDROGRAPH AT	S2Z	133.	12.10	21.	6.	5.	0.11		
ROUTED TO	91	132.	12.20	21.	6.	5.	0.11	1277.54	12.20
2 COMBINED AT	Node64	900.	12.50	213.	66.	53.	1.22		
ROUTED TO	R14B	901.	12.60	213.	66.	53.	1.22		
HYDROGRAPH AT	S2Y	261.	12.30	50.	16.	12.	0.27		
ROUTED TO	90	255.	12.30	50.	16.	12.	0.27	1287.59	12.30
ROUTED TO	R25	239.	12.40	50.	16.	12.	0.27	2.01	12.40
ROUTED TO	CLV310	215.	12.60	50.	16.	12.	0.27	1264.35	12.60
HYDROGRAPH AT	S2X	85.	12.30	16.	5.	4.	0.09		
3 COMBINED AT	Node62	1166.	12.60	279.	86.	69.	1.58		
ROUTED TO	R14A	1161.	12.60	279.	86.	69.	1.58		
HYDROGRAPH AT	S2W	143.	12.30	28.	9.	7.	0.16		
2 COMBINED AT	Node57	1251.	12.60	306.	95.	76.	1.74		
ROUTED TO	R13	1223.	12.70	306.	95.	76.	1.74		
HYDROGRAPH AT	S2V	203.	12.10	32.	10.	8.	0.21		
2 COMBINED AT	Node54	1279.	12.60	338.	105.	84.	1.95		
ROUTED TO	R12	1192.	12.80	338.	105.	84.	1.95		
HYDROGRAPH AT	S2S	240.	12.10	32.	10.	8.	0.22		
ROUTED TO	R24B	222.	12.10	32.	10.	8.	0.22	1278.72	12.10
HYDROGRAPH AT	S2R	223.	12.10	32.	10.	8.	0.21		
2 COMBINED AT	REBEL	445.	12.10	65.	20.	16.	0.43		
ROUTED TO	56THA	369.	12.30	65.	20.	16.	0.43	1292.51	12.30
ROUTED TO	93	366.	12.30	65.	20.	16.	0.43	1276.24	12.30
ROUTED TO	S53RD	309.	12.40	65.	20.	16.	0.43	1267.74	12.40
ROUTED TO	R23A	307.	12.40	65.	20.	16.	0.43	1268.96	12.40
HYDROGRAPH AT	S2Q	149.	12.10	23.	7.	6.	0.14		

2 COMBINED AT	Node95	394.	12.40	88.	27.	22.	0.57	
ROUTED TO	R22	389.	12.40	88.	27.	22.	0.57	
HYDROGRAPH AT	S2P	134.	12.30	26.	8.	6.	0.19	
2 COMBINED AT	Node92	508.	12.40	113.	35.	28.	0.76	
ROUTED TO	R21	287.	12.80	110.	35.	28.	0.76	
HYDROGRAPH AT	S2U	117.	12.20	19.	6.	5.	0.12	
HYDROGRAPH AT	S2O	235.	12.30	45.	14.	11.	0.27	
4 COMBINED AT	40THB	1600.	12.80	511.	160.	128.	3.10	
ROUTED TO	R11	1570.	12.90	511.	160.	128.	3.10	
HYDROGRAPH AT	S2T	362.	12.30	70.	22.	17.	0.36	
ROUTED TO	R20	326.	12.40	69.	22.	17.	0.36	
2 COMBINED AT	Node44	1749.	12.80	579.	181.	145.	3.46	
ROUTED TO	R10	1672.	13.00	578.	181.	145.	3.46	
HYDROGRAPH AT	S2M2	165.	12.30	32.	10.	8.	0.23	
ROUTED TO	S2MDAM	31.	13.30	28.	22.	22.	0.23	1.13 13.40
ROUTED TO	R19B	31.	13.50	28.	22.	21.	0.23	1254.65 13.40
HYDROGRAPH AT	S2M1	153.	12.10	24.	7.	6.	0.16	
HYDROGRAPH AT	S2N	115.	12.30	24.	7.	6.	0.16	
3 COMBINED AT	YANKB	275.	12.20	74.	37.	33.	0.55	
ROUTED TO	191	263.	12.30	74.	37.	33.	0.55	1252.00 12.30
ROUTED TO	R19A	243.	12.40	74.	37.	33.	0.55	1244.49 12.40
HYDROGRAPH AT	S2L	220.	12.10	31.	9.	8.	0.17	
2 COMBINED AT	40THA	393.	12.20	105.	46.	40.	0.72	
ROUTED TO	83	384.	12.20	105.	46.	40.	0.72	1239.74 12.20
ROUTED TO	R18B	372.	12.30	104.	46.	40.	0.72	1236.91 12.30
HYDROGRAPH AT	S2K	321.	12.20	60.	19.	15.	0.31	
2 COMBINED AT	Node31	693.	12.30	164.	64.	55.	1.03	
ROUTED TO	R18A	659.	12.40	164.	64.	55.	1.03	1226.63 12.40
HYDROGRAPH AT	S2J	238.	12.40	52.	16.	13.	0.23	
2 COMBINED AT	Node28	897.	12.40	216.	81.	68.	1.26	
ROUTED TO	R17	846.	12.50	216.	81.	68.	1.26	
2 COMBINED AT	Node25	2259.	12.80	792.	262.	214.	4.72	
ROUTED TO	R9	2227.	12.90	792.	262.	214.	4.72	
HYDROGRAPH AT	S2H	235.	12.20	37.	12.	9.	0.20	
HYDROGRAPH AT	S2I1	133.	12.20	21.	7.	5.	0.11	
HYDROGRAPH AT	S2I2	156.	12.40	35.	11.	9.	0.22	
4 COMBINED AT	Node21	2385.	12.80	884.	291.	237.	5.25	
ROUTED TO	R8	2382.	12.90	883.	291.	237.	5.25	
HYDROGRAPH AT	S2G	102.	12.20	17.	5.	4.	0.09	
2 COMBINED AT	ROKEBY	2406.	12.90	900.	296.	241.	5.34	
ROUTED TO	R7C	2395.	12.90	899.	296.	241.	5.34	
HYDROGRAPH AT	S2F2	191.	12.20	34.	10.	8.	0.18	
2 COMBINED AT	Node15	2444.	12.90	931.	307.	249.	5.52	
ROUTED TO	R7B	2430.	13.00	931.	307.	249.	5.52	
HYDROGRAPH AT	S2E	240.	12.30	48.	15.	12.	0.25	
ROUTED TO	S2EDAM	39.	13.50	29.	15.	12.	0.25	1222.37 13.50
HYDROGRAPH AT	S2F1	145.	12.20	24.	7.	6.	0.15	
3 COMBINED AT	Node11	2492.	13.00	983.	329.	267.	5.92	
ROUTED TO	R7A	2448.	13.10	982.	329.	267.	5.92	
2 COMBINED AT	27THB	2461.	13.10	991.	333.	270.	5.99	
ROUTED TO	R6B	2233.	13.50	990.	333.	270.	5.99	
HYDROGRAPH AT	S5A	220.	12.20	40.	12.	10.	0.22	
ROUTED TO	PondS5	76.	12.80	33.	12.	10.	0.22	1267.97 12.80
ROUTED TO	R33	65.	13.10	33.	12.	10.	0.22	
HYDROGRAPH AT	S5B	385.	12.20	66.	21.	16.	0.37	
2 COMBINED AT	S5up	403.	12.20	98.	33.	26.	0.59	
ROUTED TO	R32	311.	12.40	98.	33.	26.	0.59	

HYDROGRAPH AT	S5C	220.	12.20	40.	12.	10.	0.23	
2 COMBINED AT	S38th	508.	12.30	137.	45.	36.	0.82	
ROUTED TO	R31	346.	12.70	135.	45.	36.	0.82	
HYDROGRAPH AT	S5E	194.	12.20	31.	10.	8.	0.18	
ROUTED TO	R34	86.	12.50	31.	10.	8.	0.18	
HYDROGRAPH AT	S5F	298.	12.10	41.	13.	10.	0.28	
HYDROGRAPH AT	S5G	190.	12.00	23.	7.	6.	0.15	
4 COMBINED AT	RRjctn	637.	12.10	229.	74.	60.	1.43	
HYDROGRAPH AT	S5D	432.	12.10	59.	18.	15.	0.34	
2 COMBINED AT	Saltil	1068.	12.10	288.	93.	74.	1.77	
HYDROGRAPH AT	S2B1	97.	12.30	19.	6.	5.	0.14	
3 COMBINED AT	BNSFB	2626.	13.40	1290.	431.	349.	7.90	
ROUTED TO	R6A	2619.	13.40	1290.	431.	349.	7.90	
HYDROGRAPH AT	S1G	229.	12.20	42.	13.	11.	0.19	
HYDROGRAPH AT	S1F	180.	12.30	38.	12.	10.	0.14	
2 COMBINED AT	Node12	406.	12.30	80.	25.	20.	0.33	
ROUTED TO	R5	385.	12.40	80.	25.	20.	0.33	
HYDROGRAPH AT	S1E	257.	12.10	40.	13.	10.	0.17	
ROUTED TO	27THA	95.	12.60	38.	12.	10.	0.17	
ROUTED TO	R3	79.	13.10	37.	12.	10.	0.17	
HYDROGRAPH AT	S1D	374.	12.10	53.	17.	14.	0.20	
3 COMBINED AT	Node11	647.	12.20	167.	54.	43.	0.70	
ROUTED TO	D37	604.	12.40	167.	54.	43.	0.70	1206.67 12.40
ROUTED TO	R2	591.	12.50	167.	54.	43.	0.70	
HYDROGRAPH AT	S1C	209.	12.30	39.	12.	10.	0.19	
ROUTED TO	PONDN	198.	12.40	38.	12.	10.	0.19	111.65 12.40
HYDROGRAPH AT	S1B	101.	12.10	14.	4.	4.	0.11	
2 COMBINED AT	Node14	260.	12.30	52.	17.	13.	0.30	
ROUTED TO	R4	254.	12.30	52.	17.	13.	0.30	
ROUTED TO	PONDK	187.	12.60	51.	17.	13.	0.30	93.39 12.60
2 COMBINED AT	Node10	767.	12.50	216.	71.	57.	1.00	
ROUTED TO	R1B	753.	12.60	216.	71.	57.	1.00	
HYDROGRAPH AT	S1A3	142.	12.20	26.	8.	6.	0.17	
2 COMBINED AT	Node9	828.	12.60	242.	79.	63.	1.17	
DIVERSION TO	BNDitc	379.	12.60	95.	30.	24.	1.17	
HYDROGRAPH AT	Node9A	449.	12.60	147.	48.	39.	1.17	
ROUTED TO	R1A	450.	12.60	147.	48.	39.	1.17	1178.39 12.60
HYDROGRAPH AT	S1A1	221.	12.10	29.	9.	7.	0.29	
2 COMBINED AT	14TH	495.	12.50	176.	58.	46.	1.46	
HYDROGRAPH AT	S1A4	75.	12.10	10.	3.	3.	0.06	
HYDROGRAPH AT	BNDitc	379.	12.60	95.	30.	24.	0.00	
2 COMBINED AT	Yankee	403.	12.50	106.	33.	27.	0.06	
HYDROGRAPH AT	S2B2	58.	12.20	10.	3.	2.	0.07	
ROUTED TO	det-u	33.	12.50	9.	3.	2.	0.07	103.33 12.50
HYDROGRAPH AT	S2A	172.	12.10	23.	7.	6.	0.24	
HYDROGRAPH AT	S2C	392.	12.20	63.	19.	16.	0.35	
6 COMBINED AT	NULLB	3106.	13.20	1664.	551.	446.	10.08	

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

10-year Storm
for
Existing Land Use Conditions

10 YEAR

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	S2B3	88.	12.20	15.	5.	4.	0.07		
ROUTED TO	PONDA	86.	12.30	15.	5.	4.	0.07	120.97	12.30
ROUTED TO	R6C	18.	13.10	12.	5.	4.	0.07		
HYDROGRAPH AT	S2AD	341.	12.10	45.	14.	11.	0.17		
ROUTED TO	202	344.	12.10	45.	14.	11.	0.17	1326.13	12.10
ROUTED TO	66TH	271.	12.20	45.	14.	11.	0.17	1316.78	12.20
ROUTED TO	R16C	263.	12.30	45.	14.	11.	0.17	1343.11	12.30
HYDROGRAPH AT	S2AC	217.	12.10	31.	10.	8.	0.15		
2 COMBINED AT	Node84	446.	12.20	76.	24.	19.	0.32		
ROUTED TO	R16B	438.	12.20	76.	24.	19.	0.32	1289.35	12.20
HYDROGRAPH AT	S2AF	291.	12.30	55.	17.	14.	0.22		
ROUTED TO	R26B	289.	12.30	55.	17.	14.	0.22	1304.36	12.30
HYDROGRAPH AT	S2AE	225.	12.20	40.	12.	10.	0.17		
2 COMBINED AT	Node19	506.	12.30	95.	30.	24.	0.39		
ROUTED TO	R26A	507.	12.30	95.	30.	24.	0.39	1299.78	12.30
ROUTED TO	201	510.	12.30	95.	30.	24.	0.39	1294.64	12.30
2 COMBINED AT	R16A	937.	12.30	171.	53.	43.	0.71		
ROUTED TO	R16A	892.	12.40	171.	53.	43.	0.71	1285.05	12.40
HYDROGRAPH AT	S2AB	262.	12.20	44.	14.	11.	0.20		
2 COMBINED AT	Node75	1130.	12.30	215.	67.	54.	0.91		
ROUTED TO	R15	1019.	12.40	215.	67.	54.	0.91		
HYDROGRAPH AT	S2AA	187.	12.30	38.	12.	9.	0.20		
2 COMBINED AT	56THB	1200.	12.40	253.	79.	63.	1.11		
ROUTED TO	R14C	1136.	12.50	253.	79.	63.	1.11		
HYDROGRAPH AT	S2Z	175.	12.10	27.	8.	7.	0.11		
ROUTED TO	91	171.	12.20	27.	8.	7.	0.11	1278.31	12.20
2 COMBINED AT	Node64	1217.	12.50	280.	87.	70.	1.22		
ROUTED TO	R14B	1212.	12.50	280.	87.	70.	1.22		
HYDROGRAPH AT	S2Y	342.	12.30	65.	20.	16.	0.27		
ROUTED TO	90	328.	12.40	65.	20.	16.	0.27	1288.54	12.40
ROUTED TO	R25	317.	12.40	65.	20.	16.	0.27	2.25	12.40
ROUTED TO	CLV310	272.	12.60	65.	20.	16.	0.27	1265.17	12.60
HYDROGRAPH AT	S2X	112.	12.30	21.	7.	5.	0.09		
3 COMBINED AT	Node62	1557.	12.50	366.	114.	91.	1.58		
ROUTED TO	R14A	1544.	12.60	366.	114.	91.	1.58		
HYDROGRAPH AT	S2W	190.	12.30	36.	11.	9.	0.16		
2 COMBINED AT	Node57	1662.	12.60	402.	125.	100.	1.74		
ROUTED TO	R13	1622.	12.60	402.	125.	100.	1.74		
HYDROGRAPH AT	S2V	278.	12.10	43.	13.	11.	0.21		
2 COMBINED AT	Node54	1714.	12.60	445.	138.	111.	1.95		
ROUTED TO	R12	1599.	12.80	445.	138.	111.	1.95		
HYDROGRAPH AT	S2S	328.	12.10	44.	14.	11.	0.22		
ROUTED TO	R24B	308.	12.10	44.	14.	11.	0.22	1279.05	12.10
HYDROGRAPH AT	S2R	303.	12.10	43.	13.	11.	0.21		
2 COMBINED AT	REBEL	612.	12.10	87.	27.	22.	0.43		
ROUTED TO	56THA	609.	12.20	87.	27.	22.	0.43	1292.93	12.20
ROUTED TO	93	533.	12.30	87.	27.	22.	0.43	1278.11	12.30
ROUTED TO	S53RD	415.	12.40	87.	27.	22.	0.43	1269.03	12.40
ROUTED TO	R23A	414.	12.40	87.	27.	22.	0.43	1269.59	12.40
HYDROGRAPH AT	S2Q	200.	12.10	31.	10.	8.	0.14		

2 COMBINED AT	Node95	532.	12.30	118.	36.	29.	0.57	
ROUTED TO	R22	530.	12.40	118.	36.	29.	0.57	
HYDROGRAPH AT	S2P	187.	12.20	35.	11.	9.	0.19	
2 COMBINED AT	Node92	700.	12.30	153.	47.	38.	0.76	
ROUTED TO	R21	456.	12.70	150.	47.	38.	0.76	
HYDROGRAPH AT	S2U	158.	12.20	26.	8.	6.	0.12	
HYDROGRAPH AT	S2O	315.	12.30	60.	18.	15.	0.27	
4 COMBINED AT	40THB	2216.	12.70	678.	212.	170.	3.10	
ROUTED TO	R11	2203.	12.80	678.	212.	170.	3.10	
HYDROGRAPH AT	S2T	471.	12.30	90.	28.	22.	0.36	
ROUTED TO	R20	428.	12.40	90.	28.	22.	0.36	
2 COMBINED AT	Node44	2466.	12.80	767.	240.	193.	3.46	
ROUTED TO	R10	2369.	12.90	765.	240.	193.	3.46	
HYDROGRAPH AT	S2M2	228.	12.30	44.	14.	11.	0.23	
ROUTED TO	S2MDAM	37.	13.50	33.	24.	23.	0.23	1.70 13.50
ROUTED TO	R19B	37.	13.60	33.	24.	23.	0.23	1254.69 13.60
HYDROGRAPH AT	S2M1	210.	12.10	32.	10.	8.	0.16	
HYDROGRAPH AT	S2N	159.	12.30	32.	10.	8.	0.16	
3 COMBINED AT	YANKB	371.	12.20	96.	43.	39.	0.55	
ROUTED TO	191	345.	12.30	96.	43.	39.	0.55	1252.98 12.30
ROUTED TO	R19A	320.	12.40	95.	43.	39.	0.55	1244.73 12.40
HYDROGRAPH AT	S2L	290.	12.10	40.	12.	10.	0.17	
2 COMBINED AT	40THA	507.	12.20	135.	56.	48.	0.72	
ROUTED TO	83	477.	12.30	135.	56.	48.	0.72	1240.68 12.30
ROUTED TO	R18B	471.	12.40	135.	56.	48.	0.72	1237.30 12.40
HYDROGRAPH AT	S2K	420.	12.20	77.	24.	19.	0.31	
2 COMBINED AT	Node31	877.	12.30	212.	80.	68.	1.03	
ROUTED TO	R18A	839.	12.40	212.	80.	68.	1.03	1226.90 12.40
HYDROGRAPH AT	S2J	300.	12.40	66.	21.	17.	0.23	
2 COMBINED AT	Node28	1138.	12.40	277.	101.	84.	1.26	
ROUTED TO	R17	1073.	12.50	277.	101.	84.	1.26	
2 COMBINED AT	Node25	3193.	12.80	1041.	341.	277.	4.72	
ROUTED TO	R9	3157.	12.90	1041.	341.	277.	4.72	
HYDROGRAPH AT	S2H	308.	12.10	49.	15.	12.	0.20	
HYDROGRAPH AT	S2I1	173.	12.20	28.	9.	7.	0.11	
HYDROGRAPH AT	S2I2	211.	12.40	47.	14.	12.	0.22	
4 COMBINED AT	Node21	3353.	12.80	1161.	379.	307.	5.25	
ROUTED TO	R8	3356.	12.90	1161.	379.	307.	5.25	
HYDROGRAPH AT	S2G	132.	12.20	23.	7.	6.	0.09	
2 COMBINED AT	ROKEBY	3387.	12.90	1182.	386.	313.	5.34	
ROUTED TO	R7C	3360.	12.90	1182.	386.	313.	5.34	
HYDROGRAPH AT	S2F2	251.	12.20	44.	14.	11.	0.18	
2 COMBINED AT	Node15	3423.	12.90	1224.	400.	324.	5.52	
ROUTED TO	R7B	3407.	13.00	1223.	400.	324.	5.52	
HYDROGRAPH AT	S2E	313.	12.30	62.	19.	16.	0.25	
ROUTED TO	S2EDAM	77.	13.20	41.	19.	15.	0.25	1222.98 13.20
HYDROGRAPH AT	S2F1	194.	12.20	32.	10.	8.	0.15	
3 COMBINED AT	Node11	3519.	13.00	1296.	429.	347.	5.92	
ROUTED TO	R7A	3482.	13.10	1295.	429.	347.	5.92	
2 COMBINED AT	27THB	3500.	13.10	1307.	434.	351.	5.99	
ROUTED TO	R6B	3012.	13.40	1306.	434.	351.	5.99	
HYDROGRAPH AT	S5A	291.	12.20	52.	16.	13.	0.22	
ROUTED TO	PondS5	129.	12.70	44.	16.	13.	0.22	1268.53 12.70
ROUTED TO	R33	110.	13.00	44.	16.	13.	0.22	
HYDROGRAPH AT	S5B	509.	12.20	87.	27.	22.	0.37	
2 COMBINED AT	S5up	530.	12.20	129.	43.	35.	0.59	
ROUTED TO	R32	399.	12.40	129.	43.	35.	0.59	

HYDROGRAPH AT	S5C	294.	12.20	52.	16.	13.	0.23	
2 COMBINED AT	Node12	660.	12.30	181.	59.	48.	0.82	
ROUTED TO	R31	454.	12.70	179.	59.	48.	0.82	
HYDROGRAPH AT	S5E	257.	12.20	41.	13.	10.	0.18	
ROUTED TO	R34	98.	12.60	41.	13.	10.	0.18	
HYDROGRAPH AT	S5F	408.	12.10	56.	17.	14.	0.28	
HYDROGRAPH AT	S5G	259.	12.00	31.	10.	8.	0.15	
4 COMBINED AT	RRjctn	873.	12.10	306.	99.	79.	1.43	
HYDROGRAPH AT	S5D	572.	12.10	78.	24.	19.	0.34	
2 COMBINED AT	Saltil	1445.	12.10	382.	123.	98.	1.77	
HYDROGRAPH AT	S2B1	135.	12.30	26.	8.	6.	0.14	
3 COMBINED AT	BNSFB	3576.	13.30	1707.	564.	456.	7.90	
ROUTED TO	R6A	3566.	13.40	1707.	564.	456.	7.90	
HYDROGRAPH AT	S1G	291.	12.20	53.	17.	13.	0.19	
HYDROGRAPH AT	S1F	219.	12.30	46.	15.	12.	0.14	
2 COMBINED AT	Node12	505.	12.30	99.	32.	26.	0.33	
ROUTED TO	R5	479.	12.40	99.	32.	26.	0.33	
HYDROGRAPH AT	S1E	323.	12.10	50.	16.	13.	0.17	
ROUTED TO	27THA	122.	12.50	48.	15.	12.	0.17	
ROUTED TO	R3	102.	13.00	47.	15.	12.	0.17	
HYDROGRAPH AT	S1D	457.	12.10	65.	21.	17.	0.20	
3 COMBINED AT	Node11	824.	12.20	208.	68.	54.	0.70	
ROUTED TO	D37	760.	12.40	208.	68.	54.	0.70	1207.51 12.40
ROUTED TO	R2	748.	12.40	208.	68.	54.	0.70	
HYDROGRAPH AT	S1C	269.	12.30	50.	16.	13.	0.19	
ROUTED TO	PONDN	260.	12.30	49.	16.	13.	0.19	111.79 12.30
HYDROGRAPH AT	S1B	142.	12.10	20.	6.	5.	0.11	
2 COMBINED AT	Node14	348.	12.20	68.	22.	17.	0.30	
ROUTED TO	R4	346.	12.30	68.	22.	17.	0.30	
ROUTED TO	PONDK	276.	12.50	67.	22.	17.	0.30	93.69 12.50
2 COMBINED AT	Node10	1019.	12.50	274.	89.	72.	1.00	
ROUTED TO	R1B	1001.	12.50	274.	89.	72.	1.00	
HYDROGRAPH AT	S1A3	194.	12.20	35.	11.	9.	0.17	
2 COMBINED AT	Node9	1130.	12.50	309.	100.	81.	1.17	
DIVERSION TO	BNDitc	554.	12.50	128.	40.	32.	1.17	
HYDROGRAPH AT	Node9A	576.	12.50	181.	60.	48.	1.17	
ROUTED TO	R1A	572.	12.50	181.	60.	48.	1.17	1178.95 12.50
HYDROGRAPH AT	S1A1	324.	12.10	42.	13.	10.	0.29	
2 COMBINED AT	14TH	648.	12.50	223.	73.	59.	1.46	
HYDROGRAPH AT	S1A4	99.	12.10	14.	4.	3.	0.06	
HYDROGRAPH AT	BNDitc	554.	12.50	128.	40.	32.	0.00	
2 COMBINED AT	Yankee	586.	12.50	141.	44.	36.	0.06	
HYDROGRAPH AT	S2B2	80.	12.20	13.	4.	3.	0.07	
ROUTED TO	det-u	60.	12.40	13.	4.	3.	0.07	103.55 12.40
HYDROGRAPH AT	S2A	255.	12.10	33.	10.	8.	0.24	
HYDROGRAPH AT	S2C	516.	12.20	82.	26.	20.	0.35	
6 COMBINED AT	NULLB	4181.	13.20	2197.	722.	582.	10.08	

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

25-year Storm
for
Existing Land Use Conditions

25 YEAR

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	S2B3	109.	12.20	19.	6.	5.	0.07		
ROUTED TO	PONDA	106.	12.30	19.	6.	5.	0.07	121.22	12.30
ROUTED TO	R6C	22.	13.10	15.	6.	5.	0.07		
HYDROGRAPH AT	S2AD	408.	12.10	54.	17.	14.	0.17		
ROUTED TO	202	400.	12.10	54.	17.	14.	0.17	1326.22	12.10
ROUTED TO	66TH	314.	12.20	54.	17.	14.	0.17	1317.86	12.20
ROUTED TO	R16C	304.	12.30	54.	17.	14.	0.17	1343.22	12.30
HYDROGRAPH AT	S2AC	270.	12.10	38.	12.	10.	0.15		
2 COMBINED AT	Node84	528.	12.20	92.	29.	23.	0.32		
ROUTED TO	R16B	525.	12.20	92.	29.	23.	0.32	1289.49	12.20
HYDROGRAPH AT	S2AF	351.	12.30	66.	21.	17.	0.22		
ROUTED TO	R26B	351.	12.30	66.	21.	17.	0.22	1304.57	12.30
HYDROGRAPH AT	S2AE	275.	12.20	49.	15.	12.	0.17		
2 COMBINED AT	Node19	615.	12.30	115.	36.	29.	0.39		
ROUTED TO	R26A	617.	12.30	115.	36.	29.	0.39	1300.16	12.30
ROUTED TO	201	612.	12.30	115.	36.	29.	0.39	1294.80	12.30
2 COMBINED AT	R16A	1115.	12.30	207.	65.	52.	0.71		
ROUTED TO	R16A	1084.	12.30	207.	65.	52.	0.71	1285.21	12.30
HYDROGRAPH AT	S2AB	323.	12.20	54.	17.	13.	0.20		
2 COMBINED AT	Node75	1379.	12.30	261.	82.	65.	0.91		
ROUTED TO	R15	1248.	12.40	261.	82.	65.	0.91		
HYDROGRAPH AT	S2AA	236.	12.30	48.	15.	12.	0.20		
2 COMBINED AT	56THB	1476.	12.40	309.	96.	77.	1.11		
ROUTED TO	R14C	1432.	12.50	309.	96.	77.	1.11		
HYDROGRAPH AT	S2Z	213.	12.10	32.	10.	8.	0.11		
ROUTED TO	91	208.	12.20	32.	10.	8.	0.11	1279.02	12.20
2 COMBINED AT	Node64	1529.	12.50	341.	106.	85.	1.22		
ROUTED TO	R14B	1527.	12.50	341.	106.	85.	1.22		
HYDROGRAPH AT	S2Y	416.	12.30	79.	25.	20.	0.27		
ROUTED TO	90	391.	12.40	79.	25.	20.	0.27	1289.52	12.40
ROUTED TO	R25	379.	12.50	79.	25.	20.	0.27	2.41	12.50
ROUTED TO	CLV310	319.	12.70	79.	25.	20.	0.27	1265.83	12.70
HYDROGRAPH AT	S2X	137.	12.30	26.	8.	6.	0.09		
3 COMBINED AT	Node62	1927.	12.50	446.	139.	112.	1.58		
ROUTED TO	R14A	1896.	12.60	446.	139.	112.	1.58		
HYDROGRAPH AT	S2W	233.	12.30	45.	14.	11.	0.16		
2 COMBINED AT	Node57	2072.	12.50	490.	153.	123.	1.74		
ROUTED TO	R13	2030.	12.60	490.	153.	123.	1.74		
HYDROGRAPH AT	S2V	348.	12.10	54.	17.	13.	0.21		
2 COMBINED AT	Node54	2144.	12.60	544.	170.	136.	1.95		
ROUTED TO	R12	1955.	12.80	543.	170.	136.	1.95		
HYDROGRAPH AT	S2S	410.	12.10	54.	17.	14.	0.22		
ROUTED TO	R24B	389.	12.10	54.	17.	14.	0.22	1279.30	12.10
HYDROGRAPH AT	S2R	378.	12.10	54.	17.	13.	0.21		
2 COMBINED AT	REBEL	767.	12.10	108.	33.	27.	0.43		
ROUTED TO	56THA	743.	12.20	108.	33.	27.	0.43	1293.15	12.20
ROUTED TO	93	652.	12.30	108.	33.	27.	0.43	1279.31	12.30
ROUTED TO	S53RD	504.	12.40	108.	33.	27.	0.43	1270.02	12.40
ROUTED TO	R23A	507.	12.50	108.	33.	27.	0.43	1270.05	12.50
HYDROGRAPH AT	S2Q	247.	12.10	38.	12.	9.	0.14		

2 COMBINED AT	Node95	643.	12.30	146.	45.	36.	0.57	
ROUTED TO	R22	640.	12.40	146.	45.	36.	0.57	
HYDROGRAPH AT	S2P	238.	12.20	44.	14.	11.	0.19	
2 COMBINED AT	Node92	858.	12.30	190.	59.	47.	0.76	
ROUTED TO	R21	605.	12.70	186.	59.	47.	0.76	
HYDROGRAPH AT	S2U	196.	12.20	32.	10.	8.	0.12	
HYDROGRAPH AT	S2O	388.	12.30	73.	23.	18.	0.27	
4 COMBINED AT	40THB	2783.	12.70	832.	261.	209.	3.10	
ROUTED TO	R11	2735.	12.80	832.	261.	209.	3.10	
HYDROGRAPH AT	S2T	570.	12.30	109.	34.	27.	0.36	
ROUTED TO	R20	535.	12.40	109.	34.	27.	0.36	
2 COMBINED AT	Node44	3036.	12.80	939.	295.	237.	3.46	
ROUTED TO	R10	2971.	12.90	938.	295.	237.	3.46	
HYDROGRAPH AT	S2M2	288.	12.30	55.	17.	14.	0.23	
ROUTED TO	S2MDAM	44.	13.50	38.	26.	25.	0.23	2.20 13.50
ROUTED TO	R19B	44.	13.60	38.	26.	25.	0.23	1254.75 13.60
HYDROGRAPH AT	S2M1	264.	12.10	40.	12.	10.	0.16	
HYDROGRAPH AT	S2N	199.	12.30	40.	12.	10.	0.16	
3 COMBINED AT	YANKB	461.	12.20	115.	50.	44.	0.55	
ROUTED TO	191	421.	12.30	115.	50.	44.	0.55	1253.81 12.30
ROUTED TO	R19A	393.	12.40	115.	50.	44.	0.55	1244.91 12.40
HYDROGRAPH AT	S2L	354.	12.10	49.	15.	12.	0.17	
2 COMBINED AT	40THA	611.	12.20	163.	65.	56.	0.72	
ROUTED TO	83	559.	12.40	163.	65.	56.	0.72	1241.56 12.40
ROUTED TO	R18B	553.	12.40	163.	65.	56.	0.72	1237.58 12.40
HYDROGRAPH AT	S2K	509.	12.20	94.	29.	23.	0.31	
2 COMBINED AT	Node31	1035.	12.30	256.	95.	80.	1.03	
ROUTED TO	R18A	990.	12.40	256.	95.	79.	1.03	1227.10 12.40
HYDROGRAPH AT	S2J	355.	12.40	78.	25.	20.	0.23	
2 COMBINED AT	Node28	1345.	12.40	333.	120.	99.	1.26	
ROUTED TO	R17	1258.	12.50	333.	120.	99.	1.26	
2 COMBINED AT	Node25	4012.	12.80	1270.	414.	336.	4.72	
ROUTED TO	R9	3966.	12.90	1270.	414.	336.	4.72	
HYDROGRAPH AT	S2H	376.	12.10	59.	18.	15.	0.20	
HYDROGRAPH AT	S2I1	209.	12.20	33.	10.	8.	0.11	
HYDROGRAPH AT	S2I2	262.	12.40	58.	18.	14.	0.22	
4 COMBINED AT	Node21	4241.	12.80	1417.	461.	373.	5.25	
ROUTED TO	R8	4229.	12.80	1416.	461.	373.	5.25	
HYDROGRAPH AT	S2G	160.	12.20	27.	8.	7.	0.09	
2 COMBINED AT	ROKEBY	4274.	12.80	1443.	470.	380.	5.34	
ROUTED TO	R7C	4187.	13.00	1442.	470.	380.	5.34	
HYDROGRAPH AT	S2F2	306.	12.20	53.	17.	13.	0.18	
2 COMBINED AT	Node15	4259.	12.90	1493.	486.	393.	5.52	
ROUTED TO	R7B	4266.	13.00	1493.	486.	393.	5.52	
HYDROGRAPH AT	S2E	380.	12.30	75.	24.	19.	0.25	
ROUTED TO	S2EDAM	117.	13.00	53.	23.	19.	0.25	1223.40 13.00
HYDROGRAPH AT	S2F1	240.	12.20	40.	12.	10.	0.15	
3 COMBINED AT	Node11	4426.	13.00	1584.	522.	422.	5.92	
ROUTED TO	R7A	4329.	13.10	1584.	522.	422.	5.92	
2 COMBINED AT	27THB	4351.	13.10	1599.	527.	426.	5.99	
ROUTED TO	R6B	3622.	13.50	1597.	527.	426.	5.99	
HYDROGRAPH AT	S5A	356.	12.20	63.	20.	16.	0.22	
ROUTED TO	PondS5	192.	12.60	54.	20.	16.	0.22	1269.02 12.60
ROUTED TO	R33	154.	12.90	54.	20.	16.	0.22	
HYDROGRAPH AT	S5B	622.	12.20	106.	33.	26.	0.37	
2 COMBINED AT	S5up	647.	12.20	158.	53.	42.	0.59	
ROUTED TO	R32	487.	12.50	158.	53.	42.	0.59	

HYDROGRAPH AT	S5C	361.	12.20	64.	20.	16.	0.23	
2 COMBINED AT	S38th	800.	12.30	221.	72.	58.	0.82	
ROUTED TO	R31	556.	12.80	220.	72.	58.	0.82	
HYDROGRAPH AT	S5E	315.	12.20	50.	16.	13.	0.18	
ROUTED TO	R34	109.	12.60	50.	16.	13.	0.18	
HYDROGRAPH AT	S5F	510.	12.10	69.	21.	17.	0.28	
HYDROGRAPH AT	S5G	323.	12.00	38.	12.	10.	0.15	
4 COMBINED AT	RRjctn	1088.	12.10	376.	121.	97.	1.43	
HYDROGRAPH AT	S5D	701.	12.10	95.	29.	24.	0.34	
2 COMBINED AT	Saltil	1789.	12.10	470.	151.	121.	1.77	
HYDROGRAPH AT	S2B1	171.	12.30	33.	10.	8.	0.14	
3 COMBINED AT	BNSFB	4287.	13.40	2092.	688.	555.	7.90	
ROUTED TO	R6A	4184.	13.60	2092.	688.	555.	7.90	
HYDROGRAPH AT	S1G	346.	12.20	63.	20.	16.	0.19	
HYDROGRAPH AT	S1F	254.	12.30	54.	18.	14.	0.14	
2 COMBINED AT	Node12	594.	12.30	117.	38.	30.	0.33	
ROUTED TO	R5	565.	12.40	117.	38.	30.	0.33	
HYDROGRAPH AT	S1E	381.	12.10	59.	19.	15.	0.17	
ROUTED TO	27THA	140.	12.60	57.	18.	15.	0.17	
ROUTED TO	R3	124.	13.00	56.	18.	15.	0.17	
HYDROGRAPH AT	S1D	532.	12.10	75.	25.	20.	0.20	
3 COMBINED AT	Node11	975.	12.20	245.	80.	64.	0.70	
ROUTED TO	D37	876.	12.40	245.	80.	64.	0.70	1208.29 12.40
ROUTED TO	R2	864.	12.50	245.	80.	64.	0.70	
HYDROGRAPH AT	S1C	322.	12.20	60.	19.	15.	0.19	
ROUTED TO	PONDN	314.	12.30	59.	19.	15.	0.19	111.92 12.30
HYDROGRAPH AT	S1B	181.	12.10	25.	8.	6.	0.11	
2 COMBINED AT	Node14	431.	12.20	83.	27.	21.	0.30	
ROUTED TO	R4	432.	12.30	83.	27.	21.	0.30	
ROUTED TO	PONDK	353.	12.50	82.	27.	21.	0.30	93.94 12.50
2 COMBINED AT	Node10	1218.	12.50	326.	107.	86.	1.00	
ROUTED TO	R1B	1201.	12.60	326.	107.	86.	1.00	
HYDROGRAPH AT	S1A3	242.	12.20	43.	13.	11.	0.17	
2 COMBINED AT	Node9	1355.	12.50	369.	120.	96.	1.17	
DIVERSION TO	BNDitc	690.	12.50	158.	49.	40.	1.17	
HYDROGRAPH AT	Node9A	665.	12.50	211.	71.	57.	1.17	
ROUTED TO	R1A	665.	12.50	211.	71.	57.	1.17	1179.33 12.50
HYDROGRAPH AT	S1A1	423.	12.00	55.	17.	13.	0.29	
2 COMBINED AT	14TH	765.	12.40	266.	87.	70.	1.46	
HYDROGRAPH AT	S1A4	121.	12.10	17.	5.	4.	0.06	
HYDROGRAPH AT	BNDitc	690.	12.50	158.	49.	40.	0.00	
2 COMBINED AT	Yankee	729.	12.50	175.	55.	44.	0.06	
HYDROGRAPH AT	S2B2	101.	12.20	17.	5.	4.	0.07	
ROUTED TO	det-u	83.	12.30	16.	5.	4.	0.07	103.71 12.30
HYDROGRAPH AT	S2A	335.	12.10	43.	13.	11.	0.24	
HYDROGRAPH AT	S2C	629.	12.20	100.	31.	25.	0.35	
6 COMBINED AT	NULLB	4931.	13.00	2689.	880.	709.	10.08	

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

50-year Storm
for
Existing Land Use Conditions

50 YEAR

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	S2B3	128.	12.20	22.	7.	6.	0.07		
ROUTED TO	PONDA	125.	12.30	22.	7.	6.	0.07	121.43	12.30
ROUTED TO	R6C	26.	13.10	18.	7.	5.	0.07		
HYDROGRAPH AT	S2AD	470.	12.10	62.	20.	16.	0.17		
ROUTED TO	202	461.	12.10	62.	20.	16.	0.17	1326.34	12.10
ROUTED TO	66TH	419.	12.20	62.	20.	16.	0.17	1318.44	12.20
ROUTED TO	R16C	367.	12.30	62.	20.	16.	0.17	1343.37	12.30
HYDROGRAPH AT	S2AC	320.	12.10	45.	14.	11.	0.15		
2 COMBINED AT	Node84	636.	12.20	108.	34.	27.	0.32		
ROUTED TO	R16B	621.	12.20	108.	34.	27.	0.32	1289.63	12.20
HYDROGRAPH AT	S2AF	408.	12.30	77.	24.	19.	0.22		
ROUTED TO	R26B	409.	12.30	77.	24.	19.	0.22	1304.73	12.30
HYDROGRAPH AT	S2AE	322.	12.20	57.	18.	14.	0.17		
2 COMBINED AT	Node19	717.	12.30	134.	42.	34.	0.39		
ROUTED TO	R26A	722.	12.30	134.	42.	34.	0.39	1300.48	12.30
ROUTED TO	201	718.	12.30	134.	42.	34.	0.39	1294.93	12.30
2 COMBINED AT	R16A	1323.	12.30	241.	76.	61.	0.71		
ROUTED TO	R16A	1293.	12.30	241.	76.	61.	0.71	1285.35	12.30
HYDROGRAPH AT	S2AB	381.	12.20	64.	20.	16.	0.20		
2 COMBINED AT	Node75	1639.	12.30	305.	95.	77.	0.91		
ROUTED TO	R15	1480.	12.40	305.	95.	77.	0.91		
HYDROGRAPH AT	S2AA	283.	12.30	57.	18.	14.	0.20		
2 COMBINED AT	56THB	1752.	12.40	362.	113.	91.	1.11		
ROUTED TO	R14C	1699.	12.50	362.	113.	91.	1.11		
HYDROGRAPH AT	S2Z	248.	12.10	38.	12.	9.	0.11		
ROUTED TO	91	242.	12.20	38.	12.	9.	0.11	1279.68	12.20
2 COMBINED AT	Node64	1814.	12.50	399.	125.	100.	1.22		
ROUTED TO	R14B	1821.	12.50	399.	125.	100.	1.22		
HYDROGRAPH AT	S2Y	485.	12.30	92.	29.	23.	0.27		
ROUTED TO	90	439.	12.40	92.	29.	23.	0.27	1290.34	12.40
ROUTED TO	R25	430.	12.50	92.	29.	23.	0.27	2.54	12.50
ROUTED TO	CLV310	408.	12.60	92.	29.	23.	0.27	1266.17	12.60
HYDROGRAPH AT	S2X	160.	12.30	30.	9.	8.	0.09		
3 COMBINED AT	Node62	2277.	12.50	521.	163.	131.	1.58		
ROUTED TO	R14A	2266.	12.50	521.	163.	131.	1.58		
HYDROGRAPH AT	S2W	273.	12.30	52.	16.	13.	0.16		
2 COMBINED AT	Node57	2475.	12.50	573.	180.	144.	1.74		
ROUTED TO	R13	2427.	12.60	573.	180.	144.	1.74		
HYDROGRAPH AT	S2V	413.	12.10	63.	20.	16.	0.21		
2 COMBINED AT	Node54	2559.	12.60	636.	199.	160.	1.95		
ROUTED TO	R12	2350.	12.70	636.	199.	160.	1.95		
HYDROGRAPH AT	S2S	487.	12.10	65.	20.	16.	0.22		
ROUTED TO	R24B	465.	12.10	65.	20.	16.	0.22	1279.53	12.10
HYDROGRAPH AT	S2R	449.	12.10	63.	20.	16.	0.21		
2 COMBINED AT	REBEL	914.	12.10	128.	40.	32.	0.43		
ROUTED TO	56THA	878.	12.20	128.	40.	32.	0.43	1293.31	12.20
ROUTED TO	93	747.	12.30	128.	40.	32.	0.43	1280.21	12.30
ROUTED TO	S53RD	574.	12.50	128.	40.	32.	0.43	1270.76	12.50
ROUTED TO	R23A	574.	12.50	128.	40.	32.	0.43	1270.30	12.50
HYDROGRAPH AT	S2Q	292.	12.10	45.	14.	11.	0.14		

2 COMBINED AT	Node95	730.	12.30	172.	53.	43.	0.57	
ROUTED TO	R22	725.	12.40	172.	53.	43.	0.57	
HYDROGRAPH AT	S2P	287.	12.20	53.	16.	13.	0.19	
2 COMBINED AT	Node92	996.	12.30	225.	70.	56.	0.76	
ROUTED TO	R21	716.	12.70	221.	70.	56.	0.76	
HYDROGRAPH AT	S2U	231.	12.20	37.	12.	9.	0.12	
HYDROGRAPH AT	S2O	457.	12.30	86.	27.	21.	0.27	
4 COMBINED AT	40THB	3344.	12.70	977.	307.	247.	3.10	
ROUTED TO	R11	3300.	12.80	977.	307.	247.	3.10	
HYDROGRAPH AT	S2T	662.	12.30	126.	40.	32.	0.36	
ROUTED TO	R20	574.	12.40	126.	40.	32.	0.36	
2 COMBINED AT	Node44	3699.	12.70	1102.	347.	278.	3.46	
ROUTED TO	R10	3600.	12.80	1101.	347.	278.	3.46	
HYDROGRAPH AT	S2M2	344.	12.30	66.	20.	16.	0.23	
ROUTED TO	S2MDAM	52.	13.50	44.	28.	26.	0.23	2.61 13.50
ROUTED TO	R19B	52.	13.60	44.	28.	26.	0.23	1254.81 13.60
HYDROGRAPH AT	S2M1	315.	12.10	47.	15.	12.	0.16	
HYDROGRAPH AT	S2N	237.	12.30	47.	15.	12.	0.16	
3 COMBINED AT	YANKB	546.	12.20	135.	57.	50.	0.55	
ROUTED TO	191	484.	12.30	135.	57.	50.	0.55	1254.47 12.30
ROUTED TO	R19A	457.	12.40	135.	57.	50.	0.55	1245.04 12.40
HYDROGRAPH AT	S2L	414.	12.10	57.	18.	14.	0.17	
2 COMBINED AT	40THA	708.	12.20	191.	75.	64.	0.72	
ROUTED TO	83	655.	12.30	191.	75.	64.	0.72	1242.05 12.30
ROUTED TO	R18B	647.	12.40	191.	75.	64.	0.72	1237.86 12.40
HYDROGRAPH AT	S2K	593.	12.20	109.	34.	27.	0.31	
2 COMBINED AT	Node31	1196.	12.30	299.	109.	91.	1.03	
ROUTED TO	R18A	1142.	12.40	298.	109.	91.	1.03	1227.25 12.40
HYDROGRAPH AT	S2J	406.	12.40	90.	29.	23.	0.23	
2 COMBINED AT	Node28	1549.	12.40	387.	138.	114.	1.26	
ROUTED TO	R17	1444.	12.50	387.	138.	114.	1.26	
2 COMBINED AT	Node25	4860.	12.80	1486.	484.	392.	4.72	
ROUTED TO	R9	4824.	12.80	1486.	484.	392.	4.72	
HYDROGRAPH AT	S2H	439.	12.10	69.	21.	17.	0.20	
HYDROGRAPH AT	S2I1	242.	12.20	39.	12.	10.	0.11	
HYDROGRAPH AT	S2I2	310.	12.40	68.	21.	17.	0.22	
4 COMBINED AT	Node21	5148.	12.80	1658.	539.	436.	5.25	
ROUTED TO	R8	5137.	12.80	1658.	539.	436.	5.25	
HYDROGRAPH AT	S2G	186.	12.20	32.	10.	8.	0.09	
2 COMBINED AT	ROKEBY	5189.	12.80	1688.	549.	444.	5.34	
ROUTED TO	R7C	5137.	12.90	1688.	549.	444.	5.34	
HYDROGRAPH AT	S2F2	357.	12.20	62.	19.	15.	0.18	
2 COMBINED AT	Node15	5224.	12.90	1748.	568.	459.	5.52	
ROUTED TO	R7B	5209.	12.90	1747.	568.	459.	5.52	
HYDROGRAPH AT	S2E	442.	12.30	88.	28.	22.	0.25	
ROUTED TO	S2EDAM	153.	12.90	65.	27.	22.	0.25	1223.79 12.90
HYDROGRAPH AT	S2F1	282.	12.20	46.	14.	12.	0.15	
3 COMBINED AT	Node11	5422.	12.90	1857.	610.	493.	5.92	
ROUTED TO	R7A	5348.	13.00	1857.	610.	493.	5.92	
2 COMBINED AT	27THB	5373.	13.00	1875.	617.	498.	5.99	
ROUTED TO	R6B	4039.	13.60	1873.	617.	498.	5.99	
HYDROGRAPH AT	S5A	417.	12.20	74.	23.	18.	0.22	
ROUTED TO	PondS5	304.	12.50	63.	23.	18.	0.22	1269.14 12.50
ROUTED TO	R33	210.	12.60	63.	23.	18.	0.22	
HYDROGRAPH AT	S5B	729.	12.20	124.	39.	31.	0.37	
2 COMBINED AT	S5up	759.	12.20	185.	62.	49.	0.59	
ROUTED TO	R32	606.	12.50	185.	62.	49.	0.59	

HYDROGRAPH AT	S5C	425.	12.20	75.	23.	19.	0.23	
2 COMBINED AT	S38th	940.	12.40	260.	85.	68.	0.82	
ROUTED TO	R31	699.	12.70	258.	85.	68.	0.82	
HYDROGRAPH AT	S5E	369.	12.20	59.	18.	15.	0.18	
ROUTED TO	R34	119.	12.60	58.	18.	15.	0.18	
HYDROGRAPH AT	S5F	607.	12.10	82.	25.	20.	0.28	
HYDROGRAPH AT	S5G	384.	12.00	45.	14.	11.	0.15	
4 COMBINED AT	RRjctn	1281.	12.10	443.	143.	115.	1.43	
HYDROGRAPH AT	S5D	822.	12.10	111.	35.	28.	0.34	
2 COMBINED AT	Saltil	2104.	12.10	553.	177.	142.	1.77	
HYDROGRAPH AT	S2B1	205.	12.30	39.	12.	10.	0.14	
3 COMBINED AT	BNSFB	4854.	13.20	2457.	806.	650.	7.90	
ROUTED TO	R6A	4826.	13.40	2457.	806.	650.	7.90	
HYDROGRAPH AT	S1G	398.	12.20	73.	23.	19.	0.19	
HYDROGRAPH AT	S1F	286.	12.30	61.	20.	16.	0.14	
2 COMBINED AT	Node12	676.	12.30	133.	43.	35.	0.33	
ROUTED TO	R5	647.	12.40	133.	43.	35.	0.33	
HYDROGRAPH AT	S1E	435.	12.10	68.	22.	17.	0.17	
ROUTED TO	27THA	145.	12.60	66.	21.	17.	0.17	
ROUTED TO	R3	134.	13.20	65.	21.	17.	0.17	
HYDROGRAPH AT	S1D	600.	12.10	85.	28.	22.	0.20	
3 COMBINED AT	Node11	1115.	12.20	280.	92.	74.	0.70	
ROUTED TO	D37	957.	12.40	280.	92.	74.	0.70	1209.19 12.40
ROUTED TO	R2	936.	12.50	280.	92.	74.	0.70	
HYDROGRAPH AT	S1C	373.	12.20	70.	22.	18.	0.19	
ROUTED TO	PONDN	363.	12.30	68.	22.	18.	0.19	112.03 12.30
HYDROGRAPH AT	S1B	218.	12.10	30.	9.	7.	0.11	
2 COMBINED AT	Node14	508.	12.20	98.	31.	25.	0.30	
ROUTED TO	R4	500.	12.30	98.	31.	25.	0.30	
ROUTED TO	PONDK	426.	12.50	97.	31.	25.	0.30	94.14 12.50
2 COMBINED AT	Node10	1362.	12.50	375.	123.	99.	1.00	
ROUTED TO	R1B	1346.	12.60	375.	123.	99.	1.00	
HYDROGRAPH AT	S1A3	288.	12.20	51.	16.	13.	0.17	
2 COMBINED AT	Node9	1524.	12.50	426.	138.	111.	1.17	
DIVERSION TO	BNDitc	794.	12.50	187.	58.	47.	1.17	
HYDROGRAPH AT	Node9A	730.	12.50	239.	80.	65.	1.17	
ROUTED TO	R1A	729.	12.50	239.	80.	65.	1.17	1179.58 12.50
HYDROGRAPH AT	S1A1	525.	12.00	67.	20.	16.	0.29	
2 COMBINED AT	14TH	899.	12.10	305.	101.	81.	1.46	
HYDROGRAPH AT	S1A4	142.	12.10	20.	6.	5.	0.06	
HYDROGRAPH AT	BNDitc	794.	12.50	187.	58.	47.	0.00	
2 COMBINED AT	Yankee	840.	12.40	207.	64.	52.	0.06	
HYDROGRAPH AT	S2B2	121.	12.20	20.	6.	5.	0.07	
ROUTED TO	det-u	106.	12.30	20.	6.	5.	0.07	103.88 12.30
HYDROGRAPH AT	S2A	417.	12.00	53.	16.	13.	0.24	
HYDROGRAPH AT	S2C	735.	12.20	117.	37.	29.	0.35	
6 COMBINED AT	NULLB	5674.	12.20	3153.	1030.	830.	10.08	

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

100-year Storm
for
Existing Land Use Conditions

100 YEAR

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	S2B3	150.	12.20	26.	8.	6.	0.07		
ROUTED TO	PONDA	145.	12.30	26.	8.	6.	0.07	121.64	12.30
ROUTED TO	R6C	30.	13.10	21.	8.	6.	0.07		
HYDROGRAPH AT	S2AD	537.	12.10	71.	23.	18.	0.17		
ROUTED TO	202	535.	12.10	71.	23.	18.	0.17	1326.43	12.10
ROUTED TO	66TH	498.	12.20	71.	23.	18.	0.17	1318.65	12.20
ROUTED TO	R16C	440.	12.20	71.	23.	18.	0.17	1343.52	12.20
HYDROGRAPH AT	S2AC	376.	12.10	53.	16.	13.	0.15		
2 COMBINED AT	Node84	774.	12.20	124.	39.	31.	0.32		
ROUTED TO	R16B	752.	12.20	124.	39.	31.	0.32	1289.81	12.20
HYDROGRAPH AT	S2AF	470.	12.30	89.	28.	22.	0.22		
ROUTED TO	R26B	470.	12.30	89.	28.	22.	0.22	1304.90	12.30
HYDROGRAPH AT	S2AE	374.	12.20	66.	21.	17.	0.17		
2 COMBINED AT	Node19	827.	12.30	154.	49.	39.	0.39		
ROUTED TO	R26A	833.	12.30	154.	49.	39.	0.39	1300.72	12.30
ROUTED TO	201	838.	12.30	154.	49.	39.	0.39	1295.09	12.30
2 COMBINED AT	R16A	1554.	12.30	279.	88.	70.	0.71		
ROUTED TO	R16A	1521.	12.30	279.	88.	70.	0.71	1285.51	12.30
HYDROGRAPH AT	S2AB	443.	12.20	74.	23.	19.	0.20		
2 COMBINED AT	Node75	1924.	12.30	352.	111.	89.	0.91		
ROUTED TO	R15	1684.	12.40	352.	111.	89.	0.91		
HYDROGRAPH AT	S2AA	335.	12.30	67.	21.	17.	0.20		
2 COMBINED AT	56THB	2004.	12.40	419.	132.	106.	1.11		
ROUTED TO	R14C	1960.	12.50	419.	132.	106.	1.11		
HYDROGRAPH AT	S2Z	287.	12.10	43.	14.	11.	0.11		
ROUTED TO	91	268.	12.20	43.	14.	11.	0.11	1280.19	12.20
2 COMBINED AT	Node64	2095.	12.50	462.	145.	117.	1.22		
ROUTED TO	R14B	2091.	12.50	462.	145.	117.	1.22		
HYDROGRAPH AT	S2Y	560.	12.30	107.	34.	27.	0.27		
ROUTED TO	90	488.	12.40	107.	34.	27.	0.27	1291.18	12.40
ROUTED TO	R25	480.	12.50	107.	34.	27.	0.27	2.66	12.50
ROUTED TO	CLV310	467.	12.60	107.	34.	27.	0.27	1266.29	12.60
HYDROGRAPH AT	S2X	186.	12.30	35.	11.	9.	0.09		
3 COMBINED AT	Node62	2668.	12.50	604.	190.	152.	1.58		
ROUTED TO	R14A	2638.	12.50	604.	190.	152.	1.58		
HYDROGRAPH AT	S2W	317.	12.30	60.	19.	15.	0.16		
2 COMBINED AT	Node57	2881.	12.50	664.	209.	167.	1.74		
ROUTED TO	R13	2834.	12.60	664.	209.	167.	1.74		
HYDROGRAPH AT	S2V	485.	12.10	74.	23.	18.	0.21		
2 COMBINED AT	Node54	2987.	12.60	737.	232.	186.	1.95		
ROUTED TO	R12	2799.	12.70	737.	232.	186.	1.95		
HYDROGRAPH AT	S2S	572.	12.10	76.	24.	19.	0.22		
ROUTED TO	R24B	549.	12.10	76.	24.	19.	0.22	1279.75	12.10
HYDROGRAPH AT	S2R	526.	12.10	74.	23.	18.	0.21		
2 COMBINED AT	REBEL	1075.	12.10	150.	47.	37.	0.43		
ROUTED TO	56THA	1042.	12.10	150.	47.	37.	0.43	1293.46	12.10
ROUTED TO	93	830.	12.30	150.	47.	37.	0.43	1281.10	12.30
ROUTED TO	S53RD	646.	12.50	150.	47.	37.	0.43	1271.48	12.50
ROUTED TO	R23A	643.	12.50	150.	47.	37.	0.43	1270.53	12.50
HYDROGRAPH AT	S2Q	340.	12.10	52.	16.	13.	0.14		

2 COMBINED AT	Node95	813.	12.30	202.	63.	50.	0.57	
ROUTED TO	R22	806.	12.40	201.	63.	50.	0.57	
HYDROGRAPH AT	S2P	341.	12.20	62.	19.	15.	0.19	
2 COMBINED AT	Node92	1136.	12.30	263.	82.	66.	0.76	
ROUTED TO	R21	814.	12.70	259.	82.	66.	0.76	
HYDROGRAPH AT	S2U	270.	12.20	43.	14.	11.	0.12	
HYDROGRAPH AT	S2O	532.	12.30	100.	31.	25.	0.27	
4 COMBINED AT	40THB	3933.	12.70	1136.	358.	288.	3.10	
ROUTED TO	R11	3882.	12.70	1136.	358.	288.	3.10	
HYDROGRAPH AT	S2T	762.	12.30	145.	46.	37.	0.36	
ROUTED TO	R20	705.	12.40	145.	46.	37.	0.36	
2 COMBINED AT	Node44	4417.	12.70	1280.	404.	324.	3.46	
ROUTED TO	R10	4293.	12.80	1279.	404.	324.	3.46	
HYDROGRAPH AT	S2M2	406.	12.30	77.	24.	19.	0.23	
ROUTED TO	S2MDAM	61.	13.40	51.	31.	29.	0.23	3.06 13.50
ROUTED TO	R19B	61.	13.60	51.	31.	28.	0.23	1254.88 13.60
HYDROGRAPH AT	S2M1	371.	12.10	55.	17.	14.	0.16	
HYDROGRAPH AT	S2N	280.	12.30	55.	17.	14.	0.16	
3 COMBINED AT	YANKB	639.	12.20	157.	65.	56.	0.55	
ROUTED TO	191	551.	12.30	157.	65.	56.	0.55	1255.16 12.30
ROUTED TO	R19A	526.	12.50	157.	65.	56.	0.55	1245.18 12.50
HYDROGRAPH AT	S2L	478.	12.10	66.	21.	17.	0.17	
2 COMBINED AT	40THA	814.	12.20	222.	86.	72.	0.72	
ROUTED TO	83	813.	12.30	222.	86.	72.	0.72	1242.33 12.30
ROUTED TO	R18B	766.	12.40	222.	86.	72.	0.72	1238.17 12.40
HYDROGRAPH AT	S2K	683.	12.20	125.	39.	32.	0.31	
2 COMBINED AT	Node31	1408.	12.30	346.	125.	104.	1.03	
ROUTED TO	R18A	1333.	12.40	346.	125.	104.	1.03	1227.44 12.40
HYDROGRAPH AT	S2J	462.	12.40	102.	33.	26.	0.23	
2 COMBINED AT	Node28	1794.	12.40	447.	158.	130.	1.26	
ROUTED TO	R17	1692.	12.50	447.	158.	130.	1.26	
2 COMBINED AT	Node25	5734.	12.70	1724.	561.	454.	4.72	
ROUTED TO	R9	5702.	12.80	1723.	561.	454.	4.72	
HYDROGRAPH AT	S2H	507.	12.10	79.	25.	20.	0.20	
HYDROGRAPH AT	S2I1	278.	12.20	44.	14.	11.	0.11	
HYDROGRAPH AT	S2I2	362.	12.40	79.	25.	20.	0.22	
4 COMBINED AT	Node21	6075.	12.80	1923.	625.	505.	5.25	
ROUTED TO	R8	6082.	12.80	1922.	625.	505.	5.25	
HYDROGRAPH AT	S2G	214.	12.20	36.	11.	9.	0.09	
2 COMBINED AT	ROKEBY	6141.	12.80	1958.	636.	514.	5.34	
ROUTED TO	R7C	6073.	12.90	1957.	636.	514.	5.34	
HYDROGRAPH AT	S2F2	412.	12.20	71.	22.	18.	0.18	
2 COMBINED AT	Node15	6172.	12.90	2026.	659.	532.	5.52	
ROUTED TO	R7B	6181.	12.90	2026.	659.	532.	5.52	
HYDROGRAPH AT	S2E	509.	12.30	101.	32.	26.	0.25	
ROUTED TO	S2EDAM	244.	12.80	78.	31.	25.	0.25	1224.08 12.80
HYDROGRAPH AT	S2F1	329.	12.20	54.	17.	14.	0.15	
3 COMBINED AT	Node11	6468.	12.90	2156.	707.	571.	5.92	
ROUTED TO	R7A	6411.	12.90	2156.	707.	570.	5.92	
2 COMBINED AT	27THB	6441.	12.90	2177.	715.	577.	5.99	
ROUTED TO	R6B	4293.	13.60	2175.	715.	577.	5.99	
HYDROGRAPH AT	S5A	483.	12.20	85.	27.	21.	0.22	
ROUTED TO	PondS5	434.	12.40	74.	27.	21.	0.22	1269.29 12.40
ROUTED TO	R33	287.	12.60	74.	27.	21.	0.22	
HYDROGRAPH AT	S5B	844.	12.20	143.	45.	36.	0.37	
2 COMBINED AT	S5up	886.	12.20	216.	72.	57.	0.59	
ROUTED TO	R32	764.	12.50	216.	72.	57.	0.59	

HYDROGRAPH AT	S5C	494.	12.20	87.	27.	22.	0.23	
2 COMBINED AT	S38th	1140.	12.40	302.	99.	79.	0.82	
ROUTED TO	R31	870.	12.70	301.	99.	79.	0.82	
HYDROGRAPH AT	S5E	428.	12.20	68.	21.	17.	0.18	
ROUTED TO	R34	131.	12.70	68.	21.	17.	0.18	
HYDROGRAPH AT	S5F	713.	12.10	96.	30.	24.	0.28	
HYDROGRAPH AT	S5G	450.	12.00	53.	16.	13.	0.15	
4 COMBINED AT	RRjctn	1501.	12.10	516.	166.	134.	1.43	
HYDROGRAPH AT	S5D	954.	12.10	129.	40.	32.	0.34	
2 COMBINED AT	Saltil	2454.	12.10	644.	207.	166.	1.77	
HYDROGRAPH AT	S2B1	243.	12.30	46.	14.	11.	0.14	
3 COMBINED AT	BNSFB	5212.	13.00	2856.	936.	754.	7.90	
ROUTED TO	R6A	5196.	13.20	2856.	936.	754.	7.90	
HYDROGRAPH AT	S1G	453.	12.20	83.	26.	21.	0.19	
HYDROGRAPH AT	S1F	321.	12.30	68.	22.	18.	0.14	
2 COMBINED AT	Node12	764.	12.30	151.	49.	39.	0.33	
ROUTED TO	R5	733.	12.30	151.	49.	39.	0.33	
HYDROGRAPH AT	S1E	493.	12.10	77.	25.	20.	0.17	
ROUTED TO	27THA	151.	12.60	74.	24.	19.	0.17	
ROUTED TO	R3	141.	13.40	74.	24.	19.	0.17	
HYDROGRAPH AT	S1D	673.	12.10	96.	31.	25.	0.20	
3 COMBINED AT	Node11	1277.	12.20	317.	104.	84.	0.70	
ROUTED TO	D37	1058.	12.40	317.	104.	84.	0.70	1210.12 12.40
ROUTED TO	R2	1029.	12.60	317.	104.	84.	0.70	
HYDROGRAPH AT	S1C	427.	12.20	80.	25.	20.	0.19	
ROUTED TO	PONDN	416.	12.30	79.	25.	20.	0.19	112.15 12.30
HYDROGRAPH AT	S1B	258.	12.10	35.	11.	9.	0.11	
2 COMBINED AT	Node14	590.	12.20	114.	36.	29.	0.30	
ROUTED TO	R4	574.	12.30	114.	36.	29.	0.30	
ROUTED TO	PONDK	506.	12.50	112.	36.	29.	0.30	94.34 12.50
2 COMBINED AT	Node10	1531.	12.50	427.	140.	113.	1.00	
ROUTED TO	R1B	1499.	12.60	427.	140.	113.	1.00	
HYDROGRAPH AT	S1A3	339.	12.20	60.	19.	15.	0.17	
2 COMBINED AT	Node9	1689.	12.50	487.	159.	128.	1.17	
DIVERSION TO	BNDitc	897.	12.50	219.	68.	55.	1.17	
HYDROGRAPH AT	Node9A	792.	12.50	268.	91.	73.	1.17	
ROUTED TO	R1A	790.	12.50	268.	91.	73.	1.17	1179.78 12.50
HYDROGRAPH AT	S1A1	638.	12.00	80.	25.	20.	0.29	
2 COMBINED AT	14TH	1063.	12.10	348.	115.	93.	1.46	
HYDROGRAPH AT	S1A4	165.	12.10	23.	7.	6.	0.06	
HYDROGRAPH AT	BNDitc	897.	12.50	219.	68.	55.	0.00	
2 COMBINED AT	Yankee	954.	12.40	242.	75.	60.	0.06	
HYDROGRAPH AT	S2B2	142.	12.20	23.	7.	6.	0.07	
ROUTED TO	det-u	127.	12.30	23.	7.	6.	0.07	104.03 12.30
HYDROGRAPH AT	S2A	509.	12.00	64.	20.	16.	0.24	
HYDROGRAPH AT	S2C	850.	12.20	135.	42.	34.	0.35	
6 COMBINED AT	NULLB	6647.	12.20	3662.	1195.	963.	10.08	

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

500-year Storm
for
Existing Land Use Conditions

500 YEAR

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	S2B3	198.	12.20	34.	11.	9.	0.07		
ROUTED TO	PONDA	192.	12.30	34.	11.	9.	0.07	122.11	12.30
ROUTED TO	R6C	40.	13.10	28.	11.	9.	0.07		
HYDROGRAPH AT	S2AD	687.	12.10	92.	29.	24.	0.17		
ROUTED TO	202	699.	12.10	92.	29.	24.	0.17	1326.60	12.10
ROUTED TO	66TH	716.	12.10	92.	29.	24.	0.17	1319.14	12.10
ROUTED TO	R16C	638.	12.20	92.	29.	24.	0.17	1343.87	12.20
HYDROGRAPH AT	S2AC	501.	12.10	70.	22.	18.	0.15		
2 COMBINED AT	Node84	1081.	12.20	162.	51.	41.	0.32		
ROUTED TO	R16B	1064.	12.20	162.	51.	41.	0.32	1290.17	12.20
HYDROGRAPH AT	S2AF	608.	12.30	115.	36.	29.	0.22		
ROUTED TO	R26B	610.	12.30	115.	36.	29.	0.22	1305.22	12.30
HYDROGRAPH AT	S2AE	489.	12.20	86.	27.	22.	0.17		
2 COMBINED AT	Node19	1076.	12.30	201.	64.	51.	0.39		
ROUTED TO	R26A	1080.	12.30	201.	64.	51.	0.39	1301.11	12.30
ROUTED TO	201	1091.	12.30	201.	64.	51.	0.39	1295.38	12.30
2 COMBINED AT	R16A	2086.	12.20	363.	115.	92.	0.71		
ROUTED TO	R16A	2051.	12.30	363.	115.	92.	0.71	1285.83	12.30
HYDROGRAPH AT	S2AB	585.	12.20	97.	31.	25.	0.20		
2 COMBINED AT	Node75	2579.	12.30	460.	146.	117.	0.91		
ROUTED TO	R15	2201.	12.40	460.	146.	117.	0.91		
HYDROGRAPH AT	S2AA	452.	12.30	90.	28.	23.	0.20		
2 COMBINED AT	56THB	2631.	12.40	550.	174.	139.	1.11		
ROUTED TO	R14C	2541.	12.50	550.	174.	139.	1.11		
HYDROGRAPH AT	S2Z	374.	12.10	57.	18.	14.	0.11		
ROUTED TO	91	323.	12.20	57.	18.	14.	0.11	1281.25	12.20
2 COMBINED AT	Node64	2754.	12.50	606.	192.	154.	1.22		
ROUTED TO	R14B	2768.	12.50	606.	192.	154.	1.22		
HYDROGRAPH AT	S2Y	728.	12.30	139.	44.	35.	0.27		
ROUTED TO	90	609.	12.40	139.	44.	35.	0.27	1293.22	12.40
ROUTED TO	R25	598.	12.50	139.	44.	35.	0.27	2.96	12.50
ROUTED TO	CLV310	602.	12.50	139.	44.	35.	0.27	1266.46	12.50
HYDROGRAPH AT	S2X	243.	12.20	45.	14.	12.	0.09		
3 COMBINED AT	Node62	3545.	12.50	790.	250.	200.	1.58		
ROUTED TO	R14A	3522.	12.50	790.	250.	200.	1.58		
HYDROGRAPH AT	S2W	417.	12.30	79.	25.	20.	0.16		
2 COMBINED AT	Node57	3839.	12.50	869.	275.	221.	1.74		
ROUTED TO	R13	3726.	12.60	868.	275.	221.	1.74		
HYDROGRAPH AT	S2V	649.	12.10	98.	31.	25.	0.21		
2 COMBINED AT	Node54	3963.	12.50	967.	306.	245.	1.95		
ROUTED TO	R12	3729.	12.70	966.	306.	245.	1.95		
HYDROGRAPH AT	S2S	764.	12.10	101.	32.	25.	0.22		
ROUTED TO	R24B	740.	12.10	101.	32.	25.	0.22	1280.18	12.10
HYDROGRAPH AT	S2R	701.	12.10	98.	31.	25.	0.21		
2 COMBINED AT	REBEL	1441.	12.10	200.	62.	50.	0.43		
ROUTED TO	56THA	1376.	12.20	200.	62.	50.	0.43	1293.88	12.20
ROUTED TO	93	1013.	12.30	200.	62.	50.	0.43	1283.02	12.30
ROUTED TO	S53RD	839.	12.60	200.	62.	50.	0.43	1272.48	12.60
ROUTED TO	R23A	837.	12.60	200.	62.	50.	0.43	1271.05	12.60
HYDROGRAPH AT	S2Q	450.	12.10	68.	21.	17.	0.14		

2 COMBINED AT	Node95	991.	12.50	268.	84.	67.	0.57	
ROUTED TO	R22	985.	12.50	267.	84.	67.	0.57	
HYDROGRAPH AT	S2P	464.	12.20	84.	26.	21.	0.19	
2 COMBINED AT	Node92	1430.	12.30	351.	110.	88.	0.76	
ROUTED TO	R21	1089.	12.70	346.	110.	88.	0.76	
HYDROGRAPH AT	S2U	357.	12.20	57.	18.	14.	0.12	
HYDROGRAPH AT	S2O	702.	12.20	131.	41.	33.	0.27	
4 COMBINED AT	40THB	5266.	12.60	1498.	475.	381.	3.10	
ROUTED TO	R11	5250.	12.70	1497.	475.	381.	3.10	
HYDROGRAPH AT	S2T	986.	12.30	188.	60.	48.	0.36	
ROUTED TO	R20	935.	12.40	188.	60.	48.	0.36	
2 COMBINED AT	Node44	5852.	12.60	1684.	535.	429.	3.46	
ROUTED TO	R10	5745.	12.70	1682.	535.	429.	3.46	
HYDROGRAPH AT	S2M2	547.	12.30	103.	32.	26.	0.23	
ROUTED TO	S2MDAM	96.	13.30	69.	37.	34.	0.23	4.08 13.30
ROUTED TO	R19B	95.	13.40	68.	37.	34.	0.23	1255.06 13.40
HYDROGRAPH AT	S2M1	498.	12.10	74.	23.	18.	0.16	
HYDROGRAPH AT	S2N	375.	12.30	73.	23.	18.	0.16	
3 COMBINED AT	YANKB	852.	12.20	209.	83.	71.	0.55	
ROUTED TO	191	663.	12.40	209.	83.	71.	0.55	1256.59 12.40
ROUTED TO	R19A	652.	12.50	209.	83.	70.	0.55	1245.35 12.50
HYDROGRAPH AT	S2L	624.	12.10	86.	27.	22.	0.17	
2 COMBINED AT	40THA	1034.	12.20	293.	110.	92.	0.72	
ROUTED TO	83	1059.	12.20	293.	110.	92.	0.72	1242.57 12.20
ROUTED TO	R18B	992.	12.30	293.	110.	92.	0.72	1238.59 12.30
HYDROGRAPH AT	S2K	886.	12.20	162.	51.	41.	0.31	
2 COMBINED AT	Node31	1860.	12.30	453.	162.	133.	1.03	
ROUTED TO	R18A	1752.	12.40	453.	162.	133.	1.03	1227.72 12.40
HYDROGRAPH AT	S2J	585.	12.40	129.	42.	34.	0.23	
2 COMBINED AT	Node28	2337.	12.40	581.	203.	167.	1.26	
ROUTED TO	R17	2223.	12.50	581.	203.	167.	1.26	
2 COMBINED AT	Node25	7690.	12.70	2262.	738.	596.	4.72	
ROUTED TO	R9	7647.	12.70	2262.	738.	596.	4.72	
HYDROGRAPH AT	S2H	661.	12.10	103.	33.	26.	0.20	
HYDROGRAPH AT	S2I1	360.	12.10	57.	18.	15.	0.11	
HYDROGRAPH AT	S2I2	481.	12.40	105.	33.	26.	0.22	
4 COMBINED AT	Node21	8242.	12.70	2523.	822.	663.	5.25	
ROUTED TO	R8	8235.	12.70	2522.	822.	663.	5.25	
HYDROGRAPH AT	S2G	277.	12.20	47.	15.	12.	0.09	
2 COMBINED AT	ROKEBY	8330.	12.70	2568.	837.	675.	5.34	
ROUTED TO	R7C	8257.	12.80	2567.	837.	675.	5.34	
HYDROGRAPH AT	S2F2	536.	12.20	92.	29.	24.	0.18	
2 COMBINED AT	Node15	8412.	12.80	2658.	866.	698.	5.52	
ROUTED TO	R7B	8410.	12.80	2657.	866.	698.	5.52	
HYDROGRAPH AT	S2E	659.	12.30	131.	41.	33.	0.25	
ROUTED TO	S2EDAM	484.	12.60	109.	41.	33.	0.25	1224.34 12.60
HYDROGRAPH AT	S2F1	433.	12.20	71.	22.	18.	0.15	
3 COMBINED AT	Node11	8874.	12.80	2834.	929.	749.	5.92	
ROUTED TO	R7A	8816.	12.80	2834.	929.	749.	5.92	
2 COMBINED AT	27THB	8856.	12.80	2861.	940.	757.	5.99	
ROUTED TO	R6B	6702.	13.30	2860.	940.	757.	5.99	
HYDROGRAPH AT	S5A	633.	12.20	111.	35.	28.	0.22	
ROUTED TO	PondS5	628.	12.30	100.	35.	28.	0.22	1269.50 12.30
ROUTED TO	R33	456.	12.50	100.	35.	28.	0.22	
HYDROGRAPH AT	S5B	1103.	12.20	187.	59.	47.	0.37	
2 COMBINED AT	S5up	1290.	12.30	285.	94.	76.	0.59	
ROUTED TO	R32	1137.	12.50	285.	94.	76.	0.59	

HYDROGRAPH AT	S5C	650.	12.20	114.	36.	29.	0.23	
2 COMBINED AT	S38th	1642.	12.40	399.	130.	104.	0.82	
ROUTED TO	R31	1231.	12.70	397.	130.	104.	0.82	
HYDROGRAPH AT	S5E	560.	12.20	89.	28.	23.	0.18	
ROUTED TO	R34	160.	12.70	88.	28.	23.	0.18	
HYDROGRAPH AT	S5F	954.	12.10	129.	40.	32.	0.28	
HYDROGRAPH AT	S5G	600.	12.00	70.	22.	18.	0.15	
4 COMBINED AT	RRjctn	1993.	12.10	682.	220.	177.	1.43	
HYDROGRAPH AT	S5D	1249.	12.10	169.	53.	43.	0.34	
2 COMBINED AT	Saltil	3242.	12.10	850.	274.	220.	1.77	
HYDROGRAPH AT	S2B1	329.	12.30	62.	19.	15.	0.14	
3 COMBINED AT	BNSFB	7912.	13.30	3760.	1232.	992.	7.90	
ROUTED TO	R6A	7807.	13.40	3760.	1232.	992.	7.90	
HYDROGRAPH AT	S1G	577.	12.20	106.	34.	27.	0.19	
HYDROGRAPH AT	S1F	398.	12.30	84.	28.	23.	0.14	
2 COMBINED AT	Node12	961.	12.30	190.	62.	50.	0.33	
ROUTED TO	R5	923.	12.30	190.	62.	50.	0.33	
HYDROGRAPH AT	S1E	622.	12.10	97.	31.	25.	0.17	
ROUTED TO	27THA	165.	12.70	94.	31.	25.	0.17	
ROUTED TO	R3	153.	13.50	94.	31.	25.	0.17	
HYDROGRAPH AT	S1D	837.	12.10	120.	40.	32.	0.20	
3 COMBINED AT	Node11	1626.	12.20	398.	132.	106.	0.70	
ROUTED TO	D37	1359.	12.40	398.	132.	106.	0.70	1211.40 12.40
ROUTED TO	R2	1311.	12.50	398.	132.	106.	0.70	
HYDROGRAPH AT	S1C	549.	12.20	102.	33.	26.	0.19	
ROUTED TO	PONDN	535.	12.30	102.	33.	26.	0.19	112.43 12.30
HYDROGRAPH AT	S1B	351.	12.10	47.	15.	12.	0.11	
2 COMBINED AT	Node14	775.	12.20	150.	47.	38.	0.30	
ROUTED TO	R4	742.	12.30	149.	47.	38.	0.30	
ROUTED TO	PONDK	680.	12.40	148.	47.	38.	0.30	94.74 12.40
2 COMBINED AT	Node10	1987.	12.50	545.	179.	144.	1.00	
ROUTED TO	R1B	1917.	12.60	545.	179.	144.	1.00	
HYDROGRAPH AT	S1A3	453.	12.20	80.	25.	20.	0.17	
2 COMBINED AT	Node9	2145.	12.50	625.	204.	164.	1.17	
DIVERSION TO	BNDitc	1201.	12.50	294.	90.	73.	1.17	
HYDROGRAPH AT	Node9A	944.	12.50	331.	114.	92.	1.17	
ROUTED TO	R1A	943.	12.60	331.	114.	92.	1.17	1180.23 12.60
HYDROGRAPH AT	S1A1	902.	12.00	111.	34.	28.	0.29	
2 COMBINED AT	14TH	1444.	12.10	442.	148.	119.	1.46	
HYDROGRAPH AT	S1A4	217.	12.10	30.	9.	8.	0.06	
HYDROGRAPH AT	BNDitc	1201.	12.50	294.	90.	73.	0.00	
2 COMBINED AT	Yankee	1267.	12.50	324.	100.	80.	0.06	
HYDROGRAPH AT	S2B2	192.	12.20	32.	10.	8.	0.07	
ROUTED TO	det-u	175.	12.30	31.	10.	8.	0.07	104.36 12.30
HYDROGRAPH AT	S2A	725.	12.00	90.	28.	22.	0.24	
HYDROGRAPH AT	S2C	1107.	12.20	177.	56.	45.	0.35	
6 COMBINED AT	NULLB	9021.	13.30	4815.	1573.	1266.	10.08	

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

Built-out Projected Conditions Input File

```
HEC1 S/N: 1343001909        HMVersion: 6.33    Data File: C:\WINDOWS\TEMP\~vbh2553.TMP
```

```
*************************************
*                                   *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*                MAY   1991           *
*             VERSION 4.0.1E          *
*                                   *
*  RUN DATE  01/05/2004  TIME  17:30:05 *
*                                   *
*************************************
```

```
*************************************
*                                   *
*    U.S. ARMY CORPS OF ENGINEERS     *
*    HYDROLOGIC ENGINEERING CENTER    *
*         609 SECOND STREET           *
*       DAVIS, CALIFORNIA 95616       *
*           (916) 756-1104            *
*                                   *
*************************************
```

```
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
```

```
::::::::::::::::::::::::::::::::::::::::::::
::::::::::::::::::::::::::::::::::::::::::::
:::                                      :::
:::  Full Microcomputer Implementation   :::
:::                 by                   :::
:::        Haestad Methods, Inc.         :::
:::                                      :::
::::::::::::::::::::::::::::::::::::::::::::
::::::::::::::::::::::::::::::::::::::::::::
```

37 Brookside Road * Waterbury, Connecticut 06708 * (203) 755-1666

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

****

HEC-1 INPUT PAGE 1

```
LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
   1          ID  2-year Proj'd Landuse UPZ S-1, S-2/3 & S-5 Pres'd Min Corr Reg'l and Site A
   2          IT       6                    300
   3          IO       0       0

   4          KK  S2B3
   5          KM  S2B1
   6          KO                                    22
   7          BA    0.07
   8          PB    2.48
   9          IN       6
  10          PC  0.0000 0.00101 0.00202 0.00305 0.00408 0.00513 0.00618 0.00725 0.00832 0.00941
  11          PC  0.0105 0.01161 0.01272 0.01385 0.01498 0.01613 0.01728 0.01845 0.01962 0.02081
  12          PC  0.0220 0.02321 0.02442 0.02565 0.02688 0.02813 0.02938 0.03065 0.03192 0.03321
  13          PC  0.0345 0.03581 0.03712 0.03845 0.03978 0.04113 0.04248 0.04385 0.04522 0.04661
  14          PC  0.0480 0.04941 0.05084 0.05229 0.05376 0.05525 0.05676 0.05829 0.05984 0.06141
  15          PC  0.0630 0.06461 0.06624 0.06789 0.06956 0.07125 0.07296 0.07469 0.07644 0.07821
  16          PC  0.0800 0.08181 0.08364 0.08549 0.08736 0.08925 0.09116 0.09309 0.09504 0.09701
  17          PC  0.0990 0.10101 0.10304 0.10509 0.10716 0.10925 0.11136 0.11349 0.11564 0.11781
  18          PC  0.1200 0.12225 0.12460 0.12705 0.12960 0.13225 0.13500 0.13785 0.14080 0.14385
  19          PC  0.1470 0.15020 0.15340 0.15660 0.15980 0.16300 0.16628 0.16972 0.17332 0.17708
  20          PC  0.1810 0.18512 0.18948 0.19408 0.19892 0.20400 0.20940 0.21520 0.22140 0.22800
  21          PC  0.2350 0.24268 0.25132 0.26092 0.27148 0.28300 0.30684 0.35436 0.43079 0.56786
  22          PC  0.6630 0.68196 0.69864 0.71304 0.72516 0.73500 0.74344 0.75136 0.75876 0.76564
  23          PC  0.7720 0.77796 0.78364 0.78904 0.79416 0.79900 0.80360 0.80800 0.81220 0.81620
  24          PC  0.8200 0.82367 0.82726 0.83079 0.83424 0.83763 0.84094 0.84419 0.84736 0.85047
  25          PC  0.8535 0.85647 0.85936 0.86219 0.86494 0.86763 0.87024 0.87279 0.87526 0.87767
  26          PC  0.8800 0.88229 0.88455 0.88679 0.88900 0.89119 0.89335 0.89549 0.89760 0.89969
  27          PC  0.9018 0.90379 0.90580 0.90779 0.90975 0.91169 0.91360 0.91549 0.91735 0.91919
  28          PC  0.9210 0.92279 0.92455 0.92629 0.92800 0.92969 0.93135 0.93299 0.93460 0.93619
  29          PC  0.9377 0.93929 0.94080 0.94229 0.94375 0.94519 0.94660 0.94799 0.94935 0.95069
  30          PC  0.9520 0.95330 0.95459 0.95588 0.95716 0.95844 0.95971 0.96098 0.96224 0.96350
  31          PC  0.9647 0.96600 0.96724 0.96848 0.96971 0.97094 0.97216 0.97338 0.97459 0.97580
  32          PC  0.9770 0.97820 0.97939 0.98058 0.98176 0.98294 0.98411 0.98528 0.98644 0.98760
  33          PC  0.9887 0.98990 0.99104 0.99218 0.99331 0.99444 0.99556 0.99668 0.99779 0.99890
  34          PC  1.0000 1.00000 1.00000 1.00000 1.00000
  35          LS            79
  36          UD    0.34

  37          KK  PONDA
  38          KM  Ponda
  39          KO                                    22
  40          RS       1    ELEV     118
  41          SV    1.18    1.34    2.00
  42          SE     118     120     122
  43          SQ       0     6.9    19.5    27.8    32.1    52.8    87.3     131     181
  44          SE     118   118.5     119   119.5     120   120.5     121   121.5     122

  45          KK  R6C
  46          KM  R6C
  47          KO                                    22
  48          RS       1    STOR       0
  49          SV       0      10      20      30      40      50
  50          SQ       0      40      90     130     170     210
```

HEC-1 INPUT PAGE 2

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

  51          KK  S2AD
  52          KM  S2AD
  53          KO                                    22
  54          BA    0.17
  55          LS              82
  56          UD    0.18

  57          KK  202
  58          KM  ROUTE FLOW FROM REACH R16C THROUGH STRUCTURE 202
  59          KO                                    22
  60          RS       1    ELEV 1319.30
  61          SA       0    .001    .002   .1240   .2916   .5918  1.1389
  62          SE  1319.3    1320    1322    1324    1326    1328    1330
  63          SQ       0     129     177     266     341     408     470     537     687     858
  64          SE  1319.3 1324.68 1325.46 1325.91 1326.12 1326.23 1326.36 1326.43 1326.59 1326.80

  65          KK  66TH
  66          KM  ROUTE FLOW FROM REACH R16C THROUGH STRUCTURE 66TH
  67          KO                                    22
  68          RS       1    ELEV    1308
  69          SA       0    .053   .1421   .3198   .5513   .9141  1.3959
  70          SE    1308    1310    1312    1314    1316    1318    1320
  71          SQ       0      92     128     222     279     323     376     465     605     756
  72          SE    1308 1312.17 1313.02    1315 1317.05 1318.08 1318.33 1318.56 1318.93 1319.21

  73          KK  R16C
```

```
  74          KM  R16C
  75          KO                                    22
  76          RS       1    STOR       0
  77          RC    .035     .06    .035    1328 .010676    1346
  78          RX   325.9   368.3   377.5     384   384.1   403.4   439.4   488.1
  79          RY  1344.3  1342.5  1341.8  1341.2  1341.2  1341.6    1344    1346

  80          KK  S2AC
  81          KM  S2AC
  82          KO                                    22
  83          BA    0.15
  84          LS              76
  85          UD    0.21

  86          KK  Node84
  87          KM
  88          KO                                    22
  89          HC       2

  90          KK  R16B
  91          KM  R16B
  92          KO                                    22
  93          RS       1    STOR       0
  94          RC    .035     .06    .035     570 .006024    1292
  95          RX     347   434.8   468.1   544.9  544.91   551.6   618.7   672.2
  96          RY  1291.5    1290  1287.9  1287.8  1287.8    1288    1290    1292
```



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

  97          KK  S2AF
  98          KM  S2AF
  99          KO                                    22
 100          BA    0.22
 101          LS              79
 102          UD    0.36

 103          KK  Ps2af
 104          KM  ROUTE FLOW FROM R26A THROUGH STRUCUTRE 201
 105          KO                                    22
 106          RS       1    ELEV    1320
 107          SA     0.9     6.9    17.0
 108          SE    1320    1330    1340
 109          SQ       0      14      40      43      45     119     195     545
 110          SE    1320  1320.5  1321.1  1325.5  1330.0  1330.5  1331.0  1331.9

 111          KK  S2AE
 112          KM  S2AE
 113          KO                                    22
 114          BA    0.17
 115          LS              78
 116          UD    0.32

 117          KK  Node19
 118          KM
 119          KO                                    22
 120          HC       2

 121          KK  R26A
 122          KM  R26A
 123          KO                                    22
 124          RS       1    STOR       0
 125          RC    .035     .06    .035     230 .008776  1303.5
 126          RX     219     247   251.1   256.9   260.2   268.3   297.7   376.1
 127          RY  1303.5    1300    1298  1293.8  1293.8    1298  1300.2  1301.2

 128          KK  201
 129          KM  ROUTE FLOW FROM R26A THROUGH STRUCUTRE 201
 130          KO                                    22
 131          RS       1    ELEV  1286.7
 132          SA       0    .001    .009     .01   .0185   .3025  1.0626
 133          SE  1286.7    1287    1288    1290    1292    1294    1296
 134          SQ       0     167     241     383     504     613     716     826    1074    1342
 135          SE  1286.7 1291.69 1293.42 1294.39 1294.63  1294.8 1294.93 1295.08 1295.37 1295.59

 136          KK  R16A
 137          KM  R16A
 138          KO                                    22
 139          HC       2
```



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

 140          KK  R16A
 141          KM  R16A
 142          KO                                    22
 143          RS       1    STOR       0
 144          RC      .1     .06      .1    1055 .013944    1290
 145          RX   255.8   302.4   393.4   470.5   479.6     545   597.3   685.5
 146          RY    1290  1284.1    1284  1283.5  1283.5    1284  1285.6  1287.5

 147          KK  S2AB
 148          KM  S2AB
 149          KO                                    22
 150          BA    0.20
 151          LS              79
 152          UD    0.32

 153          KK  Node75
 154          KM
 155          KO                                    22
 156          HC       2

 157          KK  R15
 158          KM  R15
 159          KO                                    22
 160          RS       1    STOR       0
 161          SV       0     4.5     6.2     9.4    12.4    15.0    17.7    25.6    31.1
 162          SQ       0     354     523     840    1130    1379    1639    1924    2579

 163          KK  S2AA
 164          KM  S2AA
 165          KO                                    22
 166          BA    0.20
 167          LS              76
 168          UD    0.38

 169          KK  56THB
 170          KM  56THB
 171          KO                                    22
 172          HC       2

 173          KK  R14C
 174          KM  R14C
 175          KO                                    22
 176          RS       1    STOR       0
 177          SV       0     2.7     3.7     6.9     9.5    11.1    12.4    13.8    18.5
 178          SQ       0     356     545     893    1200    1473    1691    1876    2705

 179          KK  S2Z
 180          KM  S2Z
 181          KO                                    22
 182          BA    0.11
 183          LS              82
 184          UD    0.26
```



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

 185          KK  91
 186          KM  91 CBC
 187          KO                                    22
 188          RS       1    ELEV 1273.19
 189          SA       0    0.01    .081    .169    .315   1.350
 190          SE  1273.1    1274    1276    1278    1280    1282
 191          SQ       0      15      30      45      50      75      90     105     120     135
 192          SQ     150
 193          SE  1273.1 1274.54 1274.78 1275.17 1275.32 1275.97 1276.49 1276.87 1277.23 1277.61
 194          SE  1277.9

 195          KK  Node64
 196          KM
 197          KO                                    22
 198          HC       2

 199          KK  R14B
 200          KM  R14B
 201          KO                                    22
 202          RS       1    STOR       0
 203          SV       0    0.69    1.00    1.52    1.95    2.30    2.56    2.83    3.57
 204          SQ       0     364     562     898    1218    1525    1764    1982    2804

 205          KK  S2Y
 206          KM  S2Y
 207          KO                                    22
 208          BA    0.27
 209          LS              82
 210          UD    0.40

 211          KK  90
 212          KM  90 CBC
 213          KO                                    22
```

```
 214          RS       1    ELEV 1281.72
 215          SA       0     0.1    0.11    .130    .402    .843   1.724
 216          SE  1281.7    1282    1284    1286    1288    1290    1292
 217          SQ       0     0.1      40      50     120     160     200     240     280     320
 218          SQ     360     400
 219          SE  1281.7 1281.85 1283.81 1284.08 1285.52 1286.20 1286.82 1287.39 1287.92 1288.42
 220          SE  1289.0 1289.68

 221          KK  R25
 222          KM  R25
 223          KO                                  22
 224          RS       1    STOR       0
 225          RC     .04     .06     .04    1313 .010428      20
 226          RX       0     150     160     200     211     291     541     676
 227          RY      20       5       4       0       0       4     6.5      20
```



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

 228          KK  CLV310
 229          KM  ROUTE FLOW FROM R25 THROUGH STRUCTURE CULV31
 230          KO                                  22
 231          RS       1    ELEV 1259.33
 232          SA       0    0.05   0.321   1.007   2.226
 233          SE  1259.3    1260    1262    1264    1266
 234          SQ       0     115     164     255     328     391     439     488     609     761
 235          SE  1259.3 1262.82 1263.61 1264.93 1265.96 1266.14 1266.21 1266.34 1266.47 1266.62

 236          KK  S2X
 237          KM  S2X
 238          KO                                  22
 239          BA    0.09
 240          LS              81
 241          UD     .38

 242          KK  Node62
 243          KM
 244          KO                                  22
 245          HC       3

 246          KK  R14A
 247          KM  R14A
 248          KO                                  22
 249          RS       1    STOR       0
 250          SV       0     4.4     5.9     7.9     9.6    10.9    11.9    12.9    14.7    16.3
 251          SQ       0     484     735    1164    1559    1927    2277    2668    3545    4431

 252          KK  S2W
 253          KM  S2W
 254          KO                                  22
 255          BA    0.16
 256          LS              80
 257          UD     .40

 258          KK  Node57
 259          KM
 260          KO                                  22
 261          HC       2

 262          KK  R13
 263          KM  R13
 264          KO                                  22
 265          RS       1    STOR       0
 266          RC    .035    .045    .035    1590    .006     132
 267          RX       0      60      90     126     141     177     207     267
 268          RY     132     113     112     100     100     112     113     132

 269          KK  S2V
 270          KM  S2V
 271          KO                                  22
 272          BA    0.21
 273          LS              80
 274          UD    0.14
```



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

 275          KK  Node54
 276          KM
 277          KO                                  22
 278          HC       2

 279          KK  R12
 280          KM  R12
 281          KO                                  22

 282          RS       1    STOR       0
 283          RC    .035    .045    .035    2000   .0073     132
 284          RX       0      60      90     126     141     177     207     267
 285          RY     132     113     112     100     100     112     113     132

 286          KK  S2S
 287          KM  S2S
 288          KO                                  22
 289          BA    0.22
 290          LS              76
 291          UD    0.20

 292          KK  R24B
 293          KM
 294          KO                                  22
 295          RS       1    STOR       0
 296          RC      .1    .035      .1     750 .014494    1282
 297          RX   420.1   449.7   490.2   495.6   495.7   501.6   526.7   565.3
 298          RY    1282  1280.4  1277.1  1276.6  1276.6  1277.1  1278.8    1282

 299          KK  S2R
 300          KM  S2R
 301          KO                                  22
 302          BA    0.21
 303          LS              77
 304          UD    0.23

 305          KK  REBEL
 306          KM  REBEL
 307          KO                                  22
 308          HC       2

 309          KK  56THA
 310          KM  ROUTE COMBINED FLOW 56THA THROUGH STRUCUTRE REBEL DRIVE
 311          KO                                  22
 312          RS       1    ELEV  1285.5
 313          SA       0   0.041   0.411   0.918   1.662   2.594
 314          SE  1285.5    1286    1288    1290    1292    1294
 315          SQ       0      75     122     218     304     383     459     543     733     916
 316          SQ     994    1346    1682
 317          SE  1285.5 1288.51 1289.51 1292.03 1292.35 1292.54 1292.68 1292.82 1293.14 1293.36
 318          SE  1293.4 1293.85 1294.20
```



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

 319          KK  93
 320          KM  ROUTE COMBINED FLOW FROM R24A THROUGH STRUCTURE 93
 321          KO                                  22
 322          RS       1    ELEV  1269.8
 323          SA       0    .007    .065    .160   .3134    .700   1.709   3.034   4.516  6.0979
 324          SE  1269.8    1270    1272    1274    1276    1278    1280    1282    1284    1286
 325          SQ       0     138     219     382     526     663     796     944    1282    1602
 326          SE  1269.8 1273.14 1274.37 1276.45 1278.04 1279.42 1280.67 1282.56 1284.78 1285.11

 327          KK  S53RD
 328          KM  ROUTE FLOW FROM R23B THROUGH STRUCTURE S53RD
 329          KO                                  22
 330          RS       1    ELEV    1262
 331          SA       0   0.033   0.354   1.415   2.476  4.3196  6.3545
 332          SE    1262    1264    1266    1268    1270    1272    1274
 333          SQ       0     138     219     382     526     663     796     944    1282    1602
 334          SE    1262 1265.33 1266.59 1268.67 1270.27 1271.65 1272.38 1272.74 1273.36 1273.76

 335          KK  R23A
 336          KM  ROUTE FLOW FROM S53RD THROUGH R23A
 337          KO                                  22
 338          RS       1    STOR       0
 339          RC      .1     .06      .1 250.326 .010531    1273
 340          RX     460   543.2   566.2   571.8   582.8   593.3   638.4     964
 341          RY    1273    1270    1270  1265.2  1265.2    1270    1272  1272.4

 342          KK  S2Q
 343          KM  S2Q
 344          KO                                  22
 345          BA    0.14
 346          LS              79
 347          UD    0.26

 348          KK  Node95
 349          KM
 350          KO                                  22
 351          HC       2

 352          KK  R22
 353          KM  R22
 354          KO                                  22
```

```
 355          RS       1    STOR       0
 356          SV       0     4.1     4.5     5.2     5.8     6.3     6.7     7.1     7.8
 357          SQ       0     166     235     374     518     630     721     805     971

 358          KK  S2P
 359          KM  S2P
 360          KO                                   22
 361          BA    0.19
 362          LS              74
 363          UD    0.36
```

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                                        HEC-1 INPUT                                          PAGE  9

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


 364          KK  Node92
 365          KM
 366          KO                                   22
 367          HC       2

 368          KK  R21
 369          KM  R21
 370          KO                                   22
 371          RS       1    STOR       0
 372          SV       0    13.2    17.4    23.7    29.2    36.6    40.5    44.8    52.6    61.0
 373          SQ       0     165     266     486     685     858     996    1136    1430    1786

 374          KK  S2U
 375          KM  S2U
 376          KO                                   22
 377          BA    0.12
 378          LS              85
 379          UD     .22

 380          KK  S2O
 381          KM  S2O
 382          KO                                   22
 383          BA    0.27
 384          LS              84
 385          UD     .25

 386          KK  40THB
 387          KM  40THB
 388          KO                                   22
 389          HC       4

 390          KK  R11
 391          KM  R11
 392          KO                                   22
 393          RS       1    STOR       0
 394          RC    .035    .045    .035     600   .0067     132
 395          RX       0      60      90     126     141     177     207     267
 396          RY     132     113     112     100     100     112     113     132

 397          KK  S2T
 398          KM  S2T
 399          KO                                   22
 400          BA    0.36
 401          LS              88
 402          UD     .21

 403          KK  R20
 404          KM  R20
 405          KO                                   22
 406          RS       1    STOR       0
 407          SV       0     1.7     2.8     4.3     5.1     6.3     7.0     7.7     9.1    10.4
 408          SQ       0     222     296     431     543     570     662     762     986    1232
```

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                                        HEC-1 INPUT                                          PAGE 10

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


 409          KK  Node44
 410          KM
 411          KO                                   22
 412          HC       2

 413          KK  R10
 414          KM  R10
 415          KO                                   22
 416          RS       1    STOR       0
 417          RC    .035    .045    .035    2600   .0067     132
 418          RX       0      60      90     126     141     177     207     267
 419          RY     132     113     112     100     100     112     113     132

 420          KK  S2M2
 421          KM  S2M2
 422          KO                                   22
 423          BA    0.23
 424          LS              75
 425          UD    0.39

 426          KK  S2MDAM
 427          KM  48THST
 428          KO                                   22
 429          RS       1    ELEV      -1
 430          SA     5.9     7.4     8.8    10.3
 431          SE       0       2       4       6
 432          SQ      20      40      80     500
 433          SE       0       2       4       6

 434          KK  R19B
 435          KM  R19B
 436          KO                                   22
 437          RS       1    STOR       0
 438          RC    .025     .06    .025    1227  .01334    1260
 439          RX     458     500   576.9   587.8     603   623.3   663.5   731.7
 440          RY    1260    1258  1254.5    1254    1254  1255.5    1258    1260

 441          KK  S2M1
 442          KM  S2M1
 443          KO                                   22
 444          BA    0.16
 445          LS              76
 446          UD    0.25

 447          KK  S2N
 448          KM  S2N
 449          KO                                   22
 450          BA    0.16
 451          LS              76
 452          UD    0.42
```

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                                        HEC-1 INPUT                                          PAGE 11

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


 453          KK  YANKB
 454          KM  YANKB
 455          KO                                   22
 456          HC       3

 457          KK  191
 458          KM  ROUTE COMBINED FLOW FROM YANKB THROUGH STRUCUTRE 191
 459          KO                                   22
 460          RS       1    ELEV  1247.1
 461          SA       0   0.001    .201    .590   1.192   2.561   4.451   7.822  11.721
 462          SE  1247.1    1248    1250    1252    1254    1256    1258    1260    1262
 463          SQ       0     113     167     275     371     460     545     638     850    1062
 464          SE  1247.1 1249.87 1250.71 1252.16 1253.28 1254.23 1255.08 1256.23 1259.28 1260.19

 465          KK  R19A
 466          KM  R19A
 467          KO                                   22
 468          RS       1    STOR       0
 469          RC     .04     .06     .04    1425 .007411    1248
 470          RX     873   924.8  1064.6 1072.73  1081.9  1100.4    1138    1148
 471          RY    1246  1245.2    1244 1241.31  1241.3    1246    1248    1249

 472          KK  S2L
 473          KM  S2L
 474          KO                                   22
 475          BA    0.17
 476          LS              90
 477          UD    0.11

 478          KK  40THA
 479          KM  40THA
 480          KO                                   22
 481          HC       2

 482          KK  83
 483          KM  ROUTE COMBINED FLOW FROM 40THA THROUGH STRUCTURE 83
 484          KO                                   22
 485          RS       1    ELEV  1234.2
 486          SA       0   .0084    .147    .603   2.475   5.394
 487          SE  1234.2    1236    1238    1240    1242    1244
 488          SQ       0     200     286     442     574     696     818     950    1272    1590
 489          SE  1234.2 1237.82 1238.78 1240.31 1241.72 1242.22 1242.33 1242.50 1242.71 1242.96

 490          KK  R18B
 491          KM  R18B
 492          KO                                   22
 493          RS       1    STOR       0
 494          RC     .04     .06     .04    1413 .007960    1242
```

```
 495          RX   355.2   479.7   507.9   521.4   541.6   564.7   588.1   663.2
 496          RY    1242  1239.5  1237.9  1233.9  1233.9    1238    1238    1240

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

 497          KK  S2K
 498          KM  S2K
 499          KO                                  22
 500          BA    0.31
 501          LS              88
 502          UD     .21

 503          KK  Node31
 504          KM
 505          KO                                  22
 506          HC       2

 507          KK  R18A
 508          KM  R18A
 509          KO                                  22
 510          RS       1    STOR       0
 511          RC     .04     .06     .04    1312 .006748    1230
 512          RX   496.4   587.6  607.55  621.69  627.64  660.75   806.4  1094.6
 513          RY    1230    1228    1226    1222    1222    1226    1227    1228

 514          KK  S2J
 515          KM  S2J
 516          KO                                  22
 517          BA    0.23
 518          LS              91
 519          UD     .32

 520          KK  Node28
 521          KM
 522          KO                                  22
 523          HC       2

 524          KK  DAMR17
 525          KM  DAMR17
 526          KO                                  22
 527          RS       1    ELEV    1214
 528          SA    0.15    0.53    1.10    4.21    10.8    21.0    30.8    43.4    57.6    72.4
 529          SA    77.1    103.    115.    128.
 530          SE    1214    1216    1218    1220    1222    1224    1226    1228    1230    1232
 531          SE    1234    1336    1238    1240
 532          SQ       0     7.2      20      37      57      60      63      66      69      72
 533          SQ      74      77      79     153     235     666    1565    4172    9041
 534          SE    1222  1222.3  1222.6  1222.9  1223.2  1224.0  1224.8  1225.6  1226.4  1227.3
 535          SE  1228.1  1228.9  1229.7  1230.2  1230.8  1231.7  1232.8  1234.9  1237.4

 536          KK  Node25
 537          KM
 538          KO                                  22
 539          HC       2

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

 540          KK  R9
 541          KM  R9
 542          KO                                  22
 543          RS       1    STOR       0
 544          RC    .035    .045    .035    1200    .005     132
 545          RX       0      60      90     126     141     177     207     267
 546          RY     132     113     112     100     100     112     113     132

 547          KK  S2H
 548          KM  S2H
 549          KO                                  22
 550          BA    0.20
 551          LS              88
 552          UD     .11

 553          KK  S2I1
 554          KM  S2I1
 555          KO                                  22
 556          BA    0.11
 557          LS              88
 558          UD     .12

 559          KK  S2I2
 560          KM  S2I2
 561          KO                                  22
 562          BA    0.22
 563          LS              85
 564          UD     .34

 565          KK  Node21
 566          KM
 567          KO                                  22
 568          HC       4

 569          KK  R8
 570          KM  R8
 571          KO                                  22
 572          RS       1    STOR       0
 573          RC    .035    .045    .035    1000   .0007     132
 574          RX       0      60      90     126     141     177     207     267
 575          RY     132     113     112     100     100     112     113     132

 576          KK  S2G
 577          KM  S2G
 578          KO                                  22
 579          BA    0.09
 580          LS              89
 581          UD     .15

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

 582          KK  ROKEBY
 583          KM  ROKEBY
 584          KO                                  22
 585          HC       2

 586          KK  R7C
 587          KM  R7C
 588          KO                                  22
 589          RS       1    STOR       0
 590          RC    .035    .045    .035     500   .0033     132
 591          RX       0      60      90     126     141     177     207     267
 592          RY     132     113     112     100     100     112     113     132

 593          KK  S2F2
 594          KM  S2F2
 595          KO                                  22
 596          BA    0.18
 597          LS              88
 598          UD     .14

 599          KK  Node15
 600          KM
 601          KO                                  22
 602          HC       2

 603          KK  R7B
 604          KM  R7B
 605          KO                                  22
 606          RS       1    STOR       0
 607          RC    .035    .045    .035     600   .0033     132
 608          RX       0      60      90     126     141     177     207     267
 609          RY     132     113     112     100     100     112     113     132

 610          KK  S2E
 611          KM  S2E
 612          KO                                  22
 613          BA    0.25
 614          LS              89
 615          UD     .19

 616          KK  S2EDAM
 617          KM
 618          KO                                  22
 619          RS            ELEV    1218
 620          SA     2.5    3.031   4.628   6.964   9.303  11.733
 621          SE    1218    1220    1222    1224    1226    1228
 622          SQ       0     6.6    18.6    22.8    23.3    23.8    24.3    24.7    25.2      44
 623          SQ      78     174    1078    2650    7000
 624          SE    1218  1218.5    1219  1219.5    1220  1220.5    1221  1221.5    1222  1222.5
 625          SE    1223    1224    1225    1226    1228

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

 626          KK  S2F1
 627          KM
 628          KO                                  22
 629          BA    .146
 630          LS              85
```

```
631          UD     .12
632          KK  Node11
633          KM
634          KO                                  22
635          HC       3

636          KK  R7A
637          KM  R7A
638          KO                                  22
639          RS       1    STOR       0
640          RC    .035    .045    .035    1650   .0033     132
641          RX       0      60      90     126     141     177     207     267
642          RY     132     113     112     100     100     112     113     132

643          KK  27THB
644          KM  27THB
645          KO                                  22
646          HC       2

647          KK  R6B
648          KM  R6B
649          KO                                  22
650          RS       1    STOR       0
651          RC    .035    .045    .035     950   .0005     132
652          RX       0      60      90     126     141     177     207     267
653          RY     132     113     112     100     100     112     113     132

654          KK  S5A
655          KM  S5A
656          KO                                  22
657          BA    0.22
658          LS              84
659          UD     .29

660          KK  PondS5
661          KM  PondS5A
662          KO                                  22
663          RS       1    ELEV    1263
664          SV       0     1.1      4.4     9.4     16.1
665          SE    1263    1264    1266    1268    1270
666          SQ       0     6.6    18.6    22.8    23.3    23.8    24.3    24.7    25.2      44
667          SQ      78     174    1078
668          SE    1263  1263.5    1264  1264.5    1265  1265.5    1266  1266.5    1267  1267.5
669          SE    1268    1269    1270
```

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

670          KK  R33
671          KM  R33
672          KO                                  22
673          RS       1    ELEV    1195
674          RC    0.04    0.06    0.04    2100    .004    1250
675          RX       0     0.1      30      45      50      65    94.9      95
676          RY    1250    1201    1200    1195    1195    1200    1201    1250

677          KK  S5B
678          KM  S5B
679          KO                                  22
680          BA    0.37
681          LS              83
682          UD     .28

683          KK  S5up
684          KM
685          KO                                  22
686          HC       2

687          KK  PS5B
688          KM  PondS5A
689          KO                                  22
690          RS       1    ELEV    1232
691          SA    4.86    11.9   15.05    22.4
692          SE    1232    1240    1243    1250
693          SQ       0      94     101     297     616
694          SE    1232    1240    1243  1243.7  1244.3

695          KK  R32
696          KM  R32
697          KO                                  22
698          RS       1    ELEV    1195
699          RC    0.04    0.06    0.04    2200    .004    1250
700          RX       0     0.1      30      45      50      65    94.9      95
701          RY    1250    1201    1200    1195    1195    1200    1201    1250

702          KK  S5C
703          KM  S5C
704          KO                                  22
705          BA    0.23
706          LS              86
707          UD    0.20

708          KK  S38th
709          KM
710          KO                                  22
711          HC       2
```

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

712          KK  R31
713          KM  R31
714          KO                                  22
715          RS       1    ELEV    1195
716          RC    0.04    0.06    0.04    2900    .003    1220
717          RX       0     0.1      30      45      50      65    94.9      95
718          RY    1250    1201    1200    1195    1195    1200    1201    1250

719          KK  S5E
720          KM  S5E
721          KO                                  22
722          BA    0.18
723          LS              86
724          UD    0.16

725          KK  S38thS
726          KM  South 38th Street Culvert
727          KO                                  22
728          RS       1    ELEV    1213
729          SA       0       1     5.8    12.6
730          SE    1213    1220    1230    1240
731          SQ       0     100     200     300     400     450     500
732          SE    1213  1216.8  1218.7  1220.7  1223.2  1225.0  1225.1

733          KK  R34
734          KM  R34
735          KO                                  22
736          RS       1    ELEV    1195
737          RC    0.04    0.35    0.04    2500   .0001    1220
738          RX       0      .1      30      45      50      65    94.9      95
739          RY    1250    1201    1200    1195    1195    1200    1201    1250

740          KK  S5F
741          KM  S5F
742          KO                                  22
743          BA    0.28
744          LS              83
745          UD     .13

746          KK  S5G
747          KM  S5G
748          KO                                  22
749          BA    0.15
750          LS              84
751          UD    0.10

752          KK  RRjctn
753          KM
754          KO                                  22
755          HC       4
```

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

756          KK  S5D
757          KM  S5D
758          KO                                  22
759          BA    0.34
760          LS              86
761          UD    0.12

762          KK  Saltil
763          KM
764          KO                                  22
765          HC       2

766          KK  S2B1
767          KM  S2B1
768          KO                                  22
769          BA     .14
770          LS              79
```

```
 771          UD     .15

 772          KK  BNSFB
 773          KM
 774          KO                                  22
 775          HC       3

 776          KK  R6A
 777          KM  R6A
 778          KO                                  22
 779          RS       1    STOR       0
 780          SV       0     1.4      3.6      9.5     16.8     27.8     34.2     42.8     53.6     59.2
 781          SQ       0    1166     1746     2864     3960     4356     5363     6452     8849    11187

 782          KK  S1G
 783          KM  S1G
 784          KO                                  22
 785          BA    0.19
 786          LS              92
 787          UD    0.20

 788          KK  S1F
 789          KM  S1F
 790          KO                                  22
 791          BA    0.14
 792          LS              94
 793          UD    0.47

 794          KK  Node12
 795          KM
 796          KO                                  22
 797          HC       2
```

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

 798          KK  R5
 799          KM  R5
 800          KO                                  22
 801          RS       1    STOR       0
 802          SV       0     2.0      2.6      3.6      4.3      5.0      5.6      6.1      7.3      8.7
 803          SQ       0     132      190      302      398      486      567      656      856     1070

 804          KK  S1E
 805          KM  S1E
 806          KO                                  22
 807          BA    0.17
 808          LS              89
 809          UD    0.27

 810          KK  27THA
 811          KM  27THA
 812          KO                                  22
 813          RS       1    STOR       -1
 814          SV       0    .214    1.485    4.275    8.336   14.029    17.66
 815          SQ       0   0.001    0.002     24.2     73.7    138.6    147.0

 816          KK  R3
 817          KM  R3
 818          KO                                  22
 819          RS       1    STOR       0
 820          SV       0     1.4      2.1      3.2      4.1      4.7      5.4      5.7      6.4      7.6
 821          SQ       0      22       39       72       99      122      140      145      159      198

 822          KK  S1D
 823          KM  S1D
 824          KO                                  22
 825          BA    0.20
 826          LS              93
 827          UD    0.23

 828          KK  Node11
 829          KM
 830          KO                                  22
 831          HC       3

 832          KK  D37
 833          KM
 834          KO                                  22
 835          RS       1    ELEV     1202
 836          SA     0.0     1.3      1.7      2.2      3.6      4.8
 837          SE    1202    1204     1206     1208     1210     1212
 838          SQ       0     175      480      850     1030     1500
 839          SE    1202    1204     1206     1208     1210     1212
```

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

 840          KK  R2
 841          KM  R2
 842          KO                                  22
 843          RS       1    STOR       0
 844          SV       0     1.9      2.5      3.6      4.5      5.3      6.0      6.8      9.2     11.6
 845          SQ       0     154      230      385      528      661      788      886     1116     1395

 846          KK  S1C
 847          KM  S1C
 848          KO                                  22
 849          BA    0.19
 850          LS              85
 851          UD    0.38

 852          KK  PONDN
 853          KM  PONDN
 854          KO                                  22
 855          RS       1    ELEV       -1
 856          SV       0     2.2      3.5      4.8
 857          SQ       0      16      135      350
 858          SE     110     111    111.5      112

 859          KK  S1B
 860          KM  S1B
 861          KO                                  22
 862          BA    0.11
 863          LS              73
 864          UD    0.21

 865          KK  Node14
 866          KM
 867          KO                                  22
 868          HC       2

 869          KK  R4
 870          KM
 871          KO                                  22
 872          RS       1    STOR       0
 873          SV       0     1.1      1.4      1.7      1.9      2.3      2.5      2.9      4.3      6.0
 874          SQ       0      62      114      217      315      402      479      563      747      933

 875          KK  PONDK
 876          KM  PONDK
 877          KO                                  22
 878          RS       1    ELEV       92
 879          SV       0     4.2      8.9     11.4     13.7
 880          SQ       0      70      370      570      800
 881          SE      92      93       94     94.5       95
```

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

 882          KK  Node10
 883          KM
 884          KO                                  22
 885          HC       2

 886          KK  R1B
 887          KM  R1B
 888          KO                                  22
 889          RS       1    STOR       0
 890          SV       0     1.2      1.8      3.1      4.4      5.5      6.4      7.4     10.5     14.6
 891          SQ       0     169      271      530      757      971     1166     1350     1724     2155

 892          KK  S1A3
 893          KM  S1A3
 894          KO                                  22
 895          BA    0.17
 896          LS              77
 897          UD    0.35

 898          KK  Node9
 899          KM
 900          KO                                  22
 901          HC       2

 902          KK  Node9A
 903          KM
 904          KO                                  22
 905          DT  BNDitc
 906          DI       0      358      501      828     1130     1355     1524     1689     2145     2681
 907          DQ       0      126      199      379      554      690      794      897     1201     1487
```

```
 908          KK  R1A
 909          KM  R1A
 910          KO                                    22
 911          RS       1    STOR       0
 912          RC     .04     .06    .035     794  .00894  1184.2
 913          RX       0   879.6    1515  1521.7  1528.1  1555.9  1650.3  1789.4
 914          RY  1183.4    1182    1180  1173.4  1173.4    1180    1182  1184.2

 915          KK  S1A1
 916          KM  S1A1
 917          KO                                    22
 918          BA    0.29
 919          LS              68
 920          UD    0.15

 921          KK  14TH
 922          KM
 923          KO                                    22
 924          HC       2
                                      HEC-1 INPUT                                          PAGE 22

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


 925          KK  S1A4
 926          KM  S1A4
 927          KO                                    22
 928          BA    0.06
 929          LS              80
 930          UD    0.22

 931          KK  BNDitc
 932          KM
 933          KO                                    22
 934          DR  BNDitc

 935          KK  Yankee
 936          KM
 937          KO                                    22
 938          HC       2
 939          KK  S2B2
 940          KM  S2B2
 941          KO                                    22
 942          BA    0.07
 943          LS              75
 944          UD    0.31

 945          KK  det-u
 946          KM
 947          KO                                    22
 948          RS       1    ELEV   102.4
 949          SV       0     0.6     1.8     3.0
 950          SQ       0       2      38     180
 951          SE   102.4   102.9   103.4   104.4

 952          KK  S2A
 953          KM  S2A
 954          KO                                    22
 955          BA    0.24
 956          LS              67
 957          UD    0.15

 958          KK  S2C
 959          KM  S2C
 960          KO                                    22
 961          BA    0.35
 962          LS              86
 963          UD     .11

 964          KK  NULLB
 965          KM  NULLB
 966          KO                                    22
 967          HC       6
 968          ZZ
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1-year Storm
for
Built-out
Projected Conditions

1 YEAR

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	S2B3	26.	12.20	5.	2.	1.	0.07		
ROUTED TO	PONDA	26.	12.30	5.	2.	1.	0.07	119.39	12.30
ROUTED TO	R6C	5.	13.30	4.	2.	1.	0.07		
HYDROGRAPH AT	S2AD	111.	12.10	15.	4.	4.	0.17		
ROUTED TO	202	111.	12.10	15.	4.	4.	0.17	1323.93	12.10
ROUTED TO	66TH	102.	12.20	15.	5.	4.	0.17	1312.40	12.20
ROUTED TO	R16C	90.	12.30	15.	5.	4.	0.17	1342.46	12.30
HYDROGRAPH AT	S2AC	59.	12.10	9.	3.	2.	0.15		
2 COMBINED AT	Node84	142.	12.20	23.	7.	6.	0.32		
ROUTED TO	R16B	134.	12.30	23.	7.	6.	0.32	1288.67	12.30
HYDROGRAPH AT	S2AF	80.	12.30	16.	5.	4.	0.22		
ROUTED TO	Ps2af	40.	12.70	16.	5.	4.	0.22	1321.45	12.70
HYDROGRAPH AT	S2AE	62.	12.20	11.	4.	3.	0.17		
2 COMBINED AT	Node19	100.	12.30	27.	8.	7.	0.39		
ROUTED TO	R26A	100.	12.30	27.	8.	7.	0.39	1297.10	12.30
ROUTED TO	201	100.	12.30	27.	8.	7.	0.39	1289.69	12.30
2 COMBINED AT	R16A	235.	12.30	50.	16.	13.	0.71		
ROUTED TO	R16A	209.	12.40	50.	16.	13.	0.71	1284.31	12.40
HYDROGRAPH AT	S2AB	79.	12.20	14.	4.	4.	0.20		
2 COMBINED AT	Node75	272.	12.40	64.	20.	16.	0.91		
ROUTED TO	R15	239.	12.50	64.	20.	16.	0.91		
HYDROGRAPH AT	S2AA	56.	12.30	12.	4.	3.	0.20		
2 COMBINED AT	56THB	284.	12.50	76.	24.	19.	1.11		
ROUTED TO	R14C	274.	12.60	76.	24.	19.	1.11		
HYDROGRAPH AT	S2Z	59.	12.20	9.	3.	2.	0.11		
ROUTED TO	91	60.	12.20	9.	3.	2.	0.11	1275.58	12.20
2 COMBINED AT	Node64	295.	12.60	85.	27.	21.	1.22		
ROUTED TO	R14B	295.	12.60	85.	27.	21.	1.22		
HYDROGRAPH AT	S2Y	116.	12.30	23.	7.	6.	0.27		
ROUTED TO	90	115.	12.30	23.	7.	6.	0.27	1285.41	12.30
ROUTED TO	R25	105.	12.50	23.	7.	6.	0.27	1.31	12.50
ROUTED TO	CLV310	99.	12.60	23.	7.	6.	0.27	1262.32	12.60
HYDROGRAPH AT	S2X	37.	12.30	7.	2.	2.	0.09		
3 COMBINED AT	Node62	417.	12.60	115.	36.	29.	1.58		
ROUTED TO	R14A	403.	12.70	115.	36.	29.	1.58		
HYDROGRAPH AT	S2W	60.	12.30	12.	4.	3.	0.16		
2 COMBINED AT	Node57	436.	12.60	127.	40.	32.	1.74		
ROUTED TO	R13	434.	12.70	127.	40.	32.	1.74	103.55	12.70
HYDROGRAPH AT	S2V	127.	12.00	16.	5.	4.	0.21		
2 COMBINED AT	Node54	452.	12.70	142.	45.	36.	1.95		
ROUTED TO	R12	445.	12.80	142.	45.	36.	1.95	103.45	12.80
HYDROGRAPH AT	S2S	90.	12.10	13.	4.	3.	0.22		
ROUTED TO	R24B	83.	12.20	13.	4.	3.	0.22	1277.98	12.20
HYDROGRAPH AT	S2R	85.	12.10	13.	4.	3.	0.21		
2 COMBINED AT	REBEL	164.	12.20	26.	8.	7.	0.43		
ROUTED TO	56THA	132.	12.30	26.	8.	7.	0.43	1289.76	12.30
ROUTED TO	93	132.	12.30	26.	8.	7.	0.43	1273.01	12.30
ROUTED TO	S53RD	130.	12.40	26.	8.	7.	0.43	1265.14	12.40
ROUTED TO	R23A	131.	12.40	26.	8.	7.	0.43	1267.57	12.40
HYDROGRAPH AT	S2Q	61.	12.20	10.	3.	2.	0.14		

2 COMBINED AT	Node95	175.	12.30	36.	11.	9.	0.57	
ROUTED TO	R22	136.	12.50	36.	11.	9.	0.57	
HYDROGRAPH AT	S2P	46.	12.30	10.	3.	2.	0.19	
2 COMBINED AT	Node92	171.	12.50	46.	14.	11.	0.76	
ROUTED TO	R21	91.	13.10	44.	14.	11.	0.76	
HYDROGRAPH AT	S2U	87.	12.10	12.	4.	3.	0.12	
HYDROGRAPH AT	S2O	169.	12.10	26.	8.	6.	0.27	
4 COMBINED AT	40THB	578.	12.80	222.	71.	57.	3.10	
ROUTED TO	R11	578.	12.80	222.	71.	57.	3.10	103.96 12.80
HYDROGRAPH AT	S2T	315.	12.10	43.	13.	11.	0.36	
ROUTED TO	R20	264.	12.20	43.	13.	11.	0.36	
2 COMBINED AT	Node44	715.	12.20	263.	84.	67.	3.46	
ROUTED TO	R10	676.	12.40	262.	84.	67.	3.46	104.29 12.40
HYDROGRAPH AT	S2M2	58.	12.30	13.	4.	3.	0.23	
ROUTED TO	S2MDAM	22.	12.90	21.	20.	20.	0.23	0.22 12.90
ROUTED TO	R19B	22.	13.10	21.	20.	20.	0.23	1254.53 13.10
HYDROGRAPH AT	S2M1	56.	12.20	9.	3.	2.	0.16	
HYDROGRAPH AT	S2N	42.	12.30	9.	3.	2.	0.16	
3 COMBINED AT	YANKB	113.	12.20	39.	26.	25.	0.55	
ROUTED TO	191	112.	12.20	39.	26.	25.	0.55	1249.84 12.20
ROUTED TO	R19A	104.	12.40	39.	26.	24.	0.55	1243.51 12.40
HYDROGRAPH AT	S2L	207.	12.00	22.	7.	6.	0.17	
2 COMBINED AT	40THA	249.	12.00	61.	33.	30.	0.72	
ROUTED TO	83	239.	12.00	61.	33.	30.	0.72	1238.25 12.00
ROUTED TO	R18B	217.	12.10	61.	33.	30.	0.72	1236.17 12.10
HYDROGRAPH AT	S2K	271.	12.10	37.	11.	9.	0.31	
2 COMBINED AT	Node31	489.	12.10	97.	44.	39.	1.03	
ROUTED TO	R18A	449.	12.20	97.	44.	39.	1.03	1226.12 12.20
HYDROGRAPH AT	S2J	189.	12.20	32.	10.	8.	0.23	
2 COMBINED AT	Node28	638.	12.20	129.	54.	47.	1.26	
ROUTED TO	DAMR17	61.	15.00	61.	42.	34.	1.26	1224.27 15.10
2 COMBINED AT	Node25	735.	12.40	321.	126.	101.	4.72	
ROUTED TO	R9	728.	12.40	320.	126.	101.	4.72	104.84 12.40
HYDROGRAPH AT	S2H	221.	12.00	24.	7.	6.	0.20	
HYDROGRAPH AT	S2I1	118.	12.00	13.	4.	3.	0.11	
HYDROGRAPH AT	S2I2	125.	12.20	22.	7.	6.	0.22	
4 COMBINED AT	Node21	895.	12.40	374.	144.	116.	5.25	
ROUTED TO	R8	873.	12.50	373.	144.	115.	5.25	108.45 12.50
HYDROGRAPH AT	S2G	92.	12.00	11.	3.	3.	0.09	
2 COMBINED AT	ROKEBY	891.	12.50	383.	147.	118.	5.34	
ROUTED TO	R7C	894.	12.50	383.	147.	118.	5.34	105.89 12.50
HYDROGRAPH AT	S2F2	180.	12.00	21.	7.	5.	0.18	
2 COMBINED AT	Node15	928.	12.50	403.	154.	123.	5.52	
ROUTED TO	R7B	929.	12.50	403.	154.	123.	5.52	106.00 12.50
HYDROGRAPH AT	S2E	238.	12.10	31.	10.	8.	0.25	
ROUTED TO	S2EDAM	24.	13.00	24.	10.	8.	0.25	1221.15 13.00
HYDROGRAPH AT	S2F1	133.	12.00	15.	5.	4.	0.15	
3 COMBINED AT	Node11	975.	12.50	441.	168.	135.	5.92	
ROUTED TO	R7A	961.	12.60	439.	168.	134.	5.92	106.10 12.60
2 COMBINED AT	27THB	965.	12.60	443.	169.	136.	5.99	
ROUTED TO	R6B	954.	12.60	442.	169.	135.	5.99	109.45 12.60
HYDROGRAPH AT	S5A	129.	12.20	21.	7.	5.	0.22	
ROUTED TO	PondS5	25.	13.00	21.	7.	5.	0.22	1266.27 13.00

ROUTED TO	R33	24.	13.60	20.	7.	5.	0.22	1195.80	13.60
HYDROGRAPH AT	S5B	206.	12.20	34.	10.	8.	0.37		
2 COMBINED AT	S5up	221.	12.20	54.	17.	14.	0.59		
ROUTED TO	PS5B	25.	17.00	24.	14.	11.	0.59	1234.15	17.00
ROUTED TO	R32	25.	17.20	24.	14.	11.	0.59	1195.82	17.20
HYDROGRAPH AT	S5C	185.	12.10	25.	8.	6.	0.23		
2 COMBINED AT	S38th	187.	12.10	43.	21.	17.	0.82		
ROUTED TO	R31	115.	12.30	42.	21.	17.	0.82	1198.39	12.30
HYDROGRAPH AT	S5E	150.	12.10	19.	6.	5.	0.18		
ROUTED TO	S38thS	137.	12.10	19.	6.	5.	0.18	1217.50	12.10
ROUTED TO	R34	11.	13.60	10.	5.	4.	0.18	1200.31	13.60
HYDROGRAPH AT	S5F	218.	12.00	26.	8.	6.	0.28		
HYDROGRAPH AT	S5G	136.	12.00	14.	4.	4.	0.15		
4 COMBINED AT	RRjctn	405.	12.00	90.	38.	31.	1.43		
HYDROGRAPH AT	S5D	328.	12.00	36.	11.	9.	0.34		
2 COMBINED AT	Saltil	733.	12.00	126.	49.	40.	1.77		
HYDROGRAPH AT	S2B1	77.	12.10	10.	3.	2.	0.14		
3 COMBINED AT	BNSFB	1165.	12.50	573.	221.	177.	7.90		
ROUTED TO	R6A	1164.	12.50	573.	221.	177.	7.90		
HYDROGRAPH AT	S1G	206.	12.10	27.	9.	7.	0.19		
HYDROGRAPH AT	S1F	104.	12.30	22.	7.	6.	0.14		
2 COMBINED AT	Node12	280.	12.10	49.	16.	12.	0.33		
ROUTED TO	R5	244.	12.20	49.	16.	12.	0.33		
HYDROGRAPH AT	S1E	134.	12.10	21.	7.	5.	0.17		
ROUTED TO	27THA	42.	12.60	18.	6.	5.	0.17		
ROUTED TO	R3	31.	13.40	18.	6.	5.	0.17		
HYDROGRAPH AT	S1D	214.	12.10	30.	9.	8.	0.20		
3 COMBINED AT	Node11	436.	12.20	95.	31.	25.	0.70		
ROUTED TO	D37	395.	12.30	95.	31.	25.	0.70	1205.44	12.30
ROUTED TO	R2	377.	12.40	95.	31.	25.	0.70		
HYDROGRAPH AT	S1C	101.	12.30	19.	6.	5.	0.19		
ROUTED TO	PONDN	79.	12.50	18.	6.	5.	0.19	111.26	12.50
HYDROGRAPH AT	S1B	33.	12.10	5.	2.	1.	0.11		
2 COMBINED AT	Node14	92.	12.50	23.	8.	6.	0.30		
ROUTED TO	R4	85.	12.60	23.	8.	6.	0.30		
ROUTED TO	PONDK	46.	13.10	22.	8.	6.	0.30	92.66	13.10
2 COMBINED AT	Node10	392.	12.40	116.	38.	31.	1.00		
ROUTED TO	R1B	383.	12.50	116.	38.	31.	1.00		
HYDROGRAPH AT	S1A3	54.	12.30	11.	3.	3.	0.17		
2 COMBINED AT	Node9	426.	12.40	127.	42.	33.	1.17		
DIVERSION TO	BNDitc	161.	12.40	45.	15.	12.	1.17		
HYDROGRAPH AT	Node9A	265.	12.40	82.	27.	22.	1.17		
ROUTED TO	R1A	265.	12.50	82.	27.	22.	1.17	1177.33	12.50
HYDROGRAPH AT	S1A1	58.	12.10	9.	3.	2.	0.29		
2 COMBINED AT	14TH	283.	12.50	91.	30.	24.	1.46		
HYDROGRAPH AT	S1A4	31.	12.10	5.	1.	1.	0.06		
HYDROGRAPH AT	BNDitc	161.	12.40	45.	15.	12.	0.00		
2 COMBINED AT	Yankee	175.	12.40	50.	16.	13.	0.06		
HYDROGRAPH AT	S2B2	20.	12.20	4.	1.	1.	0.07		
ROUTED TO	det-u	7.	12.80	3.	1.	1.	0.07	102.97	12.80
HYDROGRAPH AT	S2A	42.	12.10	7.	2.	2.	0.24		
HYDROGRAPH AT	S2C	347.	12.00	38.	12.	9.	0.35		
6 COMBINED AT	NULLB	1703.	12.40	758.	282.	226.	10.08		

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

2-year Storm
for
Built-out
Projected Conditions

2 YEAR

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	S2B3	40.	12.20	7.	2.	2.	0.07		
ROUTED TO	PONDA	37.	12.30	7.	2.	2.	0.07	120.12	12.30
ROUTED TO	R6C	8.	13.20	6.	2.	2.	0.07		
HYDROGRAPH AT	S2AD	157.	12.10	21.	6.	5.	0.17		
ROUTED TO	202	150.	12.10	21.	6.	5.	0.17	1325.03	12.10
ROUTED TO	66TH	142.	12.20	21.	6.	5.	0.17	1313.31	12.20
ROUTED TO	R16C	129.	12.30	20.	6.	5.	0.17	1342.65	12.30
HYDROGRAPH AT	S2AC	93.	12.10	13.	4.	3.	0.15		
2 COMBINED AT	Node84	207.	12.20	34.	10.	8.	0.32		
ROUTED TO	R16B	197.	12.30	34.	10.	8.	0.32	1288.85	12.30
HYDROGRAPH AT	S2AF	119.	12.30	23.	7.	6.	0.22		
ROUTED TO	Ps2af	41.	12.90	23.	7.	6.	0.22	1322.27	12.90
HYDROGRAPH AT	S2AE	95.	12.20	17.	5.	4.	0.17		
2 COMBINED AT	Node19	135.	12.20	39.	12.	10.	0.39		
ROUTED TO	R26A	135.	12.20	39.	12.	10.	0.39	1297.58	12.20
ROUTED TO	201	134.	12.20	39.	12.	10.	0.39	1290.70	12.20
2 COMBINED AT	R16A	330.	12.20	73.	23.	18.	0.71		
ROUTED TO	R16A	302.	12.40	73.	23.	18.	0.71	1284.45	12.40
HYDROGRAPH AT	S2AB	119.	12.20	21.	6.	5.	0.20		
2 COMBINED AT	Node75	403.	12.30	93.	29.	23.	0.91		
ROUTED TO	R15	357.	12.50	93.	29.	23.	0.91		
HYDROGRAPH AT	S2AA	88.	12.30	18.	5.	4.	0.20		
2 COMBINED AT	56THB	425.	12.50	111.	34.	28.	1.11		
ROUTED TO	R14C	419.	12.50	111.	34.	28.	1.11		
HYDROGRAPH AT	S2Z	84.	12.10	13.	4.	3.	0.11		
ROUTED TO	91	84.	12.20	13.	4.	3.	0.11	1276.29	12.20
2 COMBINED AT	Node64	458.	12.50	124.	39.	31.	1.22		
ROUTED TO	R14B	453.	12.50	124.	39.	31.	1.22		
HYDROGRAPH AT	S2Y	166.	12.30	33.	10.	8.	0.27		
ROUTED TO	90	164.	12.30	33.	10.	8.	0.27	1286.26	12.30
ROUTED TO	R25	152.	12.40	32.	10.	8.	0.27	1.56	12.40
ROUTED TO	CLV310	140.	12.60	32.	10.	8.	0.27	1263.23	12.60
HYDROGRAPH AT	S2X	54.	12.30	10.	3.	3.	0.09		
3 COMBINED AT	Node62	631.	12.50	166.	52.	42.	1.58		
ROUTED TO	R14A	619.	12.60	166.	52.	42.	1.58		
HYDROGRAPH AT	S2W	88.	12.30	17.	5.	4.	0.16		
2 COMBINED AT	Node57	676.	12.60	184.	57.	46.	1.74		
ROUTED TO	R13	660.	12.60	183.	57.	46.	1.74	104.36	12.60
HYDROGRAPH AT	S2V	188.	12.00	23.	7.	6.	0.21		
2 COMBINED AT	Node54	691.	12.60	205.	64.	51.	1.95		
ROUTED TO	R12	681.	12.70	205.	64.	51.	1.95	104.21	12.70
HYDROGRAPH AT	S2S	140.	12.10	20.	6.	5.	0.22		
ROUTED TO	R24B	129.	12.20	20.	6.	5.	0.22	1278.27	12.20
HYDROGRAPH AT	S2R	131.	12.10	20.	6.	5.	0.21		
2 COMBINED AT	REBEL	257.	12.10	39.	12.	10.	0.43		
ROUTED TO	56THA	179.	12.30	39.	12.	10.	0.43	1291.00	12.30
ROUTED TO	93	178.	12.40	39.	12.	10.	0.43	1273.74	12.40
ROUTED TO	S53RD	176.	12.40	39.	12.	10.	0.43	1265.93	12.40
ROUTED TO	R23A	175.	12.40	39.	12.	10.	0.43	1267.97	12.40
HYDROGRAPH AT	S2Q	90.	12.20	15.	4.	4.	0.14		

2 COMBINED AT	Node95	242.	12.30	54.	17.	13.	0.57	
ROUTED TO	R22	219.	12.50	53.	17.	13.	0.57	
HYDROGRAPH AT	S2P	75.	12.30	15.	5.	4.	0.19	
2 COMBINED AT	Node92	275.	12.50	68.	21.	17.	0.76	
ROUTED TO	R21	140.	13.10	66.	21.	17.	0.76	
HYDROGRAPH AT	S2U	120.	12.10	17.	5.	4.	0.12	
HYDROGRAPH AT	S2O	237.	12.10	36.	11.	9.	0.27	
4 COMBINED AT	40THB	885.	12.70	321.	101.	81.	3.10	
ROUTED TO	R11	882.	12.70	321.	101.	81.	3.10	104.97 12.70
HYDROGRAPH AT	S2T	419.	12.10	57.	18.	14.	0.36	
ROUTED TO	R20	348.	12.20	57.	18.	14.	0.36	
2 COMBINED AT	Node44	1033.	12.20	376.	119.	96.	3.46	
ROUTED TO	R10	991.	12.40	375.	119.	96.	3.46	105.25 12.40
HYDROGRAPH AT	S2M2	93.	12.30	19.	6.	5.	0.23	
ROUTED TO	S2MDAM	25.	13.10	22.	21.	20.	0.23	0.50 13.10
ROUTED TO	R19B	25.	13.30	22.	21.	20.	0.23	1254.57 13.30
HYDROGRAPH AT	S2M1	87.	12.10	14.	4.	4.	0.16	
HYDROGRAPH AT	S2N	66.	12.30	14.	4.	4.	0.16	
3 COMBINED AT	YANKB	167.	12.20	51.	29.	27.	0.55	
ROUTED TO	191	162.	12.30	51.	29.	27.	0.55	1250.63 12.30
ROUTED TO	R19A	153.	12.40	50.	29.	27.	0.55	1243.97 12.40
HYDROGRAPH AT	S2L	270.	12.00	29.	9.	7.	0.17	
2 COMBINED AT	40THA	332.	12.00	79.	38.	34.	0.72	
ROUTED TO	83	313.	12.10	79.	38.	34.	0.72	1239.04 12.10
ROUTED TO	R18B	287.	12.10	78.	38.	34.	0.72	1236.53 12.10
HYDROGRAPH AT	S2K	361.	12.10	49.	15.	12.	0.31	
2 COMBINED AT	Node31	649.	12.10	127.	54.	46.	1.03	
ROUTED TO	R18A	592.	12.20	127.	54.	46.	1.03	1226.47 12.20
HYDROGRAPH AT	S2J	245.	12.20	41.	13.	10.	0.23	
2 COMBINED AT	Node28	837.	12.20	168.	66.	57.	1.26	
ROUTED TO	DAMR17	64.	16.00	64.	47.	37.	1.26	1225.04 16.00
2 COMBINED AT	Node25	1051.	12.60	436.	166.	133.	4.72	
ROUTED TO	R9	1050.	12.70	436.	165.	133.	4.72	105.75 12.70
HYDROGRAPH AT	S2H	293.	12.00	31.	10.	8.	0.20	
HYDROGRAPH AT	S2I1	157.	12.00	17.	5.	4.	0.11	
HYDROGRAPH AT	S2I2	173.	12.20	30.	9.	8.	0.22	
4 COMBINED AT	Node21	1273.	12.30	510.	190.	152.	5.25	
ROUTED TO	R8	1251.	12.40	509.	189.	152.	5.25	109.93 12.40
HYDROGRAPH AT	S2G	121.	12.00	15.	5.	4.	0.09	
2 COMBINED AT	ROKEBY	1283.	12.40	522.	194.	156.	5.34	
ROUTED TO	R7C	1278.	12.50	522.	194.	156.	5.34	107.02 12.50
HYDROGRAPH AT	S2F2	241.	12.00	28.	9.	7.	0.18	
2 COMBINED AT	Node15	1333.	12.40	549.	203.	163.	5.52	
ROUTED TO	R7B	1329.	12.50	548.	202.	162.	5.52	107.14 12.50
HYDROGRAPH AT	S2E	313.	12.10	41.	13.	10.	0.25	
ROUTED TO	S2EDAM	27.	13.20	25.	13.	10.	0.25	1222.04 13.20
HYDROGRAPH AT	S2F1	183.	12.00	20.	6.	5.	0.15	
3 COMBINED AT	Node11	1384.	12.40	592.	221.	178.	5.92	
ROUTED TO	R7A	1380.	12.50	591.	221.	177.	5.92	107.25 12.50
2 COMBINED AT	27THB	1385.	12.50	597.	223.	179.	5.99	
ROUTED TO	R6B	1372.	12.60	596.	222.	179.	5.99	111.13 12.60
HYDROGRAPH AT	S5A	179.	12.20	29.	9.	7.	0.22	
ROUTED TO	PondS5	35.	12.90	26.	9.	7.	0.22	1267.26 12.90

ROUTED TO	R33	33.	13.20	26.	9.	7.	0.22	1196.09	13.20
HYDROGRAPH AT	S5B	290.	12.20	47.	14.	12.	0.37		
2 COMBINED AT	S5up	308.	12.20	71.	23.	19.	0.59		
ROUTED TO	PS5B	33.	18.10	32.	19.	15.	0.59	1234.82	18.10
ROUTED TO	R32	33.	18.30	32.	19.	15.	0.59	1196.08	18.30
HYDROGRAPH AT	S5C	251.	12.10	33.	10.	8.	0.23		
2 COMBINED AT	S38th	255.	12.10	59.	29.	23.	0.82		
ROUTED TO	R31	164.	12.30	57.	29.	23.	0.82	1199.03	12.30
HYDROGRAPH AT	S5E	203.	12.00	26.	8.	6.	0.18		
ROUTED TO	S38thS	181.	12.10	26.	8.	6.	0.18	1218.34	12.10
ROUTED TO	R34	22.	13.00	15.	7.	5.	0.18	1200.74	13.00
HYDROGRAPH AT	S5F	307.	12.00	35.	11.	9.	0.28		
HYDROGRAPH AT	S5G	188.	12.00	20.	6.	5.	0.15		
4 COMBINED AT	RRjctn	575.	12.00	125.	53.	42.	1.43		
HYDROGRAPH AT	S5D	445.	12.00	49.	15.	12.	0.34		
2 COMBINED AT	Saltil	1020.	12.00	174.	68.	54.	1.77		
HYDROGRAPH AT	S2B1	113.	12.00	15.	4.	4.	0.14		
3 COMBINED AT	BNSFB	1696.	12.40	779.	295.	237.	7.90		
ROUTED TO	R6A	1692.	12.40	779.	295.	237.	7.90		
HYDROGRAPH AT	S1G	264.	12.10	35.	11.	9.	0.19		
HYDROGRAPH AT	S1F	131.	12.30	28.	9.	7.	0.14		
2 COMBINED AT	Node12	357.	12.10	63.	20.	16.	0.33		
ROUTED TO	R5	318.	12.20	63.	20.	16.	0.33		
HYDROGRAPH AT	S1E	178.	12.10	28.	9.	7.	0.17		
ROUTED TO	27THA	62.	12.60	25.	8.	6.	0.17		
ROUTED TO	R3	48.	13.20	25.	8.	6.	0.17		
HYDROGRAPH AT	S1D	272.	12.10	38.	12.	10.	0.20		
3 COMBINED AT	Node11	564.	12.20	123.	40.	32.	0.70		
ROUTED TO	D37	510.	12.30	123.	40.	32.	0.70	1206.16	12.30
ROUTED TO	R2	489.	12.40	123.	40.	32.	0.70		
HYDROGRAPH AT	S1C	139.	12.30	26.	8.	7.	0.19		
ROUTED TO	PONDN	119.	12.40	25.	8.	7.	0.19	111.43	12.40
HYDROGRAPH AT	S1B	55.	12.10	8.	3.	2.	0.11		
2 COMBINED AT	Node14	145.	12.40	33.	11.	9.	0.30		
ROUTED TO	R4	145.	12.40	33.	11.	9.	0.30		
ROUTED TO	PONDK	79.	12.90	32.	11.	9.	0.30	93.03	12.90
2 COMBINED AT	Node10	524.	12.40	153.	51.	41.	1.00		
ROUTED TO	R1B	512.	12.50	153.	51.	41.	1.00		
HYDROGRAPH AT	S1A3	83.	12.20	16.	5.	4.	0.17		
2 COMBINED AT	Node9	578.	12.40	169.	55.	45.	1.17		
DIVERSION TO	BNDitc	242.	12.40	62.	20.	16.	1.17		
HYDROGRAPH AT	Node9A	337.	12.40	107.	35.	28.	1.17		
ROUTED TO	R1A	336.	12.50	107.	35.	28.	1.17	1177.77	12.50
HYDROGRAPH AT	S1A1	110.	12.10	15.	5.	4.	0.29		
2 COMBINED AT	14TH	368.	12.40	122.	40.	32.	1.46		
HYDROGRAPH AT	S1A4	46.	12.10	7.	2.	2.	0.06		
HYDROGRAPH AT	BNDitc	242.	12.40	62.	20.	16.	0.00		
2 COMBINED AT	Yankee	263.	12.40	69.	22.	18.	0.06		
HYDROGRAPH AT	S2B2	33.	12.20	6.	2.	1.	0.07		
ROUTED TO	det-u	16.	12.60	5.	2.	1.	0.07	103.09	12.60
HYDROGRAPH AT	S2A	83.	12.10	12.	4.	3.	0.24		
HYDROGRAPH AT	S2C	471.	12.00	51.	16.	13.	0.35		
6 COMBINED AT	NULLB	2454.	12.40	1035.	378.	304.	10.08		

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

5-year Storm
for
Built-out
Projected Conditions

5 YEAR

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	S2B3	66.	12.20	12.	4.	3.	0.07		
ROUTED TO	PONDA	64.	12.30	12.	4.	3.	0.07	120.66	12.30
ROUTED TO	R6C	13.	13.10	9.	4.	3.	0.07		
HYDROGRAPH AT	S2AD	245.	12.10	32.	10.	8.	0.17		
ROUTED TO	202	260.	12.10	32.	10.	8.	0.17	1325.88	12.10
ROUTED TO	66TH	219.	12.20	32.	10.	8.	0.17	1314.93	12.20
ROUTED TO	R16C	200.	12.30	32.	10.	8.	0.17	1342.92	12.30
HYDROGRAPH AT	S2AC	160.	12.10	22.	7.	5.	0.15		
2 COMBINED AT	Node84	335.	12.20	54.	17.	13.	0.32		
ROUTED TO	R16B	326.	12.20	54.	17.	13.	0.32	1289.14	12.20
HYDROGRAPH AT	S2AF	197.	12.20	37.	11.	9.	0.22		
ROUTED TO	Ps2af	42.	13.10	36.	11.	9.	0.22	1324.17	13.10
HYDROGRAPH AT	S2AE	159.	12.20	27.	8.	7.	0.17		
2 COMBINED AT	Node19	199.	12.20	63.	20.	16.	0.39		
ROUTED TO	R26A	198.	12.20	63.	20.	16.	0.39	1298.22	12.20
ROUTED TO	201	195.	12.30	63.	20.	16.	0.39	1292.34	12.30
2 COMBINED AT	R16A	519.	12.20	117.	36.	29.	0.71		
ROUTED TO	R16A	491.	12.30	117.	36.	29.	0.71	1284.67	12.30
HYDROGRAPH AT	S2AB	195.	12.20	33.	10.	8.	0.20		
2 COMBINED AT	Node75	671.	12.30	150.	46.	37.	0.91		
ROUTED TO	R15	603.	12.40	150.	46.	37.	0.91		
HYDROGRAPH AT	S2AA	152.	12.30	29.	9.	7.	0.20		
2 COMBINED AT	56THB	741.	12.40	179.	56.	45.	1.11		
ROUTED TO	R14C	700.	12.50	179.	56.	45.	1.11		
HYDROGRAPH AT	S2Z	133.	12.10	21.	6.	5.	0.11		
ROUTED TO	91	132.	12.20	21.	6.	5.	0.11	1277.54	12.20
2 COMBINED AT	Node64	760.	12.50	199.	62.	50.	1.22		
ROUTED TO	R14B	758.	12.50	199.	62.	50.	1.22		
HYDROGRAPH AT	S2Y	261.	12.30	50.	16.	12.	0.27		
ROUTED TO	90	255.	12.30	50.	16.	12.	0.27	1287.59	12.30
ROUTED TO	R25	239.	12.40	50.	16.	12.	0.27	2.01	12.40
ROUTED TO	CLV310	215.	12.60	50.	16.	12.	0.27	1264.35	12.60
HYDROGRAPH AT	S2X	85.	12.30	16.	5.	4.	0.09		
3 COMBINED AT	Node62	1030.	12.50	265.	82.	66.	1.58		
ROUTED TO	R14A	1018.	12.50	265.	82.	66.	1.58		
HYDROGRAPH AT	S2W	143.	12.30	28.	9.	7.	0.16		
2 COMBINED AT	Node57	1130.	12.50	293.	91.	73.	1.74		
ROUTED TO	R13	1116.	12.60	292.	91.	73.	1.74	105.67	12.60
HYDROGRAPH AT	S2V	305.	12.00	36.	11.	9.	0.21		
2 COMBINED AT	Node54	1163.	12.60	328.	102.	82.	1.95		
ROUTED TO	R12	1154.	12.60	327.	102.	82.	1.95	105.50	12.60
HYDROGRAPH AT	S2S	240.	12.10	32.	10.	8.	0.22		
ROUTED TO	R24B	222.	12.10	32.	10.	8.	0.22	1278.72	12.10
HYDROGRAPH AT	S2R	223.	12.10	32.	10.	8.	0.21		
2 COMBINED AT	REBEL	445.	12.10	65.	20.	16.	0.43		
ROUTED TO	56THA	369.	12.30	65.	20.	16.	0.43	1292.51	12.30
ROUTED TO	93	366.	12.30	65.	20.	16.	0.43	1276.24	12.30
ROUTED TO	S53RD	309.	12.40	65.	20.	16.	0.43	1267.74	12.40
ROUTED TO	R23A	307.	12.40	65.	20.	16.	0.43	1268.96	12.40
HYDROGRAPH AT	S2Q	149.	12.10	23.	7.	6.	0.14		

2 COMBINED AT	Node95	394.	12.40	88.	27.	22.	0.57			ROUTED TO	R18A	852.	12.20	184.	72.	61.	1.03	1226.91	12.20
ROUTED TO	R22	389.	12.40	88.	27.	22.	0.57			HYDROGRAPH AT	S2J	345.	12.20	57.	18.	15.	0.23		
HYDROGRAPH AT	S2P	134.	12.30	26.	8.	6.	0.19			2 COMBINED AT	Node28	1197.	12.20	241.	90.	76.	1.26		
2 COMBINED AT	Node92	508.	12.40	113.	35.	28.	0.76			ROUTED TO	DAMR17	69.	17.80	69.	51.	41.	1.26	1226.32	17.90
ROUTED TO	R21	287.	12.80	110.	35.	28.	0.76			2 COMBINED AT	Node25	1802.	12.60	658.	239.	191.	4.72		
HYDROGRAPH AT	S2U	181.	12.10	25.	8.	6.	0.12			ROUTED TO	R9	1801.	12.70	658.	238.	191.	4.72	107.45	12.70
HYDROGRAPH AT	S2O	364.	12.10	54.	17.	13.	0.27			HYDROGRAPH AT	S2H	424.	12.00	46.	14.	11.	0.20		
4 COMBINED AT	40THB	1549.	12.60	513.	162.	130.	3.10			HYDROGRAPH AT	S2I1	228.	12.00	25.	8.	6.	0.11		
ROUTED TO	R11	1543.	12.60	513.	162.	130.	3.10	106.49	12.60	HYDROGRAPH AT	S2I2	262.	12.20	46.	14.	11.	0.22		
HYDROGRAPH AT	S2T	610.	12.10	82.	26.	21.	0.36			4 COMBINED AT	Node21	2065.	12.30	768.	275.	220.	5.25		
ROUTED TO	R20	532.	12.20	82.	26.	21.	0.36			ROUTED TO	R8	2039.	12.40	767.	274.	220.	5.25	112.19	12.40
2 COMBINED AT	Node44	1770.	12.60	593.	187.	150.	3.46			HYDROGRAPH AT	S2G	175.	12.00	21.	7.	5.	0.09		
ROUTED TO	R10	1738.	12.60	592.	187.	150.	3.46	106.88	12.60	2 COMBINED AT	ROKEBY	2083.	12.40	787.	281.	225.	5.34		
HYDROGRAPH AT	S2M2	165.	12.30	32.	10.	8.	0.23			ROUTED TO	R7C	2078.	12.40	787.	281.	225.	5.34	108.78	12.40
ROUTED TO	S2MDAM	31.	13.30	28.	22.	22.	0.23	1.13	13.40	HYDROGRAPH AT	S2F2	351.	12.00	41.	13.	10.	0.18		
ROUTED TO	R19B	31.	13.50	28.	22.	21.	0.23	1254.65	13.40	2 COMBINED AT	Node15	2159.	12.40	826.	293.	236.	5.52		
HYDROGRAPH AT	S2M1	153.	12.10	24.	7.	6.	0.16			ROUTED TO	R7B	2152.	12.40	825.	293.	235.	5.52	108.91	12.40
HYDROGRAPH AT	S2N	115.	12.30	24.	7.	6.	0.16			HYDROGRAPH AT	S2E	449.	12.10	59.	19.	15.	0.25		
3 COMBINED AT	YANKB	275.	12.20	74.	37.	33.	0.55			ROUTED TO	S2EDAM	75.	12.70	39.	18.	15.	0.25	1222.95	12.70
ROUTED TO	191	263.	12.30	74.	37.	33.	0.55	1252.00	12.30	HYDROGRAPH AT	S2F1	275.	12.00	30.	9.	8.	0.15		
ROUTED TO	R19A	243.	12.40	74.	37.	33.	0.55	1244.49	12.40	3 COMBINED AT	Node11	2271.	12.40	893.	321.	258.	5.92		
HYDROGRAPH AT	S2L	382.	12.00	41.	13.	10.	0.17			ROUTED TO	R7A	2259.	12.50	892.	320.	257.	5.92	109.11	12.50
2 COMBINED AT	40THA	486.	12.00	114.	50.	43.	0.72			2 COMBINED AT	27THB	2269.	12.50	901.	324.	260.	5.99		
ROUTED TO	83	447.	12.10	114.	50.	43.	0.72	1240.36	12.10	ROUTED TO	R6B	2248.	12.60	900.	323.	260.	5.99	113.42	12.60
ROUTED TO	R18B	424.	12.20	114.	50.	43.	0.72	1237.11	12.20	HYDROGRAPH AT	S5A	274.	12.20	44.	14.	11.	0.22		
HYDROGRAPH AT	S2K	525.	12.10	71.	22.	18.	0.31			ROUTED TO	PondS5	102.	12.60	37.	14.	11.	0.22	1268.25	12.60
2 COMBINED AT	Node31	936.	12.10	184.	72.	61.	1.03												

ROUTED TO	R33	87.	12.90	37.	14.	11.	0.22	1197.83	12.90
HYDROGRAPH AT	S5B	448.	12.20	71.	22.	18.	0.37		
2 COMBINED AT	S5up	469.	12.20	107.	36.	29.	0.59		
ROUTED TO	PS5B	52.	15.00	50.	29.	24.	0.59	1236.40	15.00
ROUTED TO	R32	52.	15.40	50.	29.	23.	0.59	1196.69	15.40
HYDROGRAPH AT	S5C	372.	12.10	49.	15.	12.	0.23		
2 COMBINED AT	S38th	381.	12.10	90.	45.	36.	0.82		
ROUTED TO	R31	259.	12.30	89.	44.	35.	0.82	1199.84	12.30
HYDROGRAPH AT	S5E	305.	12.00	39.	12.	10.	0.18		
ROUTED TO	S38thS	247.	12.20	39.	12.	10.	0.18	1219.65	12.20
ROUTED TO	R34	43.	12.70	27.	11.	9.	0.18	1201.60	12.70
HYDROGRAPH AT	S5F	476.	12.00	54.	17.	13.	0.28		
HYDROGRAPH AT	S5G	285.	12.00	30.	9.	7.	0.15		
4 COMBINED AT	RRjctn	902.	12.00	196.	81.	65.	1.43		
HYDROGRAPH AT	S5D	661.	12.00	73.	23.	18.	0.34		
2 COMBINED AT	Saltil	1563.	12.00	267.	103.	83.	1.77		
HYDROGRAPH AT	S2B1	187.	12.00	23.	7.	6.	0.14		
3 COMBINED AT	BNSFB	2805.	12.10	1186.	434.	348.	7.90		
ROUTED TO	R6A	2782.	12.30	1186.	434.	348.	7.90		
HYDROGRAPH AT	S1G	366.	12.10	49.	16.	13.	0.19		
HYDROGRAPH AT	S1F	180.	12.30	38.	12.	10.	0.14		
2 COMBINED AT	Node12	496.	12.10	87.	28.	22.	0.33		
ROUTED TO	R5	451.	12.20	87.	28.	22.	0.33		
HYDROGRAPH AT	S1E	257.	12.10	40.	13.	10.	0.17		
ROUTED TO	27THA	95.	12.60	38.	12.	10.	0.17		
ROUTED TO	R3	79.	13.10	37.	12.	10.	0.17		
HYDROGRAPH AT	S1D	374.	12.10	53.	17.	14.	0.20		
3 COMBINED AT	Node11	795.	12.20	173.	57.	45.	0.70		
ROUTED TO	D37	719.	12.30	173.	57.	45.	0.70	1207.29	12.30
ROUTED TO	R2	692.	12.40	173.	57.	45.	0.70		
HYDROGRAPH AT	S1C	209.	12.30	39.	12.	10.	0.19		
ROUTED TO	PONDN	198.	12.40	38.	12.	10.	0.19	111.65	12.40
HYDROGRAPH AT	S1B	101.	12.10	14.	4.	4.	0.11		
2 COMBINED AT	Node14	260.	12.30	52.	17.	13.	0.30		
ROUTED TO	R4	254.	12.30	52.	17.	13.	0.30		
ROUTED TO	PONDK	187.	12.60	51.	17.	13.	0.30	93.39	12.60
2 COMBINED AT	Node10	827.	12.40	222.	73.	59.	1.00		
ROUTED TO	R1B	814.	12.50	222.	73.	59.	1.00		
HYDROGRAPH AT	S1A3	142.	12.20	26.	8.	6.	0.17		
2 COMBINED AT	Node9	910.	12.50	248.	81.	65.	1.17		
DIVERSION TO	BNDitc	427.	12.50	99.	31.	25.	1.17		
HYDROGRAPH AT	Node9A	484.	12.50	150.	50.	40.	1.17		
ROUTED TO	R1A	482.	12.50	150.	50.	40.	1.17	1178.55	12.50
HYDROGRAPH AT	S1A1	221.	12.10	29.	9.	7.	0.29		
2 COMBINED AT	14TH	537.	12.50	179.	59.	47.	1.46		
HYDROGRAPH AT	S1A4	75.	12.10	10.	3.	3.	0.06		
HYDROGRAPH AT	BNDitc	427.	12.50	99.	31.	25.	0.00		
2 COMBINED AT	Yankee	451.	12.50	109.	35.	28.	0.06		
HYDROGRAPH AT	S2B2	58.	12.20	10.	3.	2.	0.07		
ROUTED TO	det-u	33.	12.50	9.	3.	2.	0.07	103.33	12.50
HYDROGRAPH AT	S2A	172.	12.10	23.	7.	6.	0.24		
HYDROGRAPH AT	S2C	698.	12.00	75.	23.	19.	0.35		
6 COMBINED AT	NULLB	4018.	12.20	1577.	561.	450.	10.08		

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

10-year Storm
for
Built-out
Projected Conditions

10 YEAR

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	S2B3	88.	12.20	15.	5.	4.	0.07		
ROUTED TO	PONDA	86.	12.30	15.	5.	4.	0.07	120.97	12.30
ROUTED TO	R6C	18.	13.10	12.	5.	4.	0.07		
HYDROGRAPH AT	S2AD	319.	12.10	41.	13.	10.	0.17		
ROUTED TO	202	325.	12.10	41.	13.	10.	0.17	1326.08	12.10
ROUTED TO	66TH	261.	12.20	41.	13.	10.	0.17	1316.40	12.20
ROUTED TO	R16C	250.	12.30	41.	13.	10.	0.17	1343.07	12.30
HYDROGRAPH AT	S2AC	219.	12.10	30.	9.	7.	0.15		
2 COMBINED AT	Node84	429.	12.20	71.	22.	18.	0.32		
ROUTED TO	R16B	427.	12.20	71.	22.	18.	0.32	1289.33	12.20
HYDROGRAPH AT	S2AF	265.	12.20	49.	15.	12.	0.22		
ROUTED TO	Ps2af	43.	13.30	42.	15.	12.	0.22	1325.72	13.30
HYDROGRAPH AT	S2AE	215.	12.20	36.	11.	9.	0.17		
2 COMBINED AT	Node19	256.	12.20	77.	26.	21.	0.39		
ROUTED TO	R26A	255.	12.20	77.	26.	21.	0.39	1298.63	12.20
ROUTED TO	201	251.	12.20	77.	26.	21.	0.39	1293.49	12.20
2 COMBINED AT	R16A	678.	12.20	148.	48.	39.	0.71		
ROUTED TO	R16A	642.	12.30	147.	48.	39.	0.71	1284.83	12.30
HYDROGRAPH AT	S2AB	262.	12.20	44.	14.	11.	0.20		
2 COMBINED AT	Node75	882.	12.30	191.	62.	50.	0.91		
ROUTED TO	R15	803.	12.40	191.	62.	50.	0.91		
HYDROGRAPH AT	S2AA	209.	12.30	40.	12.	10.	0.20		
2 COMBINED AT	56THB	992.	12.40	230.	74.	60.	1.11		
ROUTED TO	R14C	937.	12.50	230.	74.	60.	1.11		
HYDROGRAPH AT	S2Z	175.	12.10	27.	8.	7.	0.11		
ROUTED TO	91	171.	12.20	27.	8.	7.	0.11	1278.31	12.20
2 COMBINED AT	Node64	1017.	12.50	256.	82.	66.	1.22		
ROUTED TO	R14B	1021.	12.50	256.	82.	66.	1.22		
HYDROGRAPH AT	S2Y	342.	12.30	65.	20.	16.	0.27		
ROUTED TO	90	328.	12.40	65.	20.	16.	0.27	1288.54	12.40
ROUTED TO	R25	317.	12.40	65.	20.	16.	0.27	2.25	12.40
ROUTED TO	CLV310	272.	12.60	65.	20.	16.	0.27	1265.17	12.60
HYDROGRAPH AT	S2X	112.	12.30	21.	7.	5.	0.09		
3 COMBINED AT	Node62	1366.	12.50	342.	109.	88.	1.58		
ROUTED TO	R14A	1347.	12.50	342.	109.	88.	1.58		
HYDROGRAPH AT	S2W	190.	12.30	36.	11.	9.	0.16		
2 COMBINED AT	Node57	1495.	12.50	378.	121.	97.	1.74		
ROUTED TO	R13	1473.	12.60	378.	121.	97.	1.74	106.52	12.60
HYDROGRAPH AT	S2V	405.	12.00	48.	15.	12.	0.21		
2 COMBINED AT	Node54	1539.	12.50	424.	135.	109.	1.95		
ROUTED TO	R12	1530.	12.60	424.	135.	109.	1.95	106.32	12.60
HYDROGRAPH AT	S2S	328.	12.10	44.	14.	11.	0.22		
ROUTED TO	R24B	308.	12.10	44.	14.	11.	0.22	1279.05	12.10
HYDROGRAPH AT	S2R	303.	12.10	43.	13.	11.	0.21		
2 COMBINED AT	REBEL	612.	12.10	87.	27.	22.	0.43		
ROUTED TO	56THA	609.	12.20	87.	27.	22.	0.43	1292.93	12.20
ROUTED TO	93	533.	12.30	87.	27.	22.	0.43	1278.11	12.30
ROUTED TO	S53RD	415.	12.40	87.	27.	22.	0.43	1269.03	12.40
ROUTED TO	R23A	414.	12.40	87.	27.	22.	0.43	1269.59	12.40
HYDROGRAPH AT	S2Q	200.	12.10	31.	10.	8.	0.14		

2 COMBINED AT	Node95	532.	12.30	118.	36.	29.	0.57	
ROUTED TO	R22	530.	12.40	118.	36.	29.	0.57	
HYDROGRAPH AT	S2P	187.	12.20	35.	11.	9.	0.19	
2 COMBINED AT	Node92	700.	12.30	153.	47.	38.	0.76	
ROUTED TO	R21	456.	12.70	150.	47.	38.	0.76	
HYDROGRAPH AT	S2U	231.	12.10	32.	10.	8.	0.12	
HYDROGRAPH AT	S2O	471.	12.10	70.	22.	17.	0.27	
4 COMBINED AT	40THB	2154.	12.60	671.	214.	172.	3.10	
ROUTED TO	R11	2152.	12.60	671.	214.	172.	3.10	107.56 12.60
HYDROGRAPH AT	S2T	766.	12.10	104.	33.	26.	0.36	
ROUTED TO	R20	635.	12.20	104.	33.	26.	0.36	
2 COMBINED AT	Node44	2428.	12.50	771.	247.	198.	3.46	
ROUTED TO	R10	2420.	12.60	771.	247.	198.	3.46	108.00 12.60
HYDROGRAPH AT	S2M2	228.	12.30	44.	14.	11.	0.23	
ROUTED TO	S2MDAM	37.	13.50	33.	24.	23.	0.23	1.70 13.50
ROUTED TO	R19B	37.	13.60	33.	24.	23.	0.23	1254.69 13.60
HYDROGRAPH AT	S2M1	210.	12.10	32.	10.	8.	0.16	
HYDROGRAPH AT	S2N	159.	12.30	32.	10.	8.	0.16	
3 COMBINED AT	YANKB	371.	12.20	96.	43.	39.	0.55	
ROUTED TO	191	345.	12.30	96.	43.	39.	0.55	1252.98 12.30
ROUTED TO	R19A	320.	12.40	95.	43.	39.	0.55	1244.73 12.40
HYDROGRAPH AT	S2L	474.	12.00	51.	16.	13.	0.17	
2 COMBINED AT	40THA	612.	12.00	145.	60.	52.	0.72	
ROUTED TO	83	521.	12.10	145.	60.	52.	0.72	1241.15 12.10
ROUTED TO	R18B	508.	12.20	145.	60.	51.	0.72	1237.42 12.20
HYDROGRAPH AT	S2K	660.	12.10	89.	28.	23.	0.31	
2 COMBINED AT	Node31	1138.	12.10	233.	88.	74.	1.03	
ROUTED TO	R18A	1037.	12.20	233.	88.	74.	1.03	1227.15 12.20
HYDROGRAPH AT	S2J	427.	12.20	71.	23.	18.	0.23	
2 COMBINED AT	Node28	1464.	12.20	304.	111.	92.	1.26	
ROUTED TO	DAMR17	72.	19.10	72.	54.	44.	1.26	1227.26 19.20
2 COMBINED AT	Node25	2487.	12.60	840.	301.	242.	4.72	
ROUTED TO	R9	2480.	12.60	840.	301.	242.	4.72	108.67 12.60
HYDROGRAPH AT	S2H	533.	12.00	58.	18.	15.	0.20	
HYDROGRAPH AT	S2I1	286.	12.00	32.	10.	8.	0.11	
HYDROGRAPH AT	S2I2	337.	12.20	58.	18.	15.	0.22	
4 COMBINED AT	Node21	2756.	12.40	980.	347.	279.	5.25	
ROUTED TO	R8	2750.	12.50	980.	347.	278.	5.25	113.56 12.50
HYDROGRAPH AT	S2G	219.	12.00	27.	8.	7.	0.09	
2 COMBINED AT	ROKEBY	2791.	12.50	1005.	355.	285.	5.34	
ROUTED TO	R7C	2793.	12.50	1005.	355.	285.	5.34	110.07 12.50
HYDROGRAPH AT	S2F2	441.	12.00	52.	16.	13.	0.18	
2 COMBINED AT	Node15	2873.	12.40	1054.	371.	298.	5.52	
ROUTED TO	R7B	2874.	12.50	1054.	371.	298.	5.52	110.19 12.50
HYDROGRAPH AT	S2E	560.	12.10	74.	23.	19.	0.25	
ROUTED TO	S2EDAM	127.	12.50	52.	23.	19.	0.25	1223.51 12.50
HYDROGRAPH AT	S2F1	351.	12.00	39.	12.	10.	0.15	
3 COMBINED AT	Node11	3053.	12.50	1143.	406.	326.	5.92	
ROUTED TO	R7A	3051.	12.50	1143.	406.	326.	5.92	110.45 12.50
2 COMBINED AT	27THB	3065.	12.50	1155.	411.	330.	5.99	
ROUTED TO	R6B	3052.	12.60	1154.	410.	329.	5.99	114.76 12.60
HYDROGRAPH AT	S5A	353.	12.20	57.	18.	14.	0.22	
ROUTED TO	PondS5	158.	12.50	48.	18.	14.	0.22	1268.84 12.50

ROUTED TO	R33	142.	12.80	48.	18.	14.	0.22	1198.28 12.80
HYDROGRAPH AT	S5B	581.	12.20	93.	29.	23.	0.37	
2 COMBINED AT	S5up	610.	12.20	139.	46.	37.	0.59	
ROUTED TO	PS5B	70.	14.70	66.	38.	31.	0.59	1237.93 14.70
ROUTED TO	R32	70.	15.00	66.	38.	31.	0.59	1197.27 15.00
HYDROGRAPH AT	S5C	474.	12.10	63.	20.	16.	0.23	
2 COMBINED AT	S38th	487.	12.10	117.	58.	46.	0.82	
ROUTED TO	R31	338.	12.20	116.	57.	46.	0.82	1200.36 12.20
HYDROGRAPH AT	S5E	390.	12.00	49.	15.	12.	0.18	
ROUTED TO	S38thS	300.	12.20	49.	15.	12.	0.18	1220.70 12.20
ROUTED TO	R34	77.	12.70	38.	14.	11.	0.18	1202.18 12.70
HYDROGRAPH AT	S5F	618.	12.00	70.	22.	17.	0.28	
HYDROGRAPH AT	S5G	367.	12.00	39.	12.	10.	0.15	
4 COMBINED AT	RRjctn	1181.	12.00	257.	105.	84.	1.43	
HYDROGRAPH AT	S5D	841.	12.00	93.	29.	23.	0.34	
2 COMBINED AT	Saltil	2022.	12.00	347.	134.	107.	1.77	
HYDROGRAPH AT	S2B1	251.	12.00	31.	10.	8.	0.14	
3 COMBINED AT	BNSFB	3801.	12.10	1529.	553.	444.	7.90	
ROUTED TO	R6A	3744.	12.40	1529.	553.	444.	7.90	
HYDROGRAPH AT	S1G	449.	12.10	60.	19.	16.	0.19	
HYDROGRAPH AT	S1F	219.	12.30	46.	15.	12.	0.14	
2 COMBINED AT	Node12	608.	12.10	106.	34.	28.	0.33	
ROUTED TO	R5	557.	12.20	106.	34.	28.	0.33	
HYDROGRAPH AT	S1E	323.	12.10	50.	16.	13.	0.17	
ROUTED TO	27THA	122.	12.50	48.	15.	12.	0.17	
ROUTED TO	R3	102.	13.00	47.	15.	12.	0.17	
HYDROGRAPH AT	S1D	457.	12.10	65.	21.	17.	0.20	
3 COMBINED AT	Node11	984.	12.20	215.	70.	57.	0.70	
ROUTED TO	D37	868.	12.30	215.	70.	57.	0.70	1208.20 12.30
ROUTED TO	R2	846.	12.40	215.	70.	57.	0.70	
HYDROGRAPH AT	S1C	269.	12.30	50.	16.	13.	0.19	
ROUTED TO	PONDN	260.	12.30	49.	16.	13.	0.19	111.79 12.30
HYDROGRAPH AT	S1B	142.	12.10	20.	6.	5.	0.11	
2 COMBINED AT	Node14	348.	12.20	68.	22.	17.	0.30	
ROUTED TO	R4	346.	12.30	68.	22.	17.	0.30	
ROUTED TO	PONDK	276.	12.50	67.	22.	17.	0.30	93.69 12.50
2 COMBINED AT	Node10	1099.	12.40	280.	92.	74.	1.00	
ROUTED TO	R1B	1088.	12.50	280.	92.	74.	1.00	
HYDROGRAPH AT	S1A3	194.	12.20	35.	11.	9.	0.17	
2 COMBINED AT	Node9	1217.	12.50	315.	103.	83.	1.17	
DIVERSION TO	BNDitc	606.	12.50	131.	41.	33.	1.17	
HYDROGRAPH AT	Node9A	610.	12.50	184.	62.	49.	1.17	
ROUTED TO	R1A	612.	12.50	184.	62.	49.	1.17	1179.12 12.50
HYDROGRAPH AT	S1A1	324.	12.10	42.	13.	10.	0.29	
2 COMBINED AT	14TH	691.	12.40	226.	75.	60.	1.46	
HYDROGRAPH AT	S1A4	99.	12.10	14.	4.	3.	0.06	
HYDROGRAPH AT	BNDitc	606.	12.50	131.	41.	33.	0.00	
2 COMBINED AT	Yankee	644.	12.40	145.	46.	37.	0.06	
HYDROGRAPH AT	S2B2	80.	12.20	13.	4.	3.	0.07	
ROUTED TO	det-u	60.	12.40	13.	4.	3.	0.07	103.55 12.40
HYDROGRAPH AT	S2A	255.	12.10	33.	10.	8.	0.24	
HYDROGRAPH AT	S2C	886.	12.00	95.	30.	24.	0.35	
6 COMBINED AT	NULLB	5375.	12.40	2036.	717.	576.	10.08	

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

25-year Storm
for
Built-out
Projected Conditions

25 YEAR

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	S2B3	109.	12.20	19.	6.	5.	0.07		
ROUTED TO	PONDA	106.	12.30	19.	6.	5.	0.07	121.22	12.30
ROUTED TO	R6C	22.	13.10	15.	6.	5.	0.07		
HYDROGRAPH AT	S2AD	386.	12.10	50.	16.	13.	0.17		
ROUTED TO	202	380.	12.10	50.	16.	13.	0.17	1326.18	12.10
ROUTED TO	66TH	302.	12.20	50.	16.	13.	0.17	1317.58	12.20
ROUTED TO	R16C	290.	12.30	50.	16.	13.	0.17	1343.19	12.30
HYDROGRAPH AT	S2AC	273.	12.10	37.	11.	9.	0.15		
2 COMBINED AT	Node84	509.	12.20	87.	27.	22.	0.32		
ROUTED TO	R16B	514.	12.20	87.	27.	22.	0.32	1289.47	12.20
HYDROGRAPH AT	S2AF	328.	12.20	60.	18.	15.	0.22		
ROUTED TO	Ps2af	43.	13.40	43.	18.	15.	0.22	1326.51	13.50
HYDROGRAPH AT	S2AE	266.	12.20	45.	14.	11.	0.17		
2 COMBINED AT	Node19	307.	12.20	87.	32.	26.	0.39		
ROUTED TO	R26A	307.	12.20	87.	32.	26.	0.39	1298.95	12.20
ROUTED TO	201	306.	12.20	87.	32.	26.	0.39	1293.86	12.20
2 COMBINED AT	R16A	820.	12.20	173.	59.	48.	0.71		
ROUTED TO	R16A	782.	12.30	172.	59.	48.	0.71	1284.96	12.30
HYDROGRAPH AT	S2AB	323.	12.20	54.	17.	13.	0.20		
2 COMBINED AT	Node75	1077.	12.30	226.	76.	61.	0.91		
ROUTED TO	R15	979.	12.40	226.	76.	61.	0.91		
HYDROGRAPH AT	S2AA	261.	12.30	49.	15.	12.	0.20		
2 COMBINED AT	56THB	1215.	12.40	275.	91.	73.	1.11		
ROUTED TO	R14C	1151.	12.50	275.	91.	73.	1.11		
HYDROGRAPH AT	S2Z	213.	12.10	32.	10.	8.	0.11		
ROUTED TO	91	208.	12.20	32.	10.	8.	0.11	1279.02	12.20
2 COMBINED AT	Node64	1258.	12.40	307.	102.	82.	1.22		
ROUTED TO	R14B	1256.	12.50	307.	102.	82.	1.22		
HYDROGRAPH AT	S2Y	416.	12.30	79.	25.	20.	0.27		
ROUTED TO	90	391.	12.40	79.	25.	20.	0.27	1289.52	12.40
ROUTED TO	R25	379.	12.50	79.	25.	20.	0.27	2.41	12.50
ROUTED TO	CLV310	319.	12.70	79.	25.	20.	0.27	1265.83	12.70
HYDROGRAPH AT	S2X	137.	12.30	26.	8.	6.	0.09		
3 COMBINED AT	Node62	1656.	12.50	411.	134.	108.	1.58		
ROUTED TO	R14A	1656.	12.50	411.	134.	108.	1.58		
HYDROGRAPH AT	S2W	233.	12.30	45.	14.	11.	0.16		
2 COMBINED AT	Node57	1835.	12.50	455.	148.	119.	1.74		
ROUTED TO	R13	1808.	12.50	455.	148.	119.	1.74	107.16	12.50
HYDROGRAPH AT	S2V	497.	12.00	59.	18.	15.	0.21		
2 COMBINED AT	Node54	1898.	12.50	512.	166.	134.	1.95		
ROUTED TO	R12	1880.	12.60	512.	166.	134.	1.95	106.98	12.60
HYDROGRAPH AT	S2S	410.	12.10	54.	17.	14.	0.22		
ROUTED TO	R24B	389.	12.10	54.	17.	14.	0.22	1279.30	12.10
HYDROGRAPH AT	S2R	378.	12.10	54.	17.	13.	0.21		
2 COMBINED AT	REBEL	767.	12.10	108.	33.	27.	0.43		
ROUTED TO	56THA	743.	12.20	108.	33.	27.	0.43	1293.15	12.20
ROUTED TO	93	652.	12.30	108.	33.	27.	0.43	1279.31	12.30
ROUTED TO	S53RD	504.	12.40	108.	33.	27.	0.43	1270.02	12.40
ROUTED TO	R23A	507.	12.50	108.	33.	27.	0.43	1270.05	12.50
HYDROGRAPH AT	S2Q	247.	12.10	38.	12.	9.	0.14		

2 COMBINED AT	Node95	643.	12.30	146.	45.	36.	0.57	
ROUTED TO	R22	640.	12.40	146.	45.	36.	0.57	
HYDROGRAPH AT	S2P	238.	12.20	44.	14.	11.	0.19	
2 COMBINED AT	Node92	858.	12.30	190.	59.	47.	0.76	
ROUTED TO	R21	605.	12.70	186.	59.	47.	0.76	
HYDROGRAPH AT	S2U	277.	12.10	38.	12.	10.	0.12	
HYDROGRAPH AT	S2O	567.	12.10	84.	26.	21.	0.27	
4 COMBINED AT	40THB	2692.	12.60	816.	263.	211.	3.10	
ROUTED TO	R11	2696.	12.60	816.	263.	211.	3.10	108.45 12.60
HYDROGRAPH AT	S2T	906.	12.10	123.	39.	31.	0.36	
ROUTED TO	R20	786.	12.20	123.	39.	31.	0.36	
2 COMBINED AT	Node44	3046.	12.50	935.	302.	243.	3.46	
ROUTED TO	R10	3023.	12.60	934.	302.	243.	3.46	108.86 12.60
HYDROGRAPH AT	S2M2	288.	12.30	55.	17.	14.	0.23	
ROUTED TO	S2MDAM	44.	13.50	38.	26.	25.	0.23	2.20 13.50
ROUTED TO	R19B	44.	13.60	38.	26.	25.	0.23	1254.75 13.60
HYDROGRAPH AT	S2M1	264.	12.10	40.	12.	10.	0.16	
HYDROGRAPH AT	S2N	199.	12.30	40.	12.	10.	0.16	
3 COMBINED AT	YANKB	461.	12.20	115.	50.	44.	0.55	
ROUTED TO	191	421.	12.30	115.	50.	44.	0.55	1253.81 12.30
ROUTED TO	R19A	393.	12.40	115.	50.	44.	0.55	1244.91 12.40
HYDROGRAPH AT	S2L	555.	12.00	61.	19.	16.	0.17	
2 COMBINED AT	40THA	725.	12.00	173.	70.	60.	0.72	
ROUTED TO	83	599.	12.10	173.	70.	60.	0.72	1241.82 12.10
ROUTED TO	R18B	583.	12.20	173.	70.	59.	0.72	1237.68 12.20
HYDROGRAPH AT	S2K	780.	12.10	106.	34.	27.	0.31	
2 COMBINED AT	Node31	1321.	12.10	278.	103.	86.	1.03	
ROUTED TO	R18A	1205.	12.20	278.	103.	86.	1.03	1227.31 12.20
HYDROGRAPH AT	S2J	499.	12.20	84.	27.	22.	0.23	
2 COMBINED AT	Node28	1704.	12.20	360.	130.	108.	1.26	
ROUTED TO	DAMR17	74.	20.00	74.	57.	46.	1.26	1228.04 20.10
2 COMBINED AT	Node25	3093.	12.60	1005.	359.	288.	4.72	
ROUTED TO	R9	3091.	12.60	1005.	359.	288.	4.72	109.56 12.60
HYDROGRAPH AT	S2H	629.	12.00	68.	22.	17.	0.20	
HYDROGRAPH AT	S2I1	339.	12.00	38.	12.	10.	0.11	
HYDROGRAPH AT	S2I2	405.	12.20	70.	22.	18.	0.22	
4 COMBINED AT	Node21	3444.	12.40	1174.	414.	333.	5.25	
ROUTED TO	R8	3432.	12.50	1173.	414.	332.	5.25	114.51 12.50
HYDROGRAPH AT	S2G	258.	12.00	31.	10.	8.	0.09	
2 COMBINED AT	ROKEBY	3480.	12.40	1203.	423.	340.	5.34	
ROUTED TO	R7C	3484.	12.50	1203.	423.	340.	5.34	111.07 12.50
HYDROGRAPH AT	S2F2	523.	12.00	61.	19.	16.	0.18	
2 COMBINED AT	Node15	3588.	12.40	1262.	443.	356.	5.52	
ROUTED TO	R7B	3581.	12.50	1262.	443.	355.	5.52	111.21 12.50
HYDROGRAPH AT	S2E	659.	12.10	87.	28.	22.	0.25	
ROUTED TO	S2EDAM	175.	12.50	65.	27.	22.	0.25	1224.00 12.50
HYDROGRAPH AT	S2F1	421.	12.00	46.	15.	12.	0.15	
3 COMBINED AT	Node11	3830.	12.40	1372.	485.	389.	5.92	
ROUTED TO	R7A	3823.	12.50	1371.	484.	389.	5.92	111.55 12.50
2 COMBINED AT	27THB	3840.	12.50	1386.	490.	393.	5.99	
ROUTED TO	R6B	3821.	12.60	1386.	489.	393.	5.99	115.87 12.60
HYDROGRAPH AT	S5A	424.	12.20	68.	21.	17.	0.22	
ROUTED TO	PondS5	320.	12.40	59.	21.	17.	0.22	1269.16 12.40

ROUTED TO	R33	211.	12.50	58.	21.	17.	0.22	1198.79 12.50
HYDROGRAPH AT	S5B	702.	12.20	112.	35.	28.	0.37	
2 COMBINED AT	S5up	743.	12.20	169.	56.	45.	0.59	
ROUTED TO	PS5B	86.	14.40	81.	47.	37.	0.59	1239.35 14.40
ROUTED TO	R32	86.	14.80	81.	46.	37.	0.59	1197.82 14.80
HYDROGRAPH AT	S5C	564.	12.10	75.	24.	19.	0.23	
2 COMBINED AT	S38th	582.	12.10	142.	70.	56.	0.82	
ROUTED TO	R31	411.	12.20	141.	69.	56.	0.82	1200.62 12.20
HYDROGRAPH AT	S5E	466.	12.00	59.	18.	15.	0.18	
ROUTED TO	S38thS	329.	12.20	59.	18.	15.	0.18	1221.44 12.20
ROUTED TO	R34	106.	12.70	47.	17.	14.	0.18	1202.68 12.70
HYDROGRAPH AT	S5F	747.	12.00	85.	26.	21.	0.28	
HYDROGRAPH AT	S5G	440.	12.00	47.	15.	12.	0.15	
4 COMBINED AT	RRjctn	1440.	12.00	312.	127.	102.	1.43	
HYDROGRAPH AT	S5D	1003.	12.00	111.	35.	28.	0.34	
2 COMBINED AT	Saltil	2443.	12.00	419.	162.	130.	1.77	
HYDROGRAPH AT	S2B1	310.	12.00	38.	12.	9.	0.14	
3 COMBINED AT	BNSFB	4712.	12.10	1841.	663.	532.	7.90	
ROUTED TO	R6A	4618.	12.50	1841.	663.	532.	7.90	
HYDROGRAPH AT	S1G	524.	12.10	70.	23.	18.	0.19	
HYDROGRAPH AT	S1F	254.	12.30	54.	18.	14.	0.14	
2 COMBINED AT	Node12	708.	12.10	124.	40.	32.	0.33	
ROUTED TO	R5	662.	12.20	124.	40.	32.	0.33	
HYDROGRAPH AT	S1E	381.	12.10	59.	19.	15.	0.17	
ROUTED TO	27THA	140.	12.60	57.	18.	15.	0.17	
ROUTED TO	R3	124.	13.00	56.	18.	15.	0.17	
HYDROGRAPH AT	S1D	532.	12.10	75.	25.	20.	0.20	
3 COMBINED AT	Node11	1163.	12.20	252.	83.	67.	0.70	
ROUTED TO	D37	953.	12.30	252.	83.	67.	0.70	1209.14 12.30
ROUTED TO	R2	925.	12.40	252.	83.	67.	0.70	
HYDROGRAPH AT	S1C	322.	12.20	60.	19.	15.	0.19	
ROUTED TO	PONDN	314.	12.30	59.	19.	15.	0.19	111.92 12.30
HYDROGRAPH AT	S1B	181.	12.10	25.	8.	6.	0.11	
2 COMBINED AT	Node14	431.	12.20	83.	27.	21.	0.30	
ROUTED TO	R4	432.	12.30	83.	27.	21.	0.30	
ROUTED TO	PONDK	353.	12.50	82.	27.	21.	0.30	93.94 12.50
2 COMBINED AT	Node10	1275.	12.50	332.	109.	88.	1.00	
ROUTED TO	R1B	1260.	12.50	332.	109.	88.	1.00	
HYDROGRAPH AT	S1A3	242.	12.20	43.	13.	11.	0.17	
2 COMBINED AT	Node9	1419.	12.50	376.	123.	99.	1.17	
DIVERSION TO	BNDitc	730.	12.50	162.	51.	41.	1.17	
HYDROGRAPH AT	Node9A	690.	12.50	214.	72.	58.	1.17	
ROUTED TO	R1A	690.	12.50	214.	72.	58.	1.17	1179.43 12.50
HYDROGRAPH AT	S1A1	423.	12.00	55.	17.	13.	0.29	
2 COMBINED AT	14TH	804.	12.40	268.	89.	71.	1.46	
HYDROGRAPH AT	S1A4	121.	12.10	17.	5.	4.	0.06	
HYDROGRAPH AT	BNDitc	730.	12.50	162.	51.	41.	0.00	
2 COMBINED AT	Yankee	776.	12.40	179.	56.	45.	0.06	
HYDROGRAPH AT	S2B2	101.	12.20	17.	5.	4.	0.07	
ROUTED TO	det-u	83.	12.30	16.	5.	4.	0.07	103.71 12.30
HYDROGRAPH AT	S2A	335.	12.10	43.	13.	11.	0.24	
HYDROGRAPH AT	S2C	1056.	12.00	114.	36.	29.	0.35	
6 COMBINED AT	NULLB	6522.	12.40	2456.	861.	692.	10.08	

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

50-year Storm
for
Built-out
Projected Conditions

50 YEAR

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	S2B3	128.	12.20	22.	7.	6.	0.07		
ROUTED TO	PONDA	125.	12.30	22.	7.	6.	0.07	121.43	12.30
ROUTED TO	R6C	26.	13.10	18.	7.	5.	0.07		
HYDROGRAPH AT	S2AD	449.	12.10	58.	18.	15.	0.17		
ROUTED TO	202	443.	12.10	58.	18.	15.	0.17	1326.30	12.10
ROUTED TO	66TH	379.	12.20	58.	18.	15.	0.17	1318.34	12.20
ROUTED TO	R16C	343.	12.30	58.	18.	15.	0.17	1343.31	12.30
HYDROGRAPH AT	S2AC	325.	12.10	44.	14.	11.	0.15		
2 COMBINED AT	Node84	604.	12.20	102.	32.	26.	0.32		
ROUTED TO	R16B	604.	12.20	102.	32.	26.	0.32	1289.61	12.20
HYDROGRAPH AT	S2AF	387.	12.20	70.	22.	17.	0.22		
ROUTED TO	Ps2af	44.	13.60	44.	22.	17.	0.22	1327.28	13.60
HYDROGRAPH AT	S2AE	315.	12.20	53.	16.	13.	0.17		
2 COMBINED AT	Node19	357.	12.20	95.	38.	31.	0.39		
ROUTED TO	R26A	356.	12.20	95.	38.	31.	0.39	1299.18	12.20
ROUTED TO	201	350.	12.20	95.	38.	31.	0.39	1294.16	12.20
2 COMBINED AT	R16A	954.	12.20	196.	70.	56.	0.71		
ROUTED TO	R16A	918.	12.30	196.	70.	56.	0.71	1285.07	12.30
HYDROGRAPH AT	S2AB	381.	12.20	64.	20.	16.	0.20		
2 COMBINED AT	Node75	1264.	12.30	259.	90.	72.	0.91		
ROUTED TO	R15	1153.	12.40	259.	90.	72.	0.91		
HYDROGRAPH AT	S2AA	311.	12.30	59.	18.	15.	0.20		
2 COMBINED AT	56THB	1433.	12.40	317.	108.	87.	1.11		
ROUTED TO	R14C	1371.	12.50	317.	108.	87.	1.11		
HYDROGRAPH AT	S2Z	248.	12.10	38.	12.	9.	0.11		
ROUTED TO	91	242.	12.20	38.	12.	9.	0.11	1279.68	12.20
2 COMBINED AT	Node64	1531.	12.40	354.	120.	96.	1.22		
ROUTED TO	R14B	1518.	12.40	354.	120.	96.	1.22		
HYDROGRAPH AT	S2Y	485.	12.30	92.	29.	23.	0.27		
ROUTED TO	90	439.	12.40	92.	29.	23.	0.27	1290.34	12.40
ROUTED TO	R25	430.	12.50	92.	29.	23.	0.27	2.54	12.50
ROUTED TO	CLV310	408.	12.60	92.	29.	23.	0.27	1266.17	12.60
HYDROGRAPH AT	S2X	160.	12.30	30.	9.	8.	0.09		
3 COMBINED AT	Node62	1958.	12.50	476.	158.	127.	1.58		
ROUTED TO	R14A	1967.	12.50	476.	158.	127.	1.58		
HYDROGRAPH AT	S2W	273.	12.30	52.	16.	13.	0.16		
2 COMBINED AT	Node57	2177.	12.50	528.	174.	140.	1.74		
ROUTED TO	R13	2157.	12.50	527.	174.	140.	1.74	107.77	12.50
HYDROGRAPH AT	S2V	583.	12.00	69.	21.	17.	0.21		
2 COMBINED AT	Node54	2261.	12.50	595.	196.	157.	1.95		
ROUTED TO	R12	2231.	12.60	595.	196.	157.	1.95	107.54	12.60
HYDROGRAPH AT	S2S	487.	12.10	65.	20.	16.	0.22		
ROUTED TO	R24B	465.	12.10	65.	20.	16.	0.22	1279.53	12.10
HYDROGRAPH AT	S2R	449.	12.10	63.	20.	16.	0.21		
2 COMBINED AT	REBEL	914.	12.10	128.	40.	32.	0.43		
ROUTED TO	56THA	878.	12.20	128.	40.	32.	0.43	1293.31	12.20
ROUTED TO	93	747.	12.30	128.	40.	32.	0.43	1280.21	12.30
ROUTED TO	S53RD	574.	12.50	128.	40.	32.	0.43	1270.76	12.50
ROUTED TO	R23A	574.	12.50	128.	40.	32.	0.43	1270.30	12.50
HYDROGRAPH AT	S2Q	292.	12.10	45.	14.	11.	0.14		

2 COMBINED AT	Node95	730.	12.30	172.	53.	43.	0.57	
ROUTED TO	R22	725.	12.40	172.	53.	43.	0.57	
HYDROGRAPH AT	S2P	287.	12.20	53.	16.	13.	0.19	
2 COMBINED AT	Node92	996.	12.30	225.	70.	56.	0.76	
ROUTED TO	R21	716.	12.70	221.	70.	56.	0.76	
HYDROGRAPH AT	S2U	320.	12.10	44.	14.	11.	0.12	
HYDROGRAPH AT	S2O	658.	12.10	97.	30.	24.	0.27	
4 COMBINED AT	40THB	3198.	12.50	952.	310.	249.	3.10	
ROUTED TO	R11	3205.	12.60	952.	310.	249.	3.10	109.09 12.60
HYDROGRAPH AT	S2T	1036.	12.10	141.	45.	36.	0.36	
ROUTED TO	R20	919.	12.20	141.	45.	36.	0.36	
2 COMBINED AT	Node44	3669.	12.50	1089.	355.	285.	3.46	
ROUTED TO	R10	3609.	12.60	1088.	355.	285.	3.46	109.60 12.60
HYDROGRAPH AT	S2M2	344.	12.30	66.	20.	16.	0.23	
ROUTED TO	S2MDAM	52.	13.50	44.	28.	26.	0.23	2.61 13.50
ROUTED TO	R19B	52.	13.60	44.	28.	26.	0.23	1254.81 13.60
HYDROGRAPH AT	S2M1	315.	12.10	47.	15.	12.	0.16	
HYDROGRAPH AT	S2N	237.	12.30	47.	15.	12.	0.16	
3 COMBINED AT	YANKB	546.	12.20	135.	57.	50.	0.55	
ROUTED TO	191	484.	12.30	135.	57.	50.	0.55	1254.47 12.30
ROUTED TO	R19A	457.	12.40	135.	57.	50.	0.55	1245.04 12.40
HYDROGRAPH AT	S2L	631.	12.00	69.	22.	18.	0.17	
2 COMBINED AT	40THA	824.	12.00	201.	79.	67.	0.72	
ROUTED TO	83	693.	12.10	201.	79.	67.	0.72	1242.21 12.10
ROUTED TO	R18B	671.	12.20	201.	79.	67.	0.72	1237.92 12.20
HYDROGRAPH AT	S2K	892.	12.10	121.	39.	31.	0.31	
2 COMBINED AT	Node31	1503.	12.10	321.	118.	98.	1.03	
ROUTED TO	R18A	1371.	12.20	320.	118.	98.	1.03	1227.48 12.20
HYDROGRAPH AT	S2J	567.	12.20	95.	31.	25.	0.23	
2 COMBINED AT	Node28	1937.	12.20	414.	149.	123.	1.26	
ROUTED TO	DAMR17	76.	21.10	76.	59.	48.	1.26	1228.71 21.20
2 COMBINED AT	Node25	3679.	12.60	1160.	414.	332.	4.72	
ROUTED TO	R9	3682.	12.60	1160.	413.	332.	4.72	110.36 12.60
HYDROGRAPH AT	S2H	719.	12.00	78.	25.	20.	0.20	
HYDROGRAPH AT	S2I1	387.	12.00	43.	14.	11.	0.11	
HYDROGRAPH AT	S2I2	468.	12.20	81.	25.	20.	0.22	
4 COMBINED AT	Node21	4099.	12.40	1355.	477.	383.	5.25	
ROUTED TO	R8	4089.	12.40	1355.	477.	383.	5.25	115.38 12.40
HYDROGRAPH AT	S2G	295.	12.00	36.	11.	9.	0.09	
2 COMBINED AT	ROKEBY	4161.	12.40	1390.	488.	392.	5.34	
ROUTED TO	R7C	4151.	12.40	1389.	488.	392.	5.34	111.94 12.40
HYDROGRAPH AT	S2F2	598.	12.00	70.	22.	18.	0.18	
2 COMBINED AT	Node15	4285.	12.40	1457.	510.	410.	5.52	
ROUTED TO	R7B	4271.	12.40	1457.	510.	410.	5.52	112.05 12.40
HYDROGRAPH AT	S2E	751.	12.10	100.	32.	26.	0.25	
ROUTED TO	S2EDAM	347.	12.30	77.	32.	25.	0.25	1224.19 12.30
HYDROGRAPH AT	S2F1	485.	12.00	54.	17.	14.	0.15	
3 COMBINED AT	Node11	4688.	12.40	1586.	558.	449.	5.92	
ROUTED TO	R7A	4643.	12.40	1586.	558.	448.	5.92	112.39 12.40
2 COMBINED AT	27THB	4661.	12.40	1603.	565.	454.	5.99	
ROUTED TO	R6B	4655.	12.50	1603.	564.	453.	5.99	116.96 12.50
HYDROGRAPH AT	S5A	491.	12.20	79.	25.	20.	0.22	
ROUTED TO	PondS5	420.	12.30	69.	25.	20.	0.22	1269.27 12.30

ROUTED TO	R33	293.	12.50	68.	25.	20.	0.22	1199.39 12.50
HYDROGRAPH AT	S5B	814.	12.20	130.	41.	33.	0.37	
2 COMBINED AT	S5up	874.	12.20	197.	66.	53.	0.59	
ROUTED TO	PS5B	95.	14.50	93.	54.	43.	0.59	1240.47 14.50
ROUTED TO	R32	95.	14.70	93.	54.	43.	0.59	1197.94 14.60
HYDROGRAPH AT	S5C	649.	12.10	86.	27.	22.	0.23	
2 COMBINED AT	S38th	670.	12.10	164.	81.	65.	0.82	
ROUTED TO	R31	478.	12.20	162.	80.	64.	0.82	1200.85 12.20
HYDROGRAPH AT	S5E	537.	12.00	67.	21.	17.	0.18	
ROUTED TO	S38thS	359.	12.20	67.	21.	17.	0.18	1222.18 12.20
ROUTED TO	R34	137.	12.70	56.	20.	16.	0.18	1203.13 12.70
HYDROGRAPH AT	S5F	867.	12.00	98.	31.	25.	0.28	
HYDROGRAPH AT	S5G	508.	12.00	54.	17.	14.	0.15	
4 COMBINED AT	RRjctn	1681.	12.00	362.	148.	119.	1.43	
HYDROGRAPH AT	S5D	1152.	12.00	127.	40.	32.	0.34	
2 COMBINED AT	Saltil	2833.	12.00	485.	188.	151.	1.77	
HYDROGRAPH AT	S2B1	365.	12.00	45.	14.	11.	0.14	
3 COMBINED AT	BNSFB	5632.	12.40	2130.	766.	615.	7.90	
ROUTED TO	R6A	5597.	12.50	2130.	766.	615.	7.90	
HYDROGRAPH AT	S1G	592.	12.10	80.	26.	21.	0.19	
HYDROGRAPH AT	S1F	286.	12.30	61.	20.	16.	0.14	
2 COMBINED AT	Node12	800.	12.10	140.	46.	37.	0.33	
ROUTED TO	R5	748.	12.20	140.	46.	37.	0.33	
HYDROGRAPH AT	S1E	435.	12.10	68.	22.	17.	0.17	
ROUTED TO	27THA	145.	12.60	66.	21.	17.	0.17	
ROUTED TO	R3	134.	13.20	65.	21.	17.	0.17	
HYDROGRAPH AT	S1D	600.	12.10	85.	28.	22.	0.20	
3 COMBINED AT	Node11	1325.	12.10	286.	94.	76.	0.70	
ROUTED TO	D37	1049.	12.30	286.	94.	76.	0.70	1210.08 12.30
ROUTED TO	R2	1009.	12.50	286.	94.	76.	0.70	
HYDROGRAPH AT	S1C	373.	12.20	70.	22.	18.	0.19	
ROUTED TO	PONDN	363.	12.30	68.	22.	18.	0.19	112.03 12.30
HYDROGRAPH AT	S1B	218.	12.10	30.	9.	7.	0.11	
2 COMBINED AT	Node14	508.	12.20	98.	31.	25.	0.30	
ROUTED TO	R4	500.	12.30	98.	31.	25.	0.30	
ROUTED TO	PONDK	426.	12.50	97.	31.	25.	0.30	94.14 12.50
2 COMBINED AT	Node10	1435.	12.50	381.	125.	101.	1.00	
ROUTED TO	R1B	1406.	12.60	381.	125.	101.	1.00	
HYDROGRAPH AT	S1A3	288.	12.20	51.	16.	13.	0.17	
2 COMBINED AT	Node9	1592.	12.50	432.	141.	114.	1.17	
DIVERSION TO	BNDitc	836.	12.50	191.	59.	48.	1.17	
HYDROGRAPH AT	Node9A	755.	12.50	241.	82.	66.	1.17	
ROUTED TO	R1A	756.	12.50	241.	82.	66.	1.17	1179.68 12.50
HYDROGRAPH AT	S1A1	525.	12.00	67.	20.	16.	0.29	
2 COMBINED AT	14TH	939.	12.10	308.	102.	82.	1.46	
HYDROGRAPH AT	S1A4	142.	12.10	20.	6.	5.	0.06	
HYDROGRAPH AT	BNDitc	836.	12.50	191.	59.	48.	0.00	
2 COMBINED AT	Yankee	895.	12.40	211.	66.	53.	0.06	
HYDROGRAPH AT	S2B2	121.	12.20	20.	6.	5.	0.07	
ROUTED TO	det-u	106.	12.30	20.	6.	5.	0.07	103.88 12.30
HYDROGRAPH AT	S2A	417.	12.00	53.	16.	13.	0.24	
HYDROGRAPH AT	S2C	1212.	12.00	131.	41.	33.	0.35	
6 COMBINED AT	NULLB	7827.	12.30	2847.	997.	801.	10.08	

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

100-year Storm for Built-out Projected Conditions

100 YEAR

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	S2B3	150.	12.20	26.	8.	6.	0.07		
ROUTED TO	PONDA	145.	12.30	26.	8.	6.	0.07	121.64	12.30
ROUTED TO	R6C	30.	13.10	21.	8.	6.	0.07		
HYDROGRAPH AT	S2AD	517.	12.10	67.	21.	17.	0.17		
ROUTED TO	202	516.	12.10	67.	21.	17.	0.17	1326.41	12.10
ROUTED TO	66TH	462.	12.20	67.	21.	17.	0.17	1318.55	12.20
ROUTED TO	R16C	425.	12.20	67.	21.	17.	0.17	1343.50	12.20
HYDROGRAPH AT	S2AC	382.	12.10	52.	16.	13.	0.15		
2 COMBINED AT	Node84	744.	12.20	119.	37.	30.	0.32		
ROUTED TO	R16B	737.	12.20	119.	37.	30.	0.32	1289.79	12.20
HYDROGRAPH AT	S2AF	452.	12.20	81.	25.	20.	0.22		
ROUTED TO	Ps2af	44.	13.80	44.	25.	20.	0.22	1328.15	13.80
HYDROGRAPH AT	S2AE	368.	12.20	61.	19.	15.	0.17		
2 COMBINED AT	Node19	410.	12.20	104.	45.	36.	0.39		
ROUTED TO	R26A	410.	12.20	104.	45.	36.	0.39	1299.43	12.20
ROUTED TO	201	404.	12.20	104.	45.	36.	0.39	1294.43	12.20
2 COMBINED AT	R16A	1141.	12.20	222.	82.	66.	0.71		
ROUTED TO	R16A	1088.	12.30	222.	82.	66.	0.71	1285.21	12.30
HYDROGRAPH AT	S2AB	443.	12.20	74.	23.	19.	0.20		
2 COMBINED AT	Node75	1490.	12.30	295.	105.	84.	0.91		
ROUTED TO	R15	1355.	12.40	295.	105.	84.	0.91		
HYDROGRAPH AT	S2AA	366.	12.30	69.	21.	17.	0.20		
2 COMBINED AT	56THB	1682.	12.40	363.	126.	101.	1.11		
ROUTED TO	R14C	1629.	12.40	363.	126.	101.	1.11		
HYDROGRAPH AT	S2Z	287.	12.10	43.	14.	11.	0.11		
ROUTED TO	91	268.	12.20	43.	14.	11.	0.11	1280.19	12.20
2 COMBINED AT	Node64	1819.	12.40	406.	140.	112.	1.22		
ROUTED TO	R14B	1817.	12.40	406.	140.	112.	1.22		
HYDROGRAPH AT	S2Y	560.	12.30	107.	34.	27.	0.27		
ROUTED TO	90	488.	12.40	107.	34.	27.	0.27	1291.18	12.40
ROUTED TO	R25	480.	12.50	107.	34.	27.	0.27	2.66	12.50
ROUTED TO	CLV310	467.	12.60	107.	34.	27.	0.27	1266.29	12.60
HYDROGRAPH AT	S2X	186.	12.30	35.	11.	9.	0.09		
3 COMBINED AT	Node62	2338.	12.50	547.	184.	148.	1.58		
ROUTED TO	R14A	2337.	12.50	547.	184.	148.	1.58		
HYDROGRAPH AT	S2W	317.	12.30	60.	19.	15.	0.16		
2 COMBINED AT	Node57	2580.	12.50	607.	203.	163.	1.74		
ROUTED TO	R13	2568.	12.50	607.	203.	163.	1.74	108.47	12.50
HYDROGRAPH AT	S2V	677.	12.00	79.	25.	20.	0.21		
2 COMBINED AT	Node54	2688.	12.50	685.	228.	183.	1.95		
ROUTED TO	R12	2636.	12.60	685.	228.	183.	1.95	108.18	12.60
HYDROGRAPH AT	S2S	572.	12.10	76.	24.	19.	0.22		
ROUTED TO	R24B	549.	12.10	76.	24.	19.	0.22	1279.75	12.10
HYDROGRAPH AT	S2R	526.	12.10	74.	23.	18.	0.21		
2 COMBINED AT	REBEL	1075.	12.10	150.	47.	37.	0.43		
ROUTED TO	56THA	1042.	12.10	150.	47.	37.	0.43	1293.46	12.10
ROUTED TO	93	830.	12.30	150.	47.	37.	0.43	1281.10	12.30
ROUTED TO	S53RD	646.	12.50	150.	47.	37.	0.43	1271.48	12.50
ROUTED TO	R23A	643.	12.50	150.	47.	37.	0.43	1270.53	12.50
HYDROGRAPH AT	S2Q	340.	12.10	52.	16.	13.	0.14		

2 COMBINED AT	Node95	813.	12.30	202.	63.	50.	0.57	
ROUTED TO	R22	806.	12.40	201.	63.	50.	0.57	
HYDROGRAPH AT	S2P	341.	12.20	62.	19.	15.	0.19	
2 COMBINED AT	Node92	1136.	12.30	263.	82.	66.	0.76	
ROUTED TO	R21	814.	12.70	259.	82.	66.	0.76	
HYDROGRAPH AT	S2U	366.	12.10	50.	16.	13.	0.12	
HYDROGRAPH AT	S2O	755.	12.10	111.	35.	28.	0.27	
4 COMBINED AT	40THB	3760.	12.50	1100.	361.	290.	3.10	
ROUTED TO	R11	3745.	12.50	1100.	361.	290.	3.10	109.77 12.50
HYDROGRAPH AT	S2T	1175.	12.10	160.	51.	41.	0.36	
ROUTED TO	R20	1060.	12.20	160.	51.	41.	0.36	
2 COMBINED AT	Node44	4288.	12.50	1257.	412.	331.	3.46	
ROUTED TO	R10	4232.	12.50	1256.	412.	331.	3.46	110.33 12.50
HYDROGRAPH AT	S2M2	406.	12.30	77.	24.	19.	0.23	
ROUTED TO	S2MDAM	61.	13.40	51.	31.	29.	0.23	3.06 13.50
ROUTED TO	R19B	61.	13.60	51.	31.	28.	0.23	1254.88 13.60
HYDROGRAPH AT	S2M1	371.	12.10	55.	17.	14.	0.16	
HYDROGRAPH AT	S2N	280.	12.30	55.	17.	14.	0.16	
3 COMBINED AT	YANKB	639.	12.20	157.	65.	56.	0.55	
ROUTED TO	191	551.	12.30	157.	65.	56.	0.55	1255.16 12.30
ROUTED TO	R19A	526.	12.50	157.	65.	56.	0.55	1245.18 12.50
HYDROGRAPH AT	S2L	712.	12.00	78.	25.	20.	0.17	
2 COMBINED AT	40THA	929.	12.00	232.	90.	76.	0.72	
ROUTED TO	83	871.	12.10	232.	90.	76.	0.72	1242.40 12.10
ROUTED TO	R18B	786.	12.20	232.	90.	76.	0.72	1238.21 12.20
HYDROGRAPH AT	S2K	1012.	12.10	138.	44.	35.	0.31	
2 COMBINED AT	Node31	1741.	12.10	368.	134.	111.	1.03	
ROUTED TO	R18A	1587.	12.20	368.	134.	111.	1.03	1227.62 12.20
HYDROGRAPH AT	S2J	639.	12.20	107.	35.	28.	0.23	
2 COMBINED AT	Node28	2225.	12.20	474.	169.	139.	1.26	
ROUTED TO	DAMR17	78.	22.70	78.	62.	50.	1.26	1229.40 22.70
2 COMBINED AT	Node25	4304.	12.50	1330.	474.	380.	4.72	
ROUTED TO	R9	4294.	12.60	1330.	473.	380.	4.72	111.08 12.60
HYDROGRAPH AT	S2H	815.	12.00	89.	28.	23.	0.20	
HYDROGRAPH AT	S2I1	439.	12.00	49.	16.	13.	0.11	
HYDROGRAPH AT	S2I2	536.	12.20	92.	29.	23.	0.22	
4 COMBINED AT	Node21	4851.	12.30	1553.	546.	439.	5.25	
ROUTED TO	R8	4837.	12.40	1553.	546.	438.	5.25	116.22 12.40
HYDROGRAPH AT	S2G	334.	12.00	41.	13.	10.	0.09	
2 COMBINED AT	ROKEBY	4919.	12.40	1592.	559.	449.	5.34	
ROUTED TO	R7C	4920.	12.40	1592.	559.	449.	5.34	112.64 12.40
HYDROGRAPH AT	S2F2	679.	12.00	80.	26.	21.	0.18	
2 COMBINED AT	Node15	5071.	12.40	1669.	584.	469.	5.52	
ROUTED TO	R7B	5068.	12.40	1669.	584.	469.	5.52	112.77 12.40
HYDROGRAPH AT	S2E	850.	12.10	113.	36.	29.	0.25	
ROUTED TO	S2EDAM	493.	12.30	91.	36.	29.	0.25	1224.35 12.30
HYDROGRAPH AT	S2F1	554.	12.00	61.	19.	16.	0.15	
3 COMBINED AT	Node11	5572.	12.40	1820.	639.	514.	5.92	
ROUTED TO	R7A	5553.	12.40	1819.	639.	513.	5.92	113.22 12.40
2 COMBINED AT	27THB	5575.	12.40	1839.	647.	519.	5.99	
ROUTED TO	R6B	5539.	12.50	1839.	646.	519.	5.99	117.95 12.50
HYDROGRAPH AT	S5A	563.	12.20	91.	29.	23.	0.22	
ROUTED TO	PondS5	529.	12.30	80.	29.	23.	0.22	1269.39 12.30

ROUTED TO	R33	370.	12.40	80.	29.	23.	0.22	1199.95 12.40
HYDROGRAPH AT	S5B	936.	12.20	149.	47.	38.	0.37	
2 COMBINED AT	S5up	1053.	12.30	228.	76.	61.	0.59	
ROUTED TO	PS5B	98.	14.70	97.	62.	49.	0.59	1241.51 14.70
ROUTED TO	R32	98.	14.90	97.	61.	49.	0.59	1197.96 14.70
HYDROGRAPH AT	S5C	739.	12.10	98.	31.	25.	0.23	
2 COMBINED AT	S38th	765.	12.10	179.	92.	74.	0.82	
ROUTED TO	R31	550.	12.20	177.	92.	74.	0.82	1201.10 12.20
HYDROGRAPH AT	S5E	613.	12.00	77.	24.	20.	0.18	
ROUTED TO	S38thS	393.	12.20	77.	24.	20.	0.18	1223.02 12.20
ROUTED TO	R34	170.	12.70	66.	23.	18.	0.18	1203.55 12.70
HYDROGRAPH AT	S5F	997.	12.00	113.	36.	29.	0.28	
HYDROGRAPH AT	S5G	582.	12.00	62.	20.	16.	0.15	
4 COMBINED AT	RRjctn	1940.	12.00	409.	169.	136.	1.43	
HYDROGRAPH AT	S5D	1313.	12.00	146.	46.	37.	0.34	
2 COMBINED AT	Saltil	3253.	12.00	550.	215.	173.	1.77	
HYDROGRAPH AT	S2B1	426.	12.00	52.	16.	13.	0.14	
3 COMBINED AT	BNSFB	6749.	12.40	2439.	878.	705.	7.90	
ROUTED TO	R6A	6736.	12.40	2439.	878.	705.	7.90	
HYDROGRAPH AT	S1G	666.	12.10	90.	29.	24.	0.19	
HYDROGRAPH AT	S1F	321.	12.30	68.	22.	18.	0.14	
2 COMBINED AT	Node12	900.	12.10	158.	52.	42.	0.33	
ROUTED TO	R5	843.	12.20	158.	52.	42.	0.33	
HYDROGRAPH AT	S1E	493.	12.10	77.	25.	20.	0.17	
ROUTED TO	27THA	151.	12.60	74.	24.	19.	0.17	
ROUTED TO	R3	141.	13.40	74.	24.	19.	0.17	
HYDROGRAPH AT	S1D	673.	12.10	96.	31.	25.	0.20	
3 COMBINED AT	Node11	1506.	12.10	323.	107.	86.	0.70	
ROUTED TO	D37	1199.	12.30	323.	107.	86.	0.70	1210.72 12.30
ROUTED TO	R2	1132.	12.40	323.	107.	86.	0.70	
HYDROGRAPH AT	S1C	427.	12.20	80.	25.	20.	0.19	
ROUTED TO	PONDN	416.	12.30	79.	25.	20.	0.19	112.15 12.30
HYDROGRAPH AT	S1B	258.	12.10	35.	11.	9.	0.11	
2 COMBINED AT	Node14	590.	12.20	114.	36.	29.	0.30	
ROUTED TO	R4	574.	12.30	114.	36.	29.	0.30	
ROUTED TO	PONDK	506.	12.50	112.	36.	29.	0.30	94.34 12.50
2 COMBINED AT	Node10	1637.	12.50	434.	143.	115.	1.00	
ROUTED TO	R1B	1590.	12.60	434.	143.	115.	1.00	
HYDROGRAPH AT	S1A3	339.	12.20	60.	19.	15.	0.17	
2 COMBINED AT	Node9	1808.	12.50	494.	162.	130.	1.17	
DIVERSION TO	BNDitc	976.	12.50	223.	69.	56.	1.17	
HYDROGRAPH AT	Node9A	832.	12.50	270.	92.	74.	1.17	
ROUTED TO	R1A	828.	12.50	270.	92.	74.	1.17	1179.89 12.50
HYDROGRAPH AT	S1A1	638.	12.00	80.	25.	20.	0.29	
2 COMBINED AT	14TH	1106.	12.10	350.	117.	94.	1.46	
HYDROGRAPH AT	S1A4	165.	12.10	23.	7.	6.	0.06	
HYDROGRAPH AT	BNDitc	976.	12.50	223.	69.	56.	0.00	
2 COMBINED AT	Yankee	1027.	12.50	246.	76.	61.	0.06	
HYDROGRAPH AT	S2B2	142.	12.20	23.	7.	6.	0.07	
ROUTED TO	det-u	127.	12.30	23.	7.	6.	0.07	104.03 12.30
HYDROGRAPH AT	S2A	509.	12.00	64.	20.	16.	0.24	
HYDROGRAPH AT	S2C	1381.	12.00	150.	48.	38.	0.35	
6 COMBINED AT	NULLB	9253.	12.40	3267.	1144.	920.	10.08	

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

500-year Storm for Built-out Projected Conditions

500 YEAR

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	S2B3	198.	12.20	34.	11.	9.	0.07		
ROUTED TO	PONDA	192.	12.30	34.	11.	9.	0.07	122.11	12.30
ROUTED TO	R6C	40.	13.10	28.	11.	9.	0.07		
HYDROGRAPH AT	S2AD	669.	12.10	87.	28.	22.	0.17		
ROUTED TO	202	684.	12.10	87.	28.	22.	0.17	1326.59	12.10
ROUTED TO	66TH	720.	12.10	87.	28.	22.	0.17	1319.14	12.10
ROUTED TO	R16C	623.	12.20	87.	28.	22.	0.17	1343.84	12.20
HYDROGRAPH AT	S2AC	511.	12.10	69.	22.	17.	0.15		
2 COMBINED AT	Node84	1046.	12.20	156.	49.	39.	0.32		
ROUTED TO	R16B	1052.	12.20	156.	49.	39.	0.32	1290.15	12.20
HYDROGRAPH AT	S2AF	597.	12.20	107.	34.	27.	0.22		
ROUTED TO	Ps2af	57.	13.80	47.	34.	27.	0.22	1330.08	13.80
HYDROGRAPH AT	S2AE	488.	12.20	81.	25.	20.	0.17		
2 COMBINED AT	Node19	531.	12.20	126.	59.	47.	0.39		
ROUTED TO	R26A	531.	12.20	126.	59.	47.	0.39	1299.86	12.20
ROUTED TO	201	536.	12.20	126.	59.	47.	0.39	1294.68	12.20
2 COMBINED AT	R16A	1587.	12.20	282.	108.	87.	0.71		
ROUTED TO	R16A	1479.	12.30	282.	108.	87.	0.71	1285.48	12.30
HYDROGRAPH AT	S2AB	585.	12.20	97.	31.	25.	0.20		
2 COMBINED AT	Node75	2023.	12.20	379.	139.	112.	0.91		
ROUTED TO	R15	1738.	12.40	378.	139.	112.	0.91		
HYDROGRAPH AT	S2AA	490.	12.30	92.	29.	23.	0.20		
2 COMBINED AT	56THB	2194.	12.30	470.	168.	135.	1.11		
ROUTED TO	R14C	2148.	12.40	470.	168.	135.	1.11		
HYDROGRAPH AT	S2Z	374.	12.10	57.	18.	14.	0.11		
ROUTED TO	91	323.	12.20	57.	18.	14.	0.11	1281.25	12.20
2 COMBINED AT	Node64	2434.	12.40	526.	186.	149.	1.22		
ROUTED TO	R14B	2428.	12.40	526.	186.	149.	1.22		
HYDROGRAPH AT	S2Y	728.	12.30	139.	44.	35.	0.27		
ROUTED TO	90	609.	12.40	139.	44.	35.	0.27	1293.22	12.40
ROUTED TO	R25	598.	12.50	139.	44.	35.	0.27	2.96	12.50
ROUTED TO	CLV310	602.	12.50	139.	44.	35.	0.27	1266.46	12.50
HYDROGRAPH AT	S2X	243.	12.20	45.	14.	12.	0.09		
3 COMBINED AT	Node62	3132.	12.40	710.	244.	196.	1.58		
ROUTED TO	R14A	3146.	12.50	709.	244.	196.	1.58		
HYDROGRAPH AT	S2W	417.	12.30	79.	25.	20.	0.16		
2 COMBINED AT	Node57	3462.	12.50	788.	269.	216.	1.74		
ROUTED TO	R13	3469.	12.50	788.	269.	216.	1.74	109.67	12.50
HYDROGRAPH AT	S2V	889.	12.00	104.	33.	26.	0.21		
2 COMBINED AT	Node54	3622.	12.50	891.	302.	242.	1.95		
ROUTED TO	R12	3572.	12.50	891.	301.	242.	1.95	109.36	12.50
HYDROGRAPH AT	S2S	764.	12.10	101.	32.	25.	0.22		
ROUTED TO	R24B	740.	12.10	101.	32.	25.	0.22	1280.18	12.10
HYDROGRAPH AT	S2R	701.	12.10	98.	31.	25.	0.21		
2 COMBINED AT	REBEL	1441.	12.10	200.	62.	50.	0.43		
ROUTED TO	56THA	1376.	12.20	200.	62.	50.	0.43	1293.88	12.20
ROUTED TO	93	1013.	12.30	200.	62.	50.	0.43	1283.02	12.30
ROUTED TO	S53RD	839.	12.60	200.	62.	50.	0.43	1272.48	12.60
ROUTED TO	R23A	837.	12.60	200.	62.	50.	0.43	1271.05	12.60
HYDROGRAPH AT	S2Q	450.	12.10	68.	21.	17.	0.14		

2 COMBINED AT	Node95	991.	12.50	268.	84.	67.	0.57		
ROUTED TO	R22	985.	12.50	267.	84.	67.	0.57		
HYDROGRAPH AT	S2P	464.	12.20	84.	26.	21.	0.19		
2 COMBINED AT	Node92	1430.	12.30	351.	110.	88.	0.76		
ROUTED TO	R21	1089.	12.70	346.	110.	88.	0.76		
HYDROGRAPH AT	S2U	469.	12.10	65.	21.	17.	0.12		
HYDROGRAPH AT	S2O	973.	12.10	143.	46.	37.	0.27		
4 COMBINED AT	40THB	5066.	12.50	1440.	477.	384.	3.10		
ROUTED TO	R11	5053.	12.50	1439.	477.	383.	3.10	111.16	12.50
HYDROGRAPH AT	S2T	1486.	12.10	203.	65.	53.	0.36		
ROUTED TO	R20	1345.	12.20	203.	65.	53.	0.36		
2 COMBINED AT	Node44	5622.	12.50	1639.	542.	436.	3.46		
ROUTED TO	R10	5589.	12.50	1638.	542.	436.	3.46	111.70	12.50
HYDROGRAPH AT	S2M2	547.	12.30	103.	32.	26.	0.23		
ROUTED TO	S2MDAM	96.	13.30	69.	37.	34.	0.23	4.08	13.30
ROUTED TO	R19B	95.	13.40	68.	37.	34.	0.23	1255.06	13.40
HYDROGRAPH AT	S2M1	498.	12.10	74.	23.	18.	0.16		
HYDROGRAPH AT	S2N	375.	12.30	73.	23.	18.	0.16		
3 COMBINED AT	YANKB	852.	12.20	209.	83.	71.	0.55		
ROUTED TO	191	663.	12.40	209.	83.	71.	0.55	1256.59	12.40
ROUTED TO	R19A	652.	12.50	209.	83.	70.	0.55	1245.35	12.50
HYDROGRAPH AT	S2L	892.	12.00	98.	32.	26.	0.17		
2 COMBINED AT	40THA	1166.	12.00	303.	115.	96.	0.72		
ROUTED TO	83	1132.	12.10	303.	115.	96.	0.72	1242.62	12.10
ROUTED TO	R18B	1006.	12.20	303.	115.	96.	0.72	1238.61	12.20
HYDROGRAPH AT	S2K	1279.	12.10	175.	56.	45.	0.31		
2 COMBINED AT	Node31	2272.	12.10	475.	172.	141.	1.03		
ROUTED TO	R18A	2058.	12.20	475.	171.	141.	1.03	1227.91	12.20
HYDROGRAPH AT	S2J	799.	12.20	135.	44.	35.	0.23		
2 COMBINED AT	Node28	2857.	12.20	608.	216.	176.	1.26		
ROUTED TO	DAMR17	159.	17.80	153.	94.	76.	1.26	1230.24	17.80
2 COMBINED AT	Node25	5662.	12.50	1747.	637.	512.	4.72		
ROUTED TO	R9	5647.	12.50	1747.	636.	511.	4.72	112.34	12.50
HYDROGRAPH AT	S2H	1028.	12.00	113.	36.	29.	0.20		
HYDROGRAPH AT	S2I1	554.	12.00	62.	20.	16.	0.11		
HYDROGRAPH AT	S2I2	687.	12.20	119.	38.	30.	0.22		
4 COMBINED AT	Node21	6528.	12.30	2031.	730.	587.	5.25		
ROUTED TO	R8	6475.	12.40	2031.	729.	586.	5.25	117.87	12.40
HYDROGRAPH AT	S2G	421.	12.00	51.	17.	13.	0.09		
2 COMBINED AT	ROKEBY	6576.	12.40	2080.	746.	600.	5.34		
ROUTED TO	R7C	6592.	12.40	2080.	746.	600.	5.34	113.96	12.40
HYDROGRAPH AT	S2F2	858.	12.00	101.	33.	26.	0.18		
2 COMBINED AT	Node15	6782.	12.40	2178.	778.	626.	5.52		
ROUTED TO	R7B	6803.	12.40	2178.	778.	626.	5.52	114.10	12.40
HYDROGRAPH AT	S2E	1069.	12.10	143.	46.	37.	0.25		
ROUTED TO	S2EDAM	814.	12.20	122.	46.	37.	0.25	1224.71	12.20
HYDROGRAPH AT	S2F1	709.	12.00	79.	25.	20.	0.15		
3 COMBINED AT	Node11	7591.	12.30	2376.	849.	683.	5.92		
ROUTED TO	R7A	7530.	12.40	2376.	848.	682.	5.92	114.56	12.40
2 COMBINED AT	27THB	7560.	12.40	2402.	859.	690.	5.99		
ROUTED TO	R6B	7552.	12.40	2402.	858.	690.	5.99	119.98	12.40
HYDROGRAPH AT	S5A	724.	12.20	117.	37.	30.	0.22		
ROUTED TO	PondS5	735.	12.20	106.	37.	30.	0.22	1269.62	12.20

ROUTED TO	R33	573.	12.40	106.	37.	30.	0.22	1200.94 12.40
HYDROGRAPH AT	S5B	1210.	12.10	193.	61.	49.	0.37	
2 COMBINED AT	S5up	1542.	12.20	298.	99.	79.	0.59	
ROUTED TO	PS5B	197.	13.70	127.	78.	63.	0.59	1243.34 13.70
ROUTED TO	R32	193.	13.90	127.	77.	62.	0.59	1198.66 13.90
HYDROGRAPH AT	S5C	942.	12.10	126.	40.	32.	0.23	
2 COMBINED AT	S38th	978.	12.10	236.	118.	95.	0.82	
ROUTED TO	R31	718.	12.20	235.	116.	94.	0.82	1201.63 12.20
HYDROGRAPH AT	S5E	783.	12.00	99.	32.	25.	0.18	
ROUTED TO	S38thS	435.	12.20	99.	32.	25.	0.18	1224.45 12.20
ROUTED TO	R34	238.	12.80	88.	30.	24.	0.18	1204.37 12.80
HYDROGRAPH AT	S5F	1288.	12.00	146.	46.	37.	0.28	
HYDROGRAPH AT	S5G	745.	12.00	80.	25.	20.	0.15	
4 COMBINED AT	RRjctn	2522.	12.00	539.	218.	175.	1.43	
HYDROGRAPH AT	S5D	1672.	12.00	186.	60.	48.	0.34	
2 COMBINED AT	Saltil	4195.	12.00	720.	277.	223.	1.77	
HYDROGRAPH AT	S2B1	562.	12.00	68.	21.	17.	0.14	
3 COMBINED AT	BNSFB	9349.	12.30	3187.	1157.	930.	7.90	
ROUTED TO	R6A	9330.	12.30	3187.	1157.	930.	7.90	
HYDROGRAPH AT	S1G	829.	12.10	112.	37.	30.	0.19	
HYDROGRAPH AT	S1F	398.	12.30	84.	28.	23.	0.14	
2 COMBINED AT	Node12	1120.	12.10	197.	65.	52.	0.33	
ROUTED TO	R5	1045.	12.20	197.	65.	52.	0.33	
HYDROGRAPH AT	S1E	622.	12.10	97.	31.	25.	0.17	
ROUTED TO	27THA	165.	12.70	94.	31.	25.	0.17	
ROUTED TO	R3	153.	13.50	94.	31.	25.	0.17	
HYDROGRAPH AT	S1D	837.	12.10	120.	40.	32.	0.20	
3 COMBINED AT	Node11	1881.	12.10	405.	135.	109.	0.70	
ROUTED TO	D37	1508.	12.30	405.	135.	109.	0.70	1212.03 12.30
ROUTED TO	R2	1431.	12.40	405.	135.	109.	0.70	
HYDROGRAPH AT	S1C	549.	12.20	102.	33.	26.	0.19	
ROUTED TO	PONDN	535.	12.30	102.	33.	26.	0.19	112.43 12.30
HYDROGRAPH AT	S1B	351.	12.10	47.	15.	12.	0.11	
2 COMBINED AT	Node14	775.	12.20	150.	47.	38.	0.30	
ROUTED TO	R4	742.	12.30	149.	47.	38.	0.30	
ROUTED TO	PONDK	680.	12.40	148.	47.	38.	0.30	94.74 12.40
2 COMBINED AT	Node10	2111.	12.40	551.	182.	147.	1.00	
ROUTED TO	R1B	2019.	12.60	551.	182.	147.	1.00	
HYDROGRAPH AT	S1A3	453.	12.20	80.	25.	20.	0.17	
2 COMBINED AT	Node9	2302.	12.50	631.	207.	167.	1.17	
DIVERSION TO	BNDitc	1285.	12.50	297.	92.	74.	1.17	
HYDROGRAPH AT	Node9A	1017.	12.50	333.	115.	93.	1.17	
ROUTED TO	R1A	1002.	12.60	333.	115.	93.	1.17	1180.30 12.60
HYDROGRAPH AT	S1A1	902.	12.00	111.	34.	28.	0.29	
2 COMBINED AT	14TH	1487.	12.10	444.	150.	120.	1.46	
HYDROGRAPH AT	S1A4	217.	12.10	30.	9.	8.	0.06	
HYDROGRAPH AT	BNDitc	1285.	12.50	297.	92.	74.	0.00	
2 COMBINED AT	Yankee	1351.	12.50	327.	101.	81.	0.06	
HYDROGRAPH AT	S2B2	192.	12.20	32.	10.	8.	0.07	
ROUTED TO	det-u	175.	12.30	31.	10.	8.	0.07	104.36 12.30
HYDROGRAPH AT	S2A	725.	12.00	90.	28.	22.	0.24	
HYDROGRAPH AT	S2C	1757.	12.00	192.	61.	49.	0.35	
6 COMBINED AT	NULLB	12862.	12.20	4264.	1505.	1211.	10.08	

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

LLCCP
Projected Conditions
Input File

```
HEC1 S/N: 1343001909        HMVersion: 6.33    Data File: C:\WINDOWS\TEMP\~vbh0644.TMP
```

```
*************************************
*                                   *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*                MAY   1991           *
*             VERSION 4.0.1E          *
*                                   *
*  RUN DATE  12/30/2003  TIME  17:02:36 *
*                                   *
*************************************
```

```
*************************************
*                                   *
*    U.S. ARMY CORPS OF ENGINEERS     *
*    HYDROLOGIC ENGINEERING CENTER    *
*         609 SECOND STREET           *
*       DAVIS, CALIFORNIA 95616       *
*           (916) 756-1104            *
*                                   *
*************************************
```

```
     X     X  XXXXXXX   XXXXX          X
     X     X  X        X     X        XX
     X     X  X        X              X
     XXXXXXX  XXXX     X        XXXXX  X
     X     X  X        X              X
     X     X  X        X     X        X
     X     X  XXXXXXX   XXXXX         XXX
```

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::::::::::::::::::::::::::::::::::::::::::::
::::::::::::::::::::::::::::::::::::::::::::
:::                                      :::
:::  Full Microcomputer Implementation  :::
:::                 by                   :::
:::        Haestad Methods, Inc.         :::
:::                                      :::
::::::::::::::::::::::::::::::::::::::::::::
::::::::::::::::::::::::::::::::::::::::::::
```

```
37 Brookside Road * Waterbury, Connecticut  06708 * (203) 755-1666
```

```
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
```

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

HEC-1 INPUT PAGE 1

```
LINE          ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
    1         ID  1-year Projected Conditions Urban Planning Zones S-1, S-2, S-3, and S-5
    2         IT       6                    300
    3         IO       0       0

    4         KK  S2B3
    5         KM  S2B1
    6         KO                                      22
    7         BA    0.07
    8         PB    2.48
    9         IN       6
   10         PC  0.0000 0.00101 0.00202 0.00305 0.00408 0.00513 0.00618 0.00725 0.00832 0.00941
   11         PC  0.0105 0.01161 0.01272 0.01385 0.01498 0.01613 0.01728 0.01845 0.01962 0.02081
   12         PC  0.0220 0.02321 0.02442 0.02565 0.02688 0.02813 0.02938 0.03065 0.03192 0.03321
   13         PC  0.0345 0.03581 0.03712 0.03845 0.03978 0.04113 0.04248 0.04385 0.04522 0.04661
   14         PC  0.0480 0.04941 0.05084 0.05229 0.05376 0.05525 0.05676 0.05829 0.05984 0.06141
   15         PC  0.0630 0.06461 0.06624 0.06789 0.06956 0.07125 0.07296 0.07469 0.07644 0.07821
   16         PC  0.0800 0.08181 0.08364 0.08549 0.08736 0.08925 0.09116 0.09309 0.09504 0.09701
   17         PC  0.0990 0.10101 0.10304 0.10509 0.10716 0.10925 0.11136 0.11349 0.11564 0.11781
   18         PC  0.1200 0.12225 0.12460 0.12705 0.12960 0.13225 0.13500 0.13785 0.14080 0.14385
   19         PC  0.1470 0.15020 0.15340 0.15660 0.15980 0.16300 0.16628 0.16972 0.17332 0.17708
   20         PC  0.1810 0.18512 0.18948 0.19408 0.19892 0.20400 0.20940 0.21520 0.22140 0.22800
   21         PC  0.2350 0.24268 0.25132 0.26092 0.27148 0.28300 0.30684 0.35436 0.43079 0.56786
   22         PC  0.6630 0.68196 0.69864 0.71304 0.72516 0.73500 0.74344 0.75136 0.75876 0.76564
   23         PC  0.7720 0.77796 0.78364 0.78904 0.79416 0.79900 0.80360 0.80800 0.81220 0.81620
   24         PC  0.8200 0.82367 0.82726 0.83079 0.83424 0.83763 0.84094 0.84419 0.84736 0.85047
   25         PC  0.8535 0.85647 0.85936 0.86219 0.86494 0.86763 0.87024 0.87279 0.87526 0.87767
   26         PC  0.8800 0.88229 0.88455 0.88679 0.88900 0.89119 0.89335 0.89549 0.89760 0.89969
   27         PC  0.9018 0.90379 0.90580 0.90779 0.90975 0.91169 0.91360 0.91549 0.91735 0.91919
   28         PC  0.9210 0.92279 0.92455 0.92629 0.92800 0.92969 0.93135 0.93299 0.93460 0.93619
   29         PC  0.9377 0.93929 0.94080 0.94229 0.94375 0.94519 0.94660 0.94799 0.94935 0.95069
   30         PC  0.9520 0.95330 0.95459 0.95588 0.95716 0.95844 0.95971 0.96098 0.96224 0.96350
   31         PC  0.9647 0.96600 0.96724 0.96848 0.96971 0.97094 0.97216 0.97338 0.97459 0.97580
   32         PC  0.9770 0.97820 0.97939 0.98058 0.98176 0.98294 0.98411 0.98528 0.98644 0.98760
   33         PC  0.9887 0.98990 0.99104 0.99218 0.99331 0.99444 0.99556 0.99668 0.99779 0.99890
   34         PC  1.0000 1.00000 1.00000 1.00000 1.00000
   35         LS            79
   36         UD    0.34

   37         KK  PONDA
   38         KM  Ponda
   39         KO                                      22
   40         RS       1    ELEV     118
   41         SV    1.18    1.34    2.00
   42         SE     118     120     122
   43         SQ       0     6.9    19.5    27.8    32.1    52.8    87.3     131     181
   44         SE     118   118.5     119   119.5     120   120.5     121   121.5     122

   45         KK  R6C
   46         KM  R6C
   47         KO                                      22
   48         RS       1    STOR       0
   49         SV       0      10      20      30      40      50
   50         SQ       0      40      90     130     170     210
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HEC-1 INPUT PAGE 2

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

   51         KK  S2AD
   52         KM  S2AD
   53         KO                                      22
   54         BA    0.17
   55         LS              85
   56         UD    0.20

   57         KK  202
   58         KM  ROUTE FLOW FROM REACH R16C THROUGH STRUCTURE 202
   59         KO                                      22
   60         RS       1    ELEV 1319.30
   61         SA       0    .001    .002   .1240   .2916   .5918  1.1389
   62         SE  1319.3    1320    1322    1324    1326    1328    1330
   63         SQ       0     129     177     266     341     408     470     537     687     858
   64         SE  1319.3 1324.68 1325.46 1325.91 1326.12 1326.23 1326.36 1326.43 1326.59 1326.80

   65         KK  66TH
   66         KM  ROUTE FLOW FROM REACH R16C THROUGH STRUCTURE 66TH
   67         KO                                      22
   68         RS       1    ELEV    1308
   69         SA       0    .053   .1421   .3198   .5513   .9141  1.3959
   70         SE    1308    1310    1312    1314    1316    1318    1320
   71         SQ       0      92     128     222     279     323     376     465     605     756
   72         SE    1308 1312.17 1313.02    1315 1317.05 1318.08 1318.33 1318.56 1318.93 1319.21

   73         KK  R16C
```

```
 74          KM  R16C
 75          KO                                      22
 76          RS       1    STOR       0
 77          RC    .035     .06    .035    1328 .010676    1346
 78          RX   325.9   368.3   377.5     384   384.1   403.4   439.4   488.1
 79          RY  1344.3  1342.5  1341.8  1341.2  1341.2  1341.6    1344    1346

 80          KK  S2AC
 81          KM  S2AC
 82          KO                                      22
 83          BA    0.15
 84          LS               77
 85          UD    0.23

 86          KK  Node84
 87          KM
 88          KO                                      22
 89          HC       2

 90          KK  R16B
 91          KM  R16B
 92          KO                                      22
 93          RS       1    STOR       0
 94          RC    .035     .06    .035     570 .006024    1292
 95          RX     347   434.8   468.1   544.9  544.91   551.6   618.7   672.2
 96          RY  1291.5    1290  1287.9  1287.8  1287.8    1288    1290    1292

                                    HEC-1 INPUT                                          PAGE  3
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 97          KK  S2AF
 98          KM  S2AF
 99          KO                                      22
100          BA    0.22
101          LS               83
102          UD    0.39

103          KK  R26B
104          KM  R26B
105          KO                                      22
106          RS       1    STOR       0
107          RC     .04     .06    .035     906 .011906  1309.4
108          RX   221.3   243.2   276.2   293.3     301   317.8   334.6   349.1
109          RY    1308    1306  1303.9  1301.7  1301.7    1304    1308  1309.4

110          KK  S2AE
111          KM  S2AE
112          KO                                      22
113          BA    0.17
114          LS               81
115          UD    0.35

116          KK  Node19
117          KM
118          KO                                      22
119          HC       2

120          KK  R26A
121          KM  R26A
122          KO                                      22
123          RS       1    STOR       0
124          RC    .035     .06    .035     230 .008776  1303.5
125          RX     219     247   251.1   256.9   260.2   268.3   297.7   376.1
126          RY  1303.5    1300    1298  1293.8  1293.8    1298  1300.2  1301.2

127          KK  201
128          KM  ROUTE FLOW FROM R26A THROUGH STRUCUTRE 201
129          KO                                      22
130          RS       1    ELEV  1286.7
131          SA       0    .001    .009     .01    .0185   .3025  1.0626
132          SE  1286.7    1287    1288    1290    1292    1294    1296
133          SQ       0     167     241     383     504     613     716     826    1074    1342
134          SE  1286.7 1291.69 1293.42 1294.39 1294.63  1294.8 1294.93 1295.08 1295.37 1295.59

135          KK  R16A
136          KM  R16A
137          KO                                      22
138          HC       2

                                    HEC-1 INPUT                                          PAGE  4
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

139          KK  R16A
140          KM  R16A
141          KO                                      22
142          RS       1    STOR       0
143          RC      .1     .06      .1    1055 .013944    1290
144          RX   255.8   302.4   393.4   470.5   479.6     545   597.3   685.5
145          RY    1290  1284.1    1284  1283.5  1283.5    1284  1285.6  1287.5

146          KK  S2AB
147          KM  S2AB
148          KO                                      22
149          BA    0.20
150          LS               79
151          UD    0.32

152          KK  Node75
153          KM
154          KO                                      22
155          HC       2

156          KK  R15
157          KM  R15
158          KO                                      22
159          RS       1    STOR       0
160          SV       0     4.5     6.2     9.4    12.4    15.0    17.7    25.6    31.1
161          SQ       0     354     523     840    1130    1379    1639    1924    2579

162          KK  S2AA
163          KM  S2AA
164          KO                                      22
165          BA    0.20
166          LS               75
167          UD    0.43

168          KK  56THB
169          KM  56THB
170          KO                                      22
171          HC       2

172          KK  R14C
173          KM  R14C
174          KO                                      22
175          RS       1    STOR       0
176          SV       0     2.7     3.7     6.9     9.5    11.1    12.4    13.8    18.5
177          SQ       0     356     545     893    1200    1473    1691    1876    2705

178          KK  S2Z
179          KM  S2Z
180          KO                                      22
181          BA    0.11
182          LS               82
183          UD    0.26

                                    HEC-1 INPUT                                          PAGE  5
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

184          KK  91
185          KM  91 CBC
186          KO                                      22
187          RS       1    ELEV 1273.19
188          SA       0    0.01    .081    .169    .315   1.350
189          SE  1273.1    1274    1276    1278    1280    1282
190          SQ       0      15      30      45      50      75      90     105     120     135
191          SQ     150
192          SE  1273.1 1274.54 1274.78 1275.17 1275.32 1275.97 1276.49 1276.87 1277.23 1277.61
193          SE  1277.9

194          KK  Node64
195          KM
196          KO                                      22
197          HC       2

198          KK  R14B
199          KM  R14B
200          KO                                      22
201          RS       1    STOR       0
202          SV       0    0.69    1.00    1.52    1.95    2.30    2.56    2.83    3.57
203          SQ       0     364     562     898    1218    1525    1764    1982    2804

204          KK  S2Y
205          KM  S2Y
206          KO                                      22
207          BA    0.27
208          LS               82
209          UD    0.40

210          KK  90
211          KM  90 CBC
212          KO                                      22
213          RS       1    ELEV 1281.72
```

```
 214          SA       0     0.1    0.11    .130    .402    .843   1.724
 215          SE  1281.7    1282    1284    1286    1288    1290    1292
 216          SQ       0     0.1      40      50     120     160     200     240     280     320
 217          SQ     360     400
 218          SE  1281.7 1281.85 1283.81 1284.08 1285.52 1286.20 1286.82 1287.39 1287.92 1288.42
 219          SE  1289.0 1289.68

 220          KK  R25
 221          KM  R25
 222          KO                                  22
 223          RS       1    STOR       0
 224          RC     .04     .06     .04    1313 .010428      20
 225          RX       0     150     160     200     211     291     541     676
 226          RY      20       5       4       0       0       4     6.5      20

                                    HEC-1 INPUT                                                PAGE  6

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

 227          KK  CLV310
 228          KM  ROUTE FLOW FROM R25 THROUGH STRUCTURE CULV31
 229          KO                                  22
 230          RS       1    ELEV 1259.33
 231          SA       0    0.05   0.321   1.007   2.226
 232          SE  1259.3    1260    1262    1264    1266
 233          SQ       0     115     164     255     328     391     439     488     609     761
 234          SE  1259.3 1262.82 1263.61 1264.93 1265.96 1266.14 1266.21 1266.34 1266.47 1266.62

 235          KK  S2X
 236          KM  S2X
 237          KO                                  22
 238          BA    0.09
 239          LS              81
 240          UD    0.38

 241          KK  Node62
 242          KM
 243          KO                                  22
 244          HC       3

 245          KK  R14A
 246          KM  R14A
 247          KO                                  22
 248          RS       1    STOR       0
 249          SV       0     4.4     5.9     7.9     9.6    10.9    11.9    12.9    14.7    16.3
 250          SQ       0     484     735    1164    1559    1927    2277    2668    3545    4431

 251          KK  S2W
 252          KM  S2W
 253          KO                                  22
 254          BA    0.16
 255          LS              80
 256          UD    0.40

 257          KK  Node57
 258          KM
 259          KO                                  22
 260          HC       2

 261          KK  R13
 262          KM  R13
 263          KO                                  22
 264          RS       1    STOR       0
 265          RC   0.035   0.045   0.035    1590   0.006     132
 266          RX       0      60      90     126     141     177     207     267
 267          RY     132     113     112     100     100     112     113     132

 268          KK  S2V
 269          KM  S2V
 270          KO                                  22
 271          BA    0.21
 272          LS              77
 273          UD    0.25

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

 274          KK  Node54
 275          KM
 276          KO                                  22
 277          HC       2

 278          KK  R12
 279          KM  R12
 280          KO                                  22
 281          RS       1    STOR       0

 282          RC   0.035   0.045   0.035    2000  0.0073     132
 283          RX       0      60      90     126     141     177     207     267
 284          RY     132     113     112     100     100     112     113     132

 285          KK  S2S
 286          KM  S2S
 287          KO                                  22
 288          BA    0.22
 289          LS              76
 290          UD    0.20

 291          KK  R24B
 292          KM
 293          KO                                  22
 294          RS       1    STOR       0
 295          RC      .1     .035      .1     750 .014494    1282
 296          RX   420.1   449.7   490.2   495.6   495.7   501.6   526.7   565.3
 297          RY    1282  1280.4  1277.1  1276.6  1276.6  1277.1  1278.8    1282

 298          KK  S2R
 299          KM  S2R
 300          KO                                  22
 301          BA    0.21
 302          LS              77
 303          UD    0.23

 304          KK  REBEL
 305          KM  REBEL
 306          KO                                  22
 307          HC       2

 308          KK  56THA
 309          KM  ROUTE COMBINED FLOW 56THA THROUGH STRUCUTRE REBEL DRIVE
 310          KO                                  22
 311          RS       1    ELEV  1285.5
 312          SA       0   0.041   0.411   0.918   1.662   2.594
 313          SE  1285.5    1286    1288    1290    1292    1294
 314          SQ       0      75     122     218     304     383     459     543     733     916
 315          SQ     994    1346    1682
 316          SE  1285.5 1288.51 1289.51 1292.03 1292.35 1292.54 1292.68 1292.82 1293.14 1293.36
 317          SE  1293.4 1293.85 1294.20

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

 318          KK  93
 319          KM  ROUTE COMBINED FLOW FROM R24A THROUGH STRUCTURE 93
 320          KO                                  22
 321          RS       1    ELEV  1269.8
 322          SA       0    .007    .065    .160   .3134    .700   1.709   3.034   4.516  6.0979
 323          SE  1269.8    1270    1272    1274    1276    1278    1280    1282    1284    1286
 324          SQ       0     138     219     382     526     663     796     944    1282    1602
 325          SE  1269.8 1273.14 1274.37 1276.45 1278.04 1279.42 1280.67 1282.56 1284.78 1285.11

 326          KK  S53RD
 327          KM  ROUTE FLOW FROM R23B THROUGH STRUCTURE S53RD
 328          KO                                  22
 329          RS       1    ELEV    1262
 330          SA       0   0.033   0.354   1.415   2.476  4.3196  6.3545
 331          SE    1262    1264    1266    1268    1270    1272    1274
 332          SQ       0     138     219     382     526     663     796     944    1282    1602
 333          SE    1262 1265.33 1266.59 1268.67 1270.27 1271.65 1272.38 1272.74 1273.36 1273.76

 334          KK  R23A
 335          KM  ROUTE FLOW FROM S53RD THROUGH R23A
 336          KO                                  22
 337          RS       1    STOR       0
 338          RC      .1     .06      .1 250.326 .010531    1273
 339          RX     460   543.2   566.2   571.8   582.8   593.3   638.4     964
 340          RY    1273    1270    1270  1265.2  1265.2    1270    1272  1272.4

 341          KK  S2Q
 342          KM  S2Q
 343          KO                                  22
 344          BA    0.14
 345          LS              79
 346          UD    0.26

 347          KK  Node95
 348          KM
 349          KO                                  22
 350          HC       2

 351          KK  R22
 352          KM  R22
 353          KO                                  22
 354          RS       1    STOR       0
```

```
355          SV       0     4.1     4.5     5.2     5.8     6.3     6.7     7.1     7.8
356          SQ       0     166     235     374     518     630     721     805     971

357          KK  S2P
358          KM  S2P
359          KO                                    22
360          BA    0.19
361          LS              74
362          UD    0.36
```

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                                      HEC-1 INPUT                                    PAGE  9

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

363          KK  Node92
364          KM
365          KO                                    22
366          HC       2

367          KK  R21
368          KM  R21
369          KO                                    22
370          RS       1    STOR       0
371          SV       0    13.2    17.4    23.7    29.2    36.6    40.5    44.8    52.6    61.0
372          SQ       0     165     266     486     685     858     996    1136    1430    1786

373          KK  S2U
374          KM  S2U
375          KO                                    22
376          BA    0.12
377          LS              85
378          UD    0.22

379          KK  S2O
380          KM  S2O
381          KO                                    22
382          BA    0.27
383          LS              84
384          UD    0.25

385          KK  40THB
386          KM  40THB
387          KO                                    22
388          HC       4

389          KK  R11
390          KM  R11
391          KO                                    22
392          RS       1    STOR       0
393          RC   0.035   0.045   0.035     600  0.0067     132
394          RX       0      60      90     126     141     177     207     267
395          RY     132     113     112     100     100     112     113     132

396          KK  S2T
397          KM  S2T
398          KO                                    22
399          BA    0.36
400          LS              88
401          UD    0.21

402          KK  R20
403          KM  R20
404          KO                                    22
405          RS       1    STOR       0
406          SV       0     1.7     2.8     4.3     5.1     6.3     7.0     7.7     9.1    10.4
407          SQ       0     222     296     431     543     570     662     762     986    1232
```

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                                      HEC-1 INPUT                                    PAGE 10

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

408          KK  Node44
409          KM
410          KO                                    22
411          HC       2

412          KK  R10
413          KM  R10
414          KO                                    22
415          RS       1    STOR       0
416          RC   0.035   0.045   0.035    2600  0.0067     132
417          RX       0      60      90     126     141     177     207     267
418          RY     132     113     112     100     100     112     113     132

419          KK  S2M2
420          KM  S2M2
421          KO                                    22
422          BA    0.23
423          LS              75
424          UD    0.39

425          KK  S2MDAM
426          KM  48THST
427          KO                                    22
428          RS       1    ELEV      -1
429          SA     5.9     7.4     8.8    10.3
430          SE       0       2       4       6
431          SQ      20      40      80     500
432          SE       0       2       4       6

433          KK  R19B
434          KM  R19B
435          KO                                    22
436          RS       1    STOR       0
437          RC    .025    .06    .025    1227  .01334    1260
438          RX     458     500   576.9   587.8     603   623.3   663.5   731.7
439          RY    1260    1258  1254.5    1254    1254  1255.5    1258    1260

440          KK  S2M1
441          KM  S2M1
442          KO                                    22
443          BA    0.16
444          LS              76
445          UD    0.25

446          KK  S2N
447          KM  S2N
448          KO                                    22
449          BA    0.16
450          LS              76
451          UD    0.42
```

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                                      HEC-1 INPUT                                    PAGE 11

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

452          KK  YANKB
453          KM  YANKB
454          KO                                    22
455          HC       3

456          KK  191
457          KM  ROUTE COMBINED FLOW FROM YANKB THROUGH STRUCUTRE 191
458          KO                                    22
459          RS       1    ELEV  1247.1
460          SA       0   0.001    .201    .590   1.192   2.561   4.451   7.822  11.721
461          SE  1247.1    1248    1250    1252    1254    1256    1258    1260    1262
462          SQ       0     113     167     275     371     460     545     638     850    1062
463          SE  1247.1 1249.87 1250.71 1252.16 1253.28 1254.23 1255.08 1256.23 1259.28 1260.19

464          KK  R19A
465          KM  R19A
466          KO                                    22
467          RS       1    STOR       0
468          RC     .04     .06     .04    1425 .007411    1248
469          RX     873   924.8  1064.6 1072.73  1081.9  1100.4    1138    1148
470          RY    1246  1245.2    1244 1241.31  1241.3    1246    1248    1249

471          KK  S2L
472          KM  S2L
473          KO                                    22
474          BA    0.17
475          LS              86
476          UD    0.10

477          KK  40THA
478          KM  40THA
479          KO                                    22
480          HC       2

481          KK  83
482          KM  ROUTE COMBINED FLOW FROM 40THA THROUGH STRUCTURE 83
483          KO                                    22
484          RS       1    ELEV  1234.2
485          SA       0   .0084    .147    .603   2.475   5.394
486          SE  1234.2    1236    1238    1240    1242    1244
487          SQ       0     200     286     442     574     696     818     950    1272    1590
488          SE  1234.2 1237.82 1238.78 1240.31 1241.72 1242.22 1242.33 1242.50 1242.71 1242.96

489          KK  R18B
490          KM  R18B
491          KO                                    22
492          RS       1    STOR       0
493          RC     .04     .06     .04    1413 .007960    1242
```

```
 494          RX   355.2   479.7   507.9   521.4   541.6   564.7   588.1   663.2
 495          RY    1242  1239.5  1237.9  1233.9  1233.9    1238    1238    1240

                                    HEC-1 INPUT                                    PAGE 12

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

 496          KK  S2K
 497          KM  S2K
 498          KO                                  22
 499          BA    0.31
 500          LS              87
 501          UD    0.21

 502          KK  Node31
 503          KM
 504          KO                                  22
 505          HC       2

 506          KK  R18A
 507          KM  R18A
 508          KO                                  22
 509          RS       1    STOR       0
 510          RC     .04     .06     .04    1312 .006748    1230
 511          RX   496.4   587.6  607.55  621.69  627.64  660.75   806.4  1094.6
 512          RY    1230    1228    1226    1222    1222    1226    1227    1228

 513          KK  S2J
 514          KM  S2J
 515          KO                                  22
 516          BA    0.23
 517          LS              91
 518          UD    0.32

 519          KK  Node28
 520          KM
 521          KO                                  22
 522          HC       2

 523          KK  R17
 524          KM  R17
 525          KO                                  22
 526          RS       1    STOR       0
 527          SV       0     2.9     4.2     7.6    10.1    11.9    14.0    16.1    20.5    25.0
 528          SQ       0     487     666     982    1222    1345    1549    1794    2337    2921

 529          KK  Node25
 530          KM
 531          KO                                  22
 532          HC       2

 533          KK  R9
 534          KM  R9
 535          KO                                  22
 536          RS       1    STOR       0
 537          RC   0.035   0.045   0.035    1200   0.005     132
 538          RX       0      60      90     126     141     177     207     267
 539          RY     132     113     112     100     100     112     113     132

                                    HEC-1 INPUT                                    PAGE 13

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

 540          KK  S2H
 541          KM  S2H
 542          KO                                  22
 543          BA    0.20
 544          LS              88
 545          UD    0.11

 546          KK  S2I1
 547          KM  S2I1
 548          KO                                  22
 549          BA    0.11
 550          LS              88
 551          UD    0.12

 552          KK  S2I2
 553          KM  S2I2
 554          KO                                  22
 555          BA    0.22
 556          LS              85
 557          UD    0.34

 558          KK  Node21
 559          KM
 560          KO                                  22
 561          HC       4

 562          KK  R8
 563          KM  R8
 564          KO                                              22
 565          RS       1    STOR       0
 566          RC   0.035   0.045   0.035    1000  0.0007     132
 567          RX       0      60      90     126     141     177     207     267
 568          RY     132     113     112     100     100     112     113     132

 569          KK  S2G
 570          KM  S2G
 571          KO                                              22
 572          BA    0.09
 573          LS              89
 574          UD    0.15

 575          KK  ROKEBY
 576          KM  ROKEBY
 577          KO                                              22
 578          HC       2

 579          KK  R7C
 580          KM  R7C
 581          KO                                              22
 582          RS       1    STOR       0
 583          RC   0.035   0.045   0.035     500  0.0033     132
 584          RX       0      60      90     126     141     177     207     267
 585          RY     132     113     112     100     100     112     113     132

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

 586          KK  S2F2
 587          KM  S2F2
 588          KO                                              22
 589          BA    0.18
 590          LS              88
 591          UD    0.14

 592          KK  Node15
 593          KM
 594          KO                                              22
 595          HC       2

 596          KK  R7B
 597          KM  R7B
 598          KO                                              22
 599          RS       1    STOR       0
 600          RC   0.035   0.045   0.035     600  0.0033     132
 601          RX       0      60      90     126     141     177     207     267
 602          RY     132     113     112     100     100     112     113     132

 603          KK  S2E
 604          KM  S2E
 605          KO                                              22
 606          BA    0.25
 607          LS              89
 608          UD    0.19

 609          KK  S2EDAM
 610          KM
 611          KO                                              22
 612          RS            ELEV    1218
 613          SA     2.5    3.031   4.628   6.964   9.303  11.733
 614          SE    1218     1220    1222    1224    1226    1228
 615          SQ       0      6.6    18.6    22.8    23.3    23.8    24.3    24.7    25.2      44
 616          SQ      78      174    1078    2650    7000
 617          SE    1218  1218.5    1219  1219.5    1220  1220.5    1221  1221.5    1222  1222.5
 618          SE    1223     1224    1225    1226    1228

 619          KK  S2F1
 620          KM
 621          KO                                              22
 622          BA    .146
 623          LS              85
 624          UD    0.12

 625          KK  Node11
 626          KM
 627          KO                                              22
 628          HC       3

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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10
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629          KK  R7A
630          KM  R7A
631          KO                                    22
632          RS       1    STOR       0
633          RC   0.035   0.045   0.035    1650  0.0033     132
634          RX       0      60      90     126     141     177     207     267
635          RY     132     113     112     100     100     112     113     132

636          KK  27THB
637          KM  27THB
638          KO                                    22
639          HC       2

640          KK  R6B
641          KM  R6B
642          KO                                    22
643          RS       1    STOR       0
644          RC   0.035   0.045   0.035     950  0.0005     132
645          RX       0      60      90     126     141     177     207     267
646          RY     132     113     112     100     100     112     113     132

647          KK  S5A
648          KM  S5A
649          KO                                    22
650          BA    0.22
651          LS              84
652          UD     .29

653          KK  PondS5
654          KM  PondS5A
655          KO                                    22
656          RS       1    ELEV    1263
657          SV       0     1.1      4.4      9.4     16.1
658          SE    1263    1264     1266     1268     1270
659          SQ       0     6.6     18.6     22.8     23.3     23.8     24.3     24.7     25.2      44
660          SQ      78     174     1078
661          SE    1263  1263.5     1264   1264.5     1265   1265.5     1266   1266.5     1267   1267.5
662          SE    1268    1269     1270

663          KK  R33
664          KM  R33
665          KO                                    22
666          RS       1    STOR       0
667          SV       0     2.4      3.1      4.6      5.7      6.9      7.7      8.4     10.1     11.9
668          SV    13.7
669          SQ       0      94      137      220      291      356      417      483      633      800
670          SQ    1000

671          KK  S5B
672          KM  S5B
673          KO                                    22
674          BA    0.37
675          LS              83
676          UD     .28
```

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

677          KK  S5up
678          KM
679          KO                                    22
680          HC       2

681          KK  R32
682          KM  R32
683          KO                                    22
684          RS       1    STOR       0
685          SV       0     4.0      6.2     11.6     14.3     16.5     18.5     20.6     24.9     29.3
686          SV    32.9
687          SQ       0     217      315      522      689      846      995     1161     1537     2000
688          SQ    2400

689          KK  S5C
690          KM  S5C
691          KO                                    22
692          BA    0.23
693          LS              86
694          UD    0.20

695          KK  S38th
696          KM
697          KO                                    22
698          HC       2

699          KK  R31
700          KM  R31
701          KO                                    22
702          RS       1    STOR       0
703          SV       0    11.2     15.1     24.4     29.1     34.9     39.7     50.9     74.6     94.1
704          SV   115.7
705          SQ       0     253      366      580      760      974     1174     1389     1905     2400
706          SQ    2900

707          KK  S5E
708          KM  S5E
709          KO                                    22
710          BA    0.18
711          LS              86
712          UD    0.16

713          KK  R34
714          KM  R34
715          KO                                    22
716          RS       1    STOR       0
717          SV       0     4.4     12.3     27.0     55.3     84.4    127.7    146.6    151.5    157.3
718          SV   162.3
719          SQ       0      82      120      194      257      315      369      428      560      700
720          SQ     860
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9.....10

721          KK  S5F
722          KM  S5F
723          KO                                    22
724          BA    0.28
725          LS              83
726          UD     .13

727          KK  S5G
728          KM  S5G
729          KO                                    22
730          BA    0.15
731          LS              84
732          UD    0.10

733          KK  RRjctn
734          KM
735          KO                                    22
736          HC       4

737          KK  S5D
738          KM  S5D
739          KO                                    22
740          BA    0.34
741          LS              86
742          UD    0.12

743          KK  Saltil
744          KM
745          KO                                    22
746          HC       2

747          KK  S2B1
748          KM  S2B1
749          KO                                    22
750          BA     .14
751          LS              79
752          UD     .15

753          KK  BNSFB
754          KM
755          KO                                    22
756          HC       3

757          KK  R6A
758          KM  R6A
759          KO                                    22
760          RS       1    STOR       0
761          SV       0     1.4      3.6      9.5     16.8     27.8     34.2     42.8     53.6     59.2
762          SQ       0    1166     1746     2864     3960     4356     5363     6452     8849    11187
```

HEC-1 INPUT PAGE 18

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

763          KK  S1G
764          KM  S1G
765          KO                                    22
766          BA    0.19
767          LS              90
768          UD    0.19
```

```
769          KK  S1F
770          KM  S1F
771          KO                              22
772          BA    0.14
773          LS              94
774          UD    0.47

775          KK  Node12
776          KM
777          KO                              22
778          HC       2

779          KK  R5
780          KM  R5
781          KO                              22
782          RS       1    STOR       0
783          SV       0     2.0     2.6     3.6     4.3     5.0     5.6     6.1     7.3     8.7
784          SQ       0     132     190     302     398     486     567     656     856    1070

785          KK  S1E
786          KM  S1E
787          KO                              22
788          BA    0.17
789          LS              89
790          UD    0.27

791          KK  27THA
792          KM  27THA
793          KO                              22
794          RS       1    STOR      -1
795          SV       0    .214   1.485   4.275   8.336  14.029   17.66
796          SQ       0   0.001   0.002    24.2    73.7   138.6   147.0

797          KK  R3
798          KM  R3
799          KO                              22
800          RS       1    STOR       0
801          SV       0     1.4     2.1     3.2     4.1     4.7     5.4     5.7     6.4     7.6
802          SQ       0      22      39      72      99     122     140     145     159     198

803          KK  S1D
804          KM  S1D
805          KO                              22
806          BA    0.20
807          LS              93
808          UD    0.23
```

HEC-1 INPUT PAGE 19

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

809          KK  Node11
810          KM
811          KO                              22
812          HC       3

813          KK  D37
814          KM
815          KO                              22
816          RS       1    ELEV    1202
817          SA     0.0     1.3     1.7     2.2     3.6     4.8
818          SE    1202    1204    1206    1208    1210    1212
819          SQ       0     175     480     850    1030    1500
820          SE    1202    1204    1206    1208    1210    1212

821          KK  R2
822          KM  R2
823          KO                              22
824          RS       1    STOR       0
825          SV       0     1.9     2.5     3.6     4.5     5.3     6.0     6.8     9.2    11.6
826          SQ       0     154     230     385     528     661     788     886    1116    1395

827          KK  S1C
828          KM  S1C
829          KO                              22
830          BA    0.19
831          LS              85
832          UD    0.38

833          KK  PONDN
834          KM  PONDN
835          KO                              22
836          RS       1    ELEV      -1
837          SV       0     2.2     3.5     4.8
838          SQ       0      16     135     350
839          SE     110     111   111.5     112

840          KK  S1B
841          KM  S1B
842          KO                                      22
843          BA    0.11
844          LS                73
845          UD    0.21

846          KK  Node14
847          KM
848          KO                                      22
849          HC       2

850          KK  R4
851          KM
852          KO                                      22
853          RS       1    STOR       0
854          SV       0     1.1     1.4     1.7     1.9     2.3     2.5     2.9     4.3     6.0
855          SQ       0      62     114     217     315     402     479     563     747     933
```

HEC-1 INPUT PAGE 20

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

856          KK  PONDK
857          KM  PONDK
858          KO                                      22
859          RS       1    ELEV      92
860          SV       0     4.2     8.9    11.4    13.7
861          SQ       0      70     370     570     800
862          SE      92      93      94    94.5      95

863          KK  Node10
864          KM
865          KO                                      22
866          HC       2

867          KK  R1B
868          KM  R1B
869          KO                                      22
870          RS       1    STOR       0
871          SV       0     1.2     1.8     3.1     4.4     5.5     6.4     7.4    10.5    14.6
872          SQ       0     169     271     530     757     971    1166    1350    1724    2155

873          KK  S1A3
874          KM  S1A3
875          KO                                      22
876          BA    0.17
877          LS                77
878          UD    0.35

879          KK  Node9
880          KM
881          KO                                      22
882          HC       2

883          KK  Node9A
884          KM
885          KO                                      22
886          DT  BNDitc
887          DI       0     358     501     828    1130    1355    1524    1689    2145    2681
888          DQ       0     126     199     379     554     690     794     897    1201    1487

889          KK  R1A
890          KM  R1A
891          KO                                      22
892          RS       1    STOR       0
893          RC     .04     .06    .035     794  .00894  1184.2
894          RX       0   879.6    1515  1521.7  1528.1  1555.9  1650.3  1789.4
895          RY  1183.4    1182    1180  1173.4  1173.4    1180    1182  1184.2

896          KK  S1A1
897          KM  S1A1
898          KO                                      22
899          BA    0.29
900          LS                68
901          UD    0.15
```

HEC-1 INPUT PAGE 21

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

902          KK  14TH
903          KM
904          KO                                      22
905          HC       2

906          KK  S1A4
907          KM  S1A4
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908          KO                                        22
909          BA    0.06
910          LS              80
911          UD    0.22

912          KK  BNDitc
913          KM
914          KO                                        22
915          DR  BNDitc

916          KK  Yankee
917          KM
918          KO                                        22
919          HC       2

920          KK  S2B2
921          KM  S2B2
922          KO                                        22
923          BA    0.07
924          LS              75
925          UD    0.31

926          KK  det-u
927          KM
928          KO                                        22
929          RS       1    ELEV   102.4
930          SV       0     0.6     1.8     3.0
931          SQ       0       2      38     180
932          SE   102.4   102.9   103.4   104.4

933          KK  S2A
934          KM  S2A
935          KO                                        22
936          BA    0.24
937          LS              67
938          UD    0.15

939          KK  S2C
940          KM  S2C
941          KO                                        22
942          BA    0.35
943          LS              86
944          UD    0.11
```

HEC-1 INPUT PAGE 22

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

945          KK  NULLB
946          KM  NULLB
947          KO                                  22
948          HC       6
949          ZZ
```

1-year Storm
for
LLCCP
Projected Conditions

1 YEAR

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	S2B3	26.	12.20	5.	2.	1.	0.07		
ROUTED TO	PONDA	26.	12.30	5.	2.	1.	0.07	119.39	12.30
ROUTED TO	R6C	5.	13.30	4.	2.	1.	0.07		
HYDROGRAPH AT	S2AD	129.	12.10	17.	5.	4.	0.17		
ROUTED TO	202	122.	12.10	17.	5.	4.	0.17	1324.38	12.10
ROUTED TO	66TH	119.	12.20	17.	5.	4.	0.17	1312.82	12.20
ROUTED TO	R16C	107.	12.30	17.	5.	4.	0.17	1342.54	12.30
HYDROGRAPH AT	S2AC	60.	12.10	9.	3.	2.	0.15		
2 COMBINED AT	Node84	159.	12.20	27.	8.	7.	0.32		
ROUTED TO	R16B	155.	12.30	27.	8.	7.	0.32	1288.73	12.30
HYDROGRAPH AT	S2AF	102.	12.30	20.	6.	5.	0.22		
ROUTED TO	R26B	98.	12.40	20.	6.	5.	0.22	1303.40	12.40
HYDROGRAPH AT	S2AE	72.	12.20	14.	4.	3.	0.17		
2 COMBINED AT	Node19	169.	12.30	34.	10.	8.	0.39		
ROUTED TO	R26A	168.	12.30	34.	10.	8.	0.39	1297.97	12.30
ROUTED TO	201	168.	12.30	34.	10.	8.	0.39	1291.72	12.30
2 COMBINED AT	R16A	323.	12.30	60.	19.	15.	0.71		
ROUTED TO	R16A	292.	12.40	60.	19.	15.	0.71	1284.44	12.40
HYDROGRAPH AT	S2AB	79.	12.20	14.	4.	4.	0.20		
2 COMBINED AT	Node75	354.	12.40	74.	23.	19.	0.91		
ROUTED TO	R15	312.	12.50	74.	23.	19.	0.91		
HYDROGRAPH AT	S2AA	47.	12.40	11.	3.	3.	0.20		
2 COMBINED AT	56THB	356.	12.50	85.	27.	21.	1.11		
ROUTED TO	R14C	343.	12.60	85.	27.	21.	1.11		
HYDROGRAPH AT	S2Z	59.	12.20	9.	3.	2.	0.11		
ROUTED TO	91	60.	12.20	9.	3.	2.	0.11	1275.58	12.20
2 COMBINED AT	Node64	364.	12.60	94.	29.	24.	1.22		
ROUTED TO	R14B	362.	12.60	94.	29.	24.	1.22		
HYDROGRAPH AT	S2Y	116.	12.30	23.	7.	6.	0.27		
ROUTED TO	90	115.	12.30	23.	7.	6.	0.27	1285.41	12.30
ROUTED TO	R25	105.	12.50	23.	7.	6.	0.27	1.31	12.50
ROUTED TO	CLV310	99.	12.60	23.	7.	6.	0.27	1262.32	12.60
HYDROGRAPH AT	S2X	37.	12.30	7.	2.	2.	0.09		
3 COMBINED AT	Node62	484.	12.60	125.	39.	31.	1.58		
ROUTED TO	R14A	466.	12.70	124.	39.	31.	1.58		
HYDROGRAPH AT	S2W	60.	12.30	12.	4.	3.	0.16		
2 COMBINED AT	Node57	498.	12.70	137.	43.	34.	1.74		
ROUTED TO	R13	490.	12.80	136.	43.	34.	1.74	103.75	12.80
HYDROGRAPH AT	S2V	80.	12.20	13.	4.	3.	0.21		
2 COMBINED AT	Node54	512.	12.70	149.	47.	37.	1.95		
ROUTED TO	R12	507.	12.80	149.	47.	37.	1.95	103.65	12.80
HYDROGRAPH AT	S2S	90.	12.10	13.	4.	3.	0.22		
ROUTED TO	R24B	83.	12.20	13.	4.	3.	0.22	1277.98	12.20
HYDROGRAPH AT	S2R	85.	12.10	13.	4.	3.	0.21		
2 COMBINED AT	REBEL	164.	12.20	26.	8.	7.	0.43		
ROUTED TO	56THA	132.	12.30	26.	8.	7.	0.43	1289.76	12.30
ROUTED TO	93	132.	12.30	26.	8.	7.	0.43	1273.01	12.30
ROUTED TO	S53RD	130.	12.40	26.	8.	7.	0.43	1265.14	12.40
ROUTED TO	R23A	131.	12.40	26.	8.	7.	0.43	1267.57	12.40
HYDROGRAPH AT	S2Q	61.	12.20	10.	3.	2.	0.14		

2 COMBINED AT	Node95	175.	12.30	36.	11.	9.	0.57		
ROUTED TO	R22	136.	12.50	36.	11.	9.	0.57		
HYDROGRAPH AT	S2P	46.	12.30	10.	3.	2.	0.19		
2 COMBINED AT	Node92	171.	12.50	46.	14.	11.	0.76		
ROUTED TO	R21	91.	13.10	44.	14.	11.	0.76		
HYDROGRAPH AT	S2U	87.	12.10	12.	4.	3.	0.12		
HYDROGRAPH AT	S2O	169.	12.10	26.	8.	6.	0.27		
4 COMBINED AT	40THB	641.	12.80	229.	73.	58.	3.10		
ROUTED TO	R11	640.	12.80	229.	73.	58.	3.10	104.16	12.80
HYDROGRAPH AT	S2T	315.	12.10	43.	13.	11.	0.36		
ROUTED TO	R20	264.	12.20	43.	13.	11.	0.36		
2 COMBINED AT	Node44	700.	12.80	270.	86.	69.	3.46		
ROUTED TO	R10	691.	12.80	269.	86.	69.	3.46	104.33	12.80
HYDROGRAPH AT	S2M2	58.	12.30	13.	4.	3.	0.23		
ROUTED TO	S2MDAM	22.	12.90	21.	20.	20.	0.23	0.22	12.90
ROUTED TO	R19B	22.	13.10	21.	20.	20.	0.23	1254.53	13.10
HYDROGRAPH AT	S2M1	56.	12.20	9.	3.	2.	0.16		
HYDROGRAPH AT	S2N	42.	12.30	9.	3.	2.	0.16		
3 COMBINED AT	YANKB	113.	12.20	39.	26.	25.	0.55		
ROUTED TO	191	112.	12.20	39.	26.	25.	0.55	1249.84	12.20
ROUTED TO	R19A	104.	12.40	39.	26.	24.	0.55	1243.51	12.40
HYDROGRAPH AT	S2L	173.	12.00	18.	6.	5.	0.17		
2 COMBINED AT	40THA	215.	12.00	57.	32.	29.	0.72		
ROUTED TO	83	211.	12.00	57.	32.	29.	0.72	1237.94	12.00
ROUTED TO	R18B	186.	12.10	57.	32.	29.	0.72	1235.99	12.10
HYDROGRAPH AT	S2K	257.	12.10	35.	11.	9.	0.31		
2 COMBINED AT	Node31	443.	12.10	92.	42.	37.	1.03		
ROUTED TO	R18A	406.	12.20	92.	42.	37.	1.03	1225.96	12.20
HYDROGRAPH AT	S2J	189.	12.20	32.	10.	8.	0.23		
2 COMBINED AT	Node28	595.	12.20	123.	52.	45.	1.26		
ROUTED TO	R17	556.	12.30	123.	52.	45.	1.26		
2 COMBINED AT	Node25	1185.	12.30	391.	138.	114.	4.72		
ROUTED TO	R9	1181.	12.40	391.	138.	114.	4.72	106.10	12.40
HYDROGRAPH AT	S2H	221.	12.00	24.	7.	6.	0.20		
HYDROGRAPH AT	S2I1	118.	12.00	13.	4.	3.	0.11		
HYDROGRAPH AT	S2I2	125.	12.20	22.	7.	6.	0.22		
4 COMBINED AT	Node21	1349.	12.40	448.	156.	129.	5.25		
ROUTED TO	R8	1321.	12.40	447.	156.	129.	5.25	110.18	12.40
HYDROGRAPH AT	S2G	92.	12.00	11.	3.	3.	0.09		
2 COMBINED AT	ROKEBY	1345.	12.40	458.	160.	131.	5.34		
ROUTED TO	R7C	1335.	12.50	458.	160.	131.	5.34	107.15	12.50
HYDROGRAPH AT	S2F2	180.	12.00	21.	7.	5.	0.18		
2 COMBINED AT	Node15	1379.	12.40	479.	167.	137.	5.52		
ROUTED TO	R7B	1379.	12.50	478.	167.	137.	5.52	107.25	12.50
HYDROGRAPH AT	S2E	238.	12.10	31.	10.	8.	0.25		
ROUTED TO	S2EDAM	24.	13.00	24.	10.	8.	0.25	1221.15	13.00
HYDROGRAPH AT	S2F1	133.	12.00	15.	5.	4.	0.15		
3 COMBINED AT	Node11	1426.	12.50	516.	181.	148.	5.92		
ROUTED TO	R7A	1408.	12.50	516.	181.	148.	5.92	107.32	12.50
2 COMBINED AT	27THB	1412.	12.50	519.	182.	149.	5.99		
ROUTED TO	R6B	1389.	12.60	519.	182.	149.	5.99	111.19	12.60
HYDROGRAPH AT	S5A	129.	12.20	21.	7.	5.	0.22		
ROUTED TO	PondS5	25.	13.00	21.	7.	5.	0.22	1266.27	13.00

ROUTED TO	R33	24.	13.80	20.	7.	5.	0.22	
HYDROGRAPH AT	S5B	206.	12.20	34.	10.	8.	0.37	
2 COMBINED AT	S5up	220.	12.20	54.	17.	14.	0.59	
ROUTED TO	R32	169.	12.40	53.	17.	14.	0.59	
HYDROGRAPH AT	S5C	185.	12.10	25.	8.	6.	0.23	
2 COMBINED AT	S38th	293.	12.20	78.	24.	20.	0.82	
ROUTED TO	R31	182.	12.60	76.	24.	20.	0.82	
HYDROGRAPH AT	S5E	150.	12.10	19.	6.	5.	0.18	
ROUTED TO	R34	65.	12.30	19.	6.	5.	0.18	
HYDROGRAPH AT	S5F	218.	12.00	26.	8.	6.	0.28	
HYDROGRAPH AT	S5G	136.	12.00	14.	4.	4.	0.15	
4 COMBINED AT	RRjctn	445.	12.00	135.	43.	34.	1.43	
HYDROGRAPH AT	S5D	328.	12.00	36.	11.	9.	0.34	
2 COMBINED AT	Saltil	773.	12.00	170.	54.	43.	1.77	
HYDROGRAPH AT	S2B1	77.	12.10	10.	3.	2.	0.14	
3 COMBINED AT	BNSFB	1734.	12.60	697.	239.	195.	7.90	
ROUTED TO	R6A	1725.	12.60	696.	239.	195.	7.90	
HYDROGRAPH AT	S1G	190.	12.10	25.	8.	6.	0.19	
HYDROGRAPH AT	S1F	104.	12.30	22.	7.	6.	0.14	
2 COMBINED AT	Node12	264.	12.10	47.	15.	12.	0.33	
ROUTED TO	R5	227.	12.20	47.	15.	12.	0.33	
HYDROGRAPH AT	S1E	134.	12.10	21.	7.	5.	0.17	
ROUTED TO	27THA	42.	12.60	18.	6.	5.	0.17	
ROUTED TO	R3	31.	13.40	18.	6.	5.	0.17	
HYDROGRAPH AT	S1D	214.	12.10	30.	9.	8.	0.20	
3 COMBINED AT	Node11	419.	12.20	93.	30.	24.	0.70	
ROUTED TO	D37	381.	12.30	93.	30.	24.	0.70	1205.35 12.30
ROUTED TO	R2	363.	12.40	93.	30.	24.	0.70	
HYDROGRAPH AT	S1C	101.	12.30	19.	6.	5.	0.19	
ROUTED TO	PONDN	79.	12.50	18.	6.	5.	0.19	111.26 12.50
HYDROGRAPH AT	S1B	33.	12.10	5.	2.	1.	0.11	
2 COMBINED AT	Node14	92.	12.50	23.	8.	6.	0.30	
ROUTED TO	R4	85.	12.60	23.	8.	6.	0.30	
ROUTED TO	PONDK	46.	13.10	22.	8.	6.	0.30	92.66 13.10
2 COMBINED AT	Node10	378.	12.40	114.	38.	30.	1.00	
ROUTED TO	R1B	369.	12.50	114.	38.	30.	1.00	
HYDROGRAPH AT	S1A3	54.	12.30	11.	3.	3.	0.17	
2 COMBINED AT	Node9	413.	12.40	125.	41.	33.	1.17	
DIVERSION TO	BNDitc	154.	12.40	44.	14.	12.	1.17	
HYDROGRAPH AT	Node9A	259.	12.40	80.	26.	21.	1.17	
ROUTED TO	R1A	258.	12.50	80.	26.	21.	1.17	1177.28 12.50
HYDROGRAPH AT	S1A1	58.	12.10	9.	3.	2.	0.29	
2 COMBINED AT	14TH	277.	12.50	89.	29.	24.	1.46	
HYDROGRAPH AT	S1A4	31.	12.10	5.	1.	1.	0.06	
HYDROGRAPH AT	BNDitc	154.	12.40	44.	14.	12.	0.00	
2 COMBINED AT	Yankee	169.	12.40	49.	16.	13.	0.06	
HYDROGRAPH AT	S2B2	20.	12.20	4.	1.	1.	0.07	
ROUTED TO	det-u	7.	12.80	3.	1.	1.	0.07	102.97 12.80
HYDROGRAPH AT	S2A	42.	12.10	7.	2.	2.	0.24	
HYDROGRAPH AT	S2C	347.	12.00	38.	12.	9.	0.35	
6 COMBINED AT	NULLB	2196.	12.60	881.	299.	243.	10.08	

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

2-year Storm
for
LLCCP
Projected Conditions

2 YEAR

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	S2B3	40.	12.20	7.	2.	2.	0.07		
ROUTED TO	PONDA	37.	12.30	7.	2.	2.	0.07	120.12	12.30
ROUTED TO	R6C	8.	13.20	6.	2.	2.	0.07		
HYDROGRAPH AT	S2AD	177.	12.10	24.	7.	6.	0.17		
ROUTED TO	202	169.	12.10	24.	7.	6.	0.17	1325.33	12.10
ROUTED TO	66TH	161.	12.20	24.	7.	6.	0.17	1313.71	12.20
ROUTED TO	R16C	148.	12.30	23.	7.	6.	0.17	1342.73	12.30
HYDROGRAPH AT	S2AC	93.	12.10	14.	4.	3.	0.15		
2 COMBINED AT	Node84	225.	12.20	37.	12.	9.	0.32		
ROUTED TO	R16B	219.	12.30	37.	12.	9.	0.32	1288.91	12.30
HYDROGRAPH AT	S2AF	144.	12.30	28.	9.	7.	0.22		
ROUTED TO	R26B	139.	12.30	28.	9.	7.	0.22	1303.69	12.30
HYDROGRAPH AT	S2AE	106.	12.20	20.	6.	5.	0.17		
2 COMBINED AT	Node19	243.	12.30	47.	15.	12.	0.39		
ROUTED TO	R26A	242.	12.30	47.	15.	12.	0.39	1298.55	12.30
ROUTED TO	201	239.	12.30	47.	15.	12.	0.39	1293.38	12.30
2 COMBINED AT	R16A	458.	12.30	85.	26.	21.	0.71		
ROUTED TO	R16A	432.	12.40	84.	26.	21.	0.71	1284.61	12.40
HYDROGRAPH AT	S2AB	119.	12.20	21.	6.	5.	0.20		
2 COMBINED AT	Node75	523.	12.40	105.	33.	26.	0.91		
ROUTED TO	R15	477.	12.50	105.	33.	26.	0.91		
HYDROGRAPH AT	S2AA	75.	12.30	17.	5.	4.	0.20		
2 COMBINED AT	56THB	545.	12.50	122.	38.	30.	1.11		
ROUTED TO	R14C	528.	12.60	122.	38.	30.	1.11		
HYDROGRAPH AT	S2Z	84.	12.10	13.	4.	3.	0.11		
ROUTED TO	91	84.	12.20	13.	4.	3.	0.11	1276.29	12.20
2 COMBINED AT	Node64	560.	12.50	135.	42.	34.	1.22		
ROUTED TO	R14B	562.	12.60	135.	42.	34.	1.22		
HYDROGRAPH AT	S2Y	166.	12.30	33.	10.	8.	0.27		
ROUTED TO	90	164.	12.30	33.	10.	8.	0.27	1286.26	12.30
ROUTED TO	R25	152.	12.40	32.	10.	8.	0.27	1.56	12.40
ROUTED TO	CLV310	140.	12.60	32.	10.	8.	0.27	1263.23	12.60
HYDROGRAPH AT	S2X	54.	12.30	10.	3.	3.	0.09		
3 COMBINED AT	Node62	734.	12.60	177.	55.	44.	1.58		
ROUTED TO	R14A	720.	12.60	177.	55.	44.	1.58		
HYDROGRAPH AT	S2W	88.	12.30	17.	5.	4.	0.16		
2 COMBINED AT	Node57	777.	12.60	195.	60.	48.	1.74		
ROUTED TO	R13	763.	12.70	194.	60.	48.	1.74	104.72	12.70
HYDROGRAPH AT	S2V	123.	12.10	20.	6.	5.	0.21		
2 COMBINED AT	Node54	797.	12.70	214.	66.	53.	1.95		
ROUTED TO	R12	780.	12.70	213.	66.	53.	1.95	104.52	12.70
HYDROGRAPH AT	S2S	140.	12.10	20.	6.	5.	0.22		
ROUTED TO	R24B	129.	12.20	20.	6.	5.	0.22	1278.27	12.20
HYDROGRAPH AT	S2R	131.	12.10	20.	6.	5.	0.21		
2 COMBINED AT	REBEL	257.	12.10	39.	12.	10.	0.43		
ROUTED TO	56THA	179.	12.30	39.	12.	10.	0.43	1291.00	12.30
ROUTED TO	93	178.	12.40	39.	12.	10.	0.43	1273.74	12.40
ROUTED TO	S53RD	176.	12.40	39.	12.	10.	0.43	1265.93	12.40
ROUTED TO	R23A	175.	12.40	39.	12.	10.	0.43	1267.97	12.40
HYDROGRAPH AT	S2Q	90.	12.20	15.	4.	4.	0.14		

2 COMBINED AT	Node95	242.	12.30	54.	17.	13.	0.57	
ROUTED TO	R22	219.	12.50	53.	17.	13.	0.57	
HYDROGRAPH AT	S2P	75.	12.30	15.	5.	4.	0.19	
2 COMBINED AT	Node92	275.	12.50	68.	21.	17.	0.76	
ROUTED TO	R21	140.	13.10	66.	21.	17.	0.76	
HYDROGRAPH AT	S2U	120.	12.10	17.	5.	4.	0.12	
HYDROGRAPH AT	S2O	237.	12.10	36.	11.	9.	0.27	
4 COMBINED AT	40THB	984.	12.70	329.	104.	83.	3.10	
ROUTED TO	R11	979.	12.70	329.	104.	83.	3.10	105.22 12.70
HYDROGRAPH AT	S2T	419.	12.10	57.	18.	14.	0.36	
ROUTED TO	R20	348.	12.20	57.	18.	14.	0.36	
2 COMBINED AT	Node44	1080.	12.70	384.	121.	97.	3.46	
ROUTED TO	R10	1068.	12.80	383.	121.	97.	3.46	105.42 12.80
HYDROGRAPH AT	S2M2	93.	12.30	19.	6.	5.	0.23	
ROUTED TO	S2MDAM	25.	13.10	22.	21.	20.	0.23	0.50 13.10
ROUTED TO	R19B	25.	13.30	22.	21.	20.	0.23	1254.57 13.30
HYDROGRAPH AT	S2M1	87.	12.10	14.	4.	4.	0.16	
HYDROGRAPH AT	S2N	66.	12.30	14.	4.	4.	0.16	
3 COMBINED AT	YANKB	167.	12.20	51.	29.	27.	0.55	
ROUTED TO	191	162.	12.30	51.	29.	27.	0.55	1250.63 12.30
ROUTED TO	R19A	153.	12.40	50.	29.	27.	0.55	1243.97 12.40
HYDROGRAPH AT	S2L	234.	12.00	25.	8.	6.	0.17	
2 COMBINED AT	40THA	296.	12.00	74.	37.	33.	0.72	
ROUTED TO	83	278.	12.10	74.	37.	33.	0.72	1238.69 12.10
ROUTED TO	R18B	258.	12.10	74.	37.	33.	0.72	1236.39 12.10
HYDROGRAPH AT	S2K	346.	12.10	47.	14.	12.	0.31	
2 COMBINED AT	Node31	603.	12.10	121.	51.	45.	1.03	
ROUTED TO	R18A	550.	12.20	121.	51.	45.	1.03	1226.38 12.20
HYDROGRAPH AT	S2J	245.	12.20	41.	13.	10.	0.23	
2 COMBINED AT	Node28	795.	12.20	161.	64.	55.	1.26	
ROUTED TO	R17	732.	12.30	161.	64.	55.	1.26	
2 COMBINED AT	Node25	1687.	12.40	543.	185.	152.	4.72	
ROUTED TO	R9	1688.	12.40	542.	185.	152.	4.72	107.24 12.40
HYDROGRAPH AT	S2H	293.	12.00	31.	10.	8.	0.20	
HYDROGRAPH AT	S2I1	157.	12.00	17.	5.	4.	0.11	
HYDROGRAPH AT	S2I2	173.	12.20	30.	9.	8.	0.22	
4 COMBINED AT	Node21	1912.	12.40	619.	210.	172.	5.25	
ROUTED TO	R8	1876.	12.40	619.	210.	172.	5.25	111.87 12.40
HYDROGRAPH AT	S2G	121.	12.00	15.	5.	4.	0.09	
2 COMBINED AT	ROKEBY	1908.	12.40	633.	215.	175.	5.34	
ROUTED TO	R7C	1901.	12.50	633.	215.	175.	5.34	108.46 12.50
HYDROGRAPH AT	S2F2	241.	12.00	28.	9.	7.	0.18	
2 COMBINED AT	Node15	1951.	12.40	660.	223.	182.	5.52	
ROUTED TO	R7B	1956.	12.50	660.	223.	182.	5.52	108.56 12.50
HYDROGRAPH AT	S2E	313.	12.10	41.	13.	10.	0.25	
ROUTED TO	S2EDAM	27.	13.20	25.	13.	10.	0.25	1222.04 13.20
HYDROGRAPH AT	S2F1	183.	12.00	20.	6.	5.	0.15	
3 COMBINED AT	Node11	2010.	12.50	704.	242.	197.	5.92	
ROUTED TO	R7A	1993.	12.50	704.	242.	197.	5.92	108.63 12.50
2 COMBINED AT	27THB	1999.	12.50	709.	245.	199.	5.99	
ROUTED TO	R6B	1972.	12.60	708.	245.	199.	5.99	112.77 12.60
HYDROGRAPH AT	S5A	179.	12.20	29.	9.	7.	0.22	
ROUTED TO	PondS5	35.	12.90	26.	9.	7.	0.22	1267.26 12.90
ROUTED TO	R33	33.	13.30	26.	9.	7.	0.22	

HYDROGRAPH AT	S5B	290.	12.20	47.	14.	12.	0.37		
2 COMBINED AT	S5up	307.	12.20	71.	23.	19.	0.59		
ROUTED TO	R32	234.	12.40	70.	23.	19.	0.59		
HYDROGRAPH AT	S5C	251.	12.10	33.	10.	8.	0.23		
2 COMBINED AT	S38th	408.	12.20	103.	34.	27.	0.82		
ROUTED TO	R31	253.	12.60	101.	34.	27.	0.82		
HYDROGRAPH AT	S5E	203.	12.00	26.	8.	6.	0.18		
ROUTED TO	R34	84.	12.30	26.	8.	6.	0.18		
HYDROGRAPH AT	S5F	307.	12.00	35.	11.	9.	0.28		
HYDROGRAPH AT	S5G	188.	12.00	20.	6.	5.	0.15		
4 COMBINED AT	RRjctn	630.	12.00	181.	59.	47.	1.43		
HYDROGRAPH AT	S5D	445.	12.00	49.	15.	12.	0.34		
2 COMBINED AT	Saltil	1075.	12.00	229.	74.	59.	1.77		
HYDROGRAPH AT	S2B1	113.	12.00	15.	4.	4.	0.14		
3 COMBINED AT	BNSFB	2445.	12.60	949.	323.	262.	7.90		
ROUTED TO	R6A	2425.	12.60	950.	323.	262.	7.90		
HYDROGRAPH AT	S1G	248.	12.10	32.	10.	8.	0.19		
HYDROGRAPH AT	S1F	131.	12.30	28.	9.	7.	0.14		
2 COMBINED AT	Node12	341.	12.10	60.	19.	15.	0.33		
ROUTED TO	R5	300.	12.20	60.	19.	15.	0.33		
HYDROGRAPH AT	S1E	178.	12.10	28.	9.	7.	0.17		
ROUTED TO	27THA	62.	12.60	25.	8.	6.	0.17		
ROUTED TO	R3	48.	13.20	25.	8.	6.	0.17		
HYDROGRAPH AT	S1D	272.	12.10	38.	12.	10.	0.20		
3 COMBINED AT	Node11	546.	12.20	120.	39.	31.	0.70		
ROUTED TO	D37	495.	12.30	120.	39.	31.	0.70	1206.08	12.30
ROUTED TO	R2	475.	12.40	120.	39.	31.	0.70		
HYDROGRAPH AT	S1C	139.	12.30	26.	8.	7.	0.19		
ROUTED TO	PONDN	119.	12.40	25.	8.	7.	0.19	111.43	12.40
HYDROGRAPH AT	S1B	55.	12.10	8.	3.	2.	0.11		
2 COMBINED AT	Node14	145.	12.40	33.	11.	9.	0.30		
ROUTED TO	R4	145.	12.40	33.	11.	9.	0.30		
ROUTED TO	PONDK	79.	12.90	32.	11.	9.	0.30	93.03	12.90
2 COMBINED AT	Node10	510.	12.40	151.	50.	40.	1.00		
ROUTED TO	R1B	498.	12.50	151.	50.	40.	1.00		
HYDROGRAPH AT	S1A3	83.	12.20	16.	5.	4.	0.17		
2 COMBINED AT	Node9	565.	12.40	167.	55.	44.	1.17		
DIVERSION TO	BNDitc	234.	12.40	61.	20.	16.	1.17		
HYDROGRAPH AT	Node9A	331.	12.40	105.	35.	28.	1.17		
ROUTED TO	R1A	330.	12.50	105.	35.	28.	1.17	1177.73	12.50
HYDROGRAPH AT	S1A1	110.	12.10	15.	5.	4.	0.29		
2 COMBINED AT	14TH	363.	12.40	121.	40.	32.	1.46		
HYDROGRAPH AT	S1A4	46.	12.10	7.	2.	2.	0.06		
HYDROGRAPH AT	BNDitc	234.	12.40	61.	20.	16.	0.00		
2 COMBINED AT	Yankee	255.	12.40	68.	22.	18.	0.06		
HYDROGRAPH AT	S2B2	33.	12.20	6.	2.	1.	0.07		
ROUTED TO	det-u	16.	12.60	5.	2.	1.	0.07	103.09	12.60
HYDROGRAPH AT	S2A	83.	12.10	12.	4.	3.	0.24		
HYDROGRAPH AT	S2C	471.	12.00	51.	16.	13.	0.35		
6 COMBINED AT	NULLB	3077.	12.60	1204.	406.	328.	10.08		

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

5-year Storm
for
LLCCP
Projected Conditions

5 YEAR

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	S2B3	66.	12.20	12.	4.	3.	0.07		
ROUTED TO	PONDA	64.	12.30	12.	4.	3.	0.07	120.66	12.30
ROUTED TO	R6C	13.	13.10	9.	4.	3.	0.07		
HYDROGRAPH AT	S2AD	266.	12.10	35.	11.	9.	0.17		
ROUTED TO	202	278.	12.10	35.	11.	9.	0.17	1325.94	12.10
ROUTED TO	66TH	231.	12.20	35.	11.	9.	0.17	1315.32	12.20
ROUTED TO	R16C	218.	12.30	35.	11.	9.	0.17	1342.98	12.30
HYDROGRAPH AT	S2AC	159.	12.10	23.	7.	6.	0.15		
2 COMBINED AT	Node84	354.	12.20	58.	18.	14.	0.32		
ROUTED TO	R16B	340.	12.30	58.	18.	14.	0.32	1289.17	12.30
HYDROGRAPH AT	S2AF	223.	12.30	42.	13.	11.	0.22		
ROUTED TO	R26B	220.	12.30	42.	13.	11.	0.22	1304.11	12.30
HYDROGRAPH AT	S2AE	170.	12.20	31.	9.	8.	0.17		
2 COMBINED AT	Node19	385.	12.30	73.	23.	18.	0.39		
ROUTED TO	R26A	386.	12.30	73.	23.	18.	0.39	1299.32	12.30
ROUTED TO	201	380.	12.30	73.	23.	18.	0.39	1294.37	12.30
2 COMBINED AT	R16A	720.	12.30	131.	41.	33.	0.71		
ROUTED TO	R16A	686.	12.40	131.	41.	33.	0.71	1284.88	12.40
HYDROGRAPH AT	S2AB	195.	12.20	33.	10.	8.	0.20		
2 COMBINED AT	Node75	840.	12.30	164.	51.	41.	0.91		
ROUTED TO	R15	775.	12.50	164.	51.	41.	0.91		
HYDROGRAPH AT	S2AA	134.	12.30	28.	9.	7.	0.20		
2 COMBINED AT	56THB	893.	12.50	192.	60.	48.	1.11		
ROUTED TO	R14C	850.	12.60	192.	60.	48.	1.11		
HYDROGRAPH AT	S2Z	133.	12.10	21.	6.	5.	0.11		
ROUTED TO	91	132.	12.20	21.	6.	5.	0.11	1277.54	12.20
2 COMBINED AT	Node64	900.	12.50	213.	66.	53.	1.22		
ROUTED TO	R14B	901.	12.60	213.	66.	53.	1.22		
HYDROGRAPH AT	S2Y	261.	12.30	50.	16.	12.	0.27		
ROUTED TO	90	255.	12.30	50.	16.	12.	0.27	1287.59	12.30
ROUTED TO	R25	239.	12.40	50.	16.	12.	0.27	2.01	12.40
ROUTED TO	CLV310	215.	12.60	50.	16.	12.	0.27	1264.35	12.60
HYDROGRAPH AT	S2X	85.	12.30	16.	5.	4.	0.09		
3 COMBINED AT	Node62	1166.	12.60	279.	86.	69.	1.58		
ROUTED TO	R14A	1161.	12.60	279.	86.	69.	1.58		
HYDROGRAPH AT	S2W	143.	12.30	28.	9.	7.	0.16		
2 COMBINED AT	Node57	1251.	12.60	306.	95.	76.	1.74		
ROUTED TO	R13	1241.	12.60	306.	95.	76.	1.74	105.97	12.60
HYDROGRAPH AT	S2V	210.	12.10	32.	10.	8.	0.21		
2 COMBINED AT	Node54	1308.	12.60	338.	105.	84.	1.95		
ROUTED TO	R12	1293.	12.70	338.	105.	84.	1.95	105.81	12.70
HYDROGRAPH AT	S2S	240.	12.10	32.	10.	8.	0.22		
ROUTED TO	R24B	222.	12.10	32.	10.	8.	0.22	1278.72	12.10
HYDROGRAPH AT	S2R	223.	12.10	32.	10.	8.	0.21		
2 COMBINED AT	REBEL	445.	12.10	65.	20.	16.	0.43		
ROUTED TO	56THA	369.	12.30	65.	20.	16.	0.43	1292.51	12.30
ROUTED TO	93	366.	12.30	65.	20.	16.	0.43	1276.24	12.30
ROUTED TO	S53RD	309.	12.40	65.	20.	16.	0.43	1267.74	12.40
ROUTED TO	R23A	307.	12.40	65.	20.	16.	0.43	1268.96	12.40
HYDROGRAPH AT	S2Q	149.	12.10	23.	7.	6.	0.14		

2 COMBINED AT	Node95	394.	12.40	88.	27.	22.	0.57	
ROUTED TO	R22	389.	12.40	88.	27.	22.	0.57	
HYDROGRAPH AT	S2P	134.	12.30	26.	8.	6.	0.19	
2 COMBINED AT	Node92	508.	12.40	113.	35.	28.	0.76	
ROUTED TO	R21	287.	12.80	110.	35.	28.	0.76	
HYDROGRAPH AT	S2U	181.	12.10	25.	8.	6.	0.12	
HYDROGRAPH AT	S2O	364.	12.10	54.	17.	13.	0.27	
4 COMBINED AT	40THB	1683.	12.70	524.	164.	132.	3.10	
ROUTED TO	R11	1686.	12.70	524.	164.	132.	3.10	106.79 12.70
HYDROGRAPH AT	S2T	610.	12.10	82.	26.	21.	0.36	
ROUTED TO	R20	532.	12.20	82.	26.	21.	0.36	
2 COMBINED AT	Node44	1889.	12.60	604.	190.	153.	3.46	
ROUTED TO	R10	1860.	12.70	604.	190.	153.	3.46	107.08 12.70
HYDROGRAPH AT	S2M2	165.	12.30	32.	10.	8.	0.23	
ROUTED TO	S2MDAM	31.	13.30	28.	22.	22.	0.23	1.13 13.40
ROUTED TO	R19B	31.	13.50	28.	22.	21.	0.23	1254.65 13.40
HYDROGRAPH AT	S2M1	153.	12.10	24.	7.	6.	0.16	
HYDROGRAPH AT	S2N	115.	12.30	24.	7.	6.	0.16	
3 COMBINED AT	YANKB	275.	12.20	74.	37.	33.	0.55	
ROUTED TO	191	263.	12.30	74.	37.	33.	0.55	1252.00 12.30
ROUTED TO	R19A	243.	12.40	74.	37.	33.	0.55	1244.49 12.40
HYDROGRAPH AT	S2L	346.	12.00	36.	11.	9.	0.17	
2 COMBINED AT	40THA	450.	12.00	110.	48.	42.	0.72	
ROUTED TO	83	418.	12.10	110.	48.	42.	0.72	1240.08 12.10
ROUTED TO	R18B	389.	12.20	110.	48.	42.	0.72	1236.98 12.20
HYDROGRAPH AT	S2K	509.	12.10	69.	21.	17.	0.31	
2 COMBINED AT	Node31	893.	12.10	178.	69.	59.	1.03	
ROUTED TO	R18A	810.	12.20	178.	69.	59.	1.03	1226.85 12.20
HYDROGRAPH AT	S2J	345.	12.20	57.	18.	15.	0.23	
2 COMBINED AT	Node28	1155.	12.20	234.	88.	74.	1.26	
ROUTED TO	R17	1042.	12.30	234.	88.	74.	1.26	
2 COMBINED AT	Node25	2692.	12.40	836.	278.	226.	4.72	
ROUTED TO	R9	2691.	12.40	836.	278.	226.	4.72	108.98 12.40
HYDROGRAPH AT	S2H	424.	12.00	46.	14.	11.	0.20	
HYDROGRAPH AT	S2I1	228.	12.00	25.	8.	6.	0.11	
HYDROGRAPH AT	S2I2	262.	12.20	46.	14.	11.	0.22	
4 COMBINED AT	Node21	3018.	12.40	949.	314.	255.	5.25	
ROUTED TO	R8	2974.	12.40	949.	314.	255.	5.25	113.87 12.40
HYDROGRAPH AT	S2G	175.	12.00	21.	7.	5.	0.09	
2 COMBINED AT	ROKEBY	3018.	12.40	969.	321.	260.	5.34	
ROUTED TO	R7C	3016.	12.50	969.	321.	260.	5.34	110.40 12.50
HYDROGRAPH AT	S2F2	351.	12.00	41.	13.	10.	0.18	
2 COMBINED AT	Node15	3082.	12.40	1009.	334.	271.	5.52	
ROUTED TO	R7B	3092.	12.50	1009.	334.	271.	5.52	110.51 12.50
HYDROGRAPH AT	S2E	449.	12.10	59.	19.	15.	0.25	
ROUTED TO	S2EDAM	75.	12.70	39.	18.	15.	0.25	1222.95 12.70
HYDROGRAPH AT	S2F1	275.	12.00	30.	9.	8.	0.15	
3 COMBINED AT	Node11	3206.	12.50	1077.	361.	293.	5.92	
ROUTED TO	R7A	3184.	12.50	1076.	361.	293.	5.92	110.64 12.50
2 COMBINED AT	27THB	3194.	12.50	1085.	365.	296.	5.99	
ROUTED TO	R6B	3166.	12.60	1085.	365.	296.	5.99	114.95 12.60
HYDROGRAPH AT	S5A	274.	12.20	44.	14.	11.	0.22	
ROUTED TO	PondS5	102.	12.60	37.	14.	11.	0.22	1268.25 12.60
ROUTED TO	R33	83.	12.90	37.	14.	11.	0.22	

HYDROGRAPH AT	S5B	448.	12.20	71.	22.	18.	0.37		
2 COMBINED AT	S5up	468.	12.20	107.	36.	29.	0.59		
ROUTED TO	R32	350.	12.40	107.	36.	29.	0.59		
HYDROGRAPH AT	S5C	372.	12.10	49.	15.	12.	0.23		
2 COMBINED AT	S38th	616.	12.10	155.	51.	41.	0.82		
ROUTED TO	R31	399.	12.60	154.	51.	41.	0.82		
HYDROGRAPH AT	S5E	305.	12.00	39.	12.	10.	0.18		
ROUTED TO	R34	98.	12.40	38.	12.	10.	0.18		
HYDROGRAPH AT	S5F	476.	12.00	54.	17.	13.	0.28		
HYDROGRAPH AT	S5G	285.	12.00	30.	9.	7.	0.15		
4 COMBINED AT	RRjctn	982.	12.00	275.	89.	72.	1.43		
HYDROGRAPH AT	S5D	661.	12.00	73.	23.	18.	0.34		
2 COMBINED AT	Saltil	1643.	12.00	347.	112.	90.	1.77		
HYDROGRAPH AT	S2B1	187.	12.00	23.	7.	6.	0.14		
3 COMBINED AT	BNSFB	3868.	12.60	1451.	484.	391.	7.90		
ROUTED TO	R6A	3823.	12.70	1451.	484.	391.	7.90		
HYDROGRAPH AT	S1G	351.	12.10	46.	15.	12.	0.19		
HYDROGRAPH AT	S1F	180.	12.30	38.	12.	10.	0.14		
2 COMBINED AT	Node12	481.	12.10	84.	27.	22.	0.33		
ROUTED TO	R5	436.	12.20	84.	27.	22.	0.33		
HYDROGRAPH AT	S1E	257.	12.10	40.	13.	10.	0.17		
ROUTED TO	27THA	95.	12.60	38.	12.	10.	0.17		
ROUTED TO	R3	79.	13.10	37.	12.	10.	0.17		
HYDROGRAPH AT	S1D	374.	12.10	53.	17.	14.	0.20		
3 COMBINED AT	Node11	780.	12.20	171.	56.	45.	0.70		
ROUTED TO	D37	705.	12.30	171.	56.	45.	0.70	1207.22	12.30
ROUTED TO	R2	677.	12.40	171.	56.	45.	0.70		
HYDROGRAPH AT	S1C	209.	12.30	39.	12.	10.	0.19		
ROUTED TO	PONDN	198.	12.40	38.	12.	10.	0.19	111.65	12.40
HYDROGRAPH AT	S1B	101.	12.10	14.	4.	4.	0.11		
2 COMBINED AT	Node14	260.	12.30	52.	17.	13.	0.30		
ROUTED TO	R4	254.	12.30	52.	17.	13.	0.30		
ROUTED TO	PONDK	187.	12.60	51.	17.	13.	0.30	93.39	12.60
2 COMBINED AT	Node10	813.	12.40	220.	72.	58.	1.00		
ROUTED TO	R1B	800.	12.50	220.	72.	58.	1.00		
HYDROGRAPH AT	S1A3	142.	12.20	26.	8.	6.	0.17		
2 COMBINED AT	Node9	896.	12.50	246.	80.	64.	1.17		
DIVERSION TO	BNDitc	419.	12.50	98.	31.	25.	1.17		
HYDROGRAPH AT	Node9A	478.	12.50	148.	49.	40.	1.17		
ROUTED TO	R1A	476.	12.50	148.	49.	40.	1.17	1178.52	12.50
HYDROGRAPH AT	S1A1	221.	12.10	29.	9.	7.	0.29		
2 COMBINED AT	14TH	531.	12.50	178.	58.	47.	1.46		
HYDROGRAPH AT	S1A4	75.	12.10	10.	3.	3.	0.06		
HYDROGRAPH AT	BNDitc	419.	12.50	98.	31.	25.	0.00		
2 COMBINED AT	Yankee	443.	12.50	108.	34.	27.	0.06		
HYDROGRAPH AT	S2B2	58.	12.20	10.	3.	2.	0.07		
ROUTED TO	det-u	33.	12.50	9.	3.	2.	0.07	103.33	12.50
HYDROGRAPH AT	S2A	172.	12.10	23.	7.	6.	0.24		
HYDROGRAPH AT	S2C	698.	12.00	75.	23.	19.	0.35		
6 COMBINED AT	NULLB	4884.	12.60	1842.	610.	492.	10.08		

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

10-year Storm
for
LLCCP
Projected Conditions

10 YEAR

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	S2B3	88.	12.20	15.	5.	4.	0.07		
ROUTED TO	PONDA	86.	12.30	15.	5.	4.	0.07	120.97	12.30
ROUTED TO	R6C	18.	13.10	12.	5.	4.	0.07		
HYDROGRAPH AT	S2AD	341.	12.10	45.	14.	11.	0.17		
ROUTED TO	202	344.	12.10	45.	14.	11.	0.17	1326.13	12.10
ROUTED TO	66TH	271.	12.20	45.	14.	11.	0.17	1316.78	12.20
ROUTED TO	R16C	263.	12.30	45.	14.	11.	0.17	1343.11	12.30
HYDROGRAPH AT	S2AC	217.	12.10	31.	10.	8.	0.15		
2 COMBINED AT	Node84	446.	12.20	76.	24.	19.	0.32		
ROUTED TO	R16B	438.	12.20	76.	24.	19.	0.32	1289.35	12.20
HYDROGRAPH AT	S2AF	291.	12.30	55.	17.	14.	0.22		
ROUTED TO	R26B	289.	12.30	55.	17.	14.	0.22	1304.36	12.30
HYDROGRAPH AT	S2AE	225.	12.20	40.	12.	10.	0.17		
2 COMBINED AT	Node19	506.	12.30	95.	30.	24.	0.39		
ROUTED TO	R26A	507.	12.30	95.	30.	24.	0.39	1299.78	12.30
ROUTED TO	201	510.	12.30	95.	30.	24.	0.39	1294.64	12.30
2 COMBINED AT	R16A	937.	12.30	171.	53.	43.	0.71		
ROUTED TO	R16A	892.	12.40	171.	53.	43.	0.71	1285.05	12.40
HYDROGRAPH AT	S2AB	262.	12.20	44.	14.	11.	0.20		
2 COMBINED AT	Node75	1130.	12.30	215.	67.	54.	0.91		
ROUTED TO	R15	1019.	12.40	215.	67.	54.	0.91		
HYDROGRAPH AT	S2AA	187.	12.30	38.	12.	9.	0.20		
2 COMBINED AT	56THB	1200.	12.40	253.	79.	63.	1.11		
ROUTED TO	R14C	1136.	12.50	253.	79.	63.	1.11		
HYDROGRAPH AT	S2Z	175.	12.10	27.	8.	7.	0.11		
ROUTED TO	91	171.	12.20	27.	8.	7.	0.11	1278.31	12.20
2 COMBINED AT	Node64	1217.	12.50	280.	87.	70.	1.22		
ROUTED TO	R14B	1212.	12.50	280.	87.	70.	1.22		
HYDROGRAPH AT	S2Y	342.	12.30	65.	20.	16.	0.27		
ROUTED TO	90	328.	12.40	65.	20.	16.	0.27	1288.54	12.40
ROUTED TO	R25	317.	12.40	65.	20.	16.	0.27	2.25	12.40
ROUTED TO	CLV310	272.	12.60	65.	20.	16.	0.27	1265.17	12.60
HYDROGRAPH AT	S2X	112.	12.30	21.	7.	5.	0.09		
3 COMBINED AT	Node62	1557.	12.50	366.	114.	91.	1.58		
ROUTED TO	R14A	1544.	12.60	366.	114.	91.	1.58		
HYDROGRAPH AT	S2W	190.	12.30	36.	11.	9.	0.16		
2 COMBINED AT	Node57	1662.	12.60	402.	125.	100.	1.74		
ROUTED TO	R13	1659.	12.60	402.	125.	100.	1.74	106.90	12.60
HYDROGRAPH AT	S2V	287.	12.10	43.	13.	11.	0.21		
2 COMBINED AT	Node54	1749.	12.60	445.	138.	111.	1.95		
ROUTED TO	R12	1717.	12.70	445.	138.	111.	1.95	106.72	12.70
HYDROGRAPH AT	S2S	328.	12.10	44.	14.	11.	0.22		
ROUTED TO	R24B	308.	12.10	44.	14.	11.	0.22	1279.05	12.10
HYDROGRAPH AT	S2R	303.	12.10	43.	13.	11.	0.21		
2 COMBINED AT	REBEL	612.	12.10	87.	27.	22.	0.43		
ROUTED TO	56THA	609.	12.20	87.	27.	22.	0.43	1292.93	12.20
ROUTED TO	93	533.	12.30	87.	27.	22.	0.43	1278.11	12.30
ROUTED TO	S53RD	415.	12.40	87.	27.	22.	0.43	1269.03	12.40
ROUTED TO	R23A	414.	12.40	87.	27.	22.	0.43	1269.59	12.40
HYDROGRAPH AT	S2Q	200.	12.10	31.	10.	8.	0.14		

2 COMBINED AT	Node95	532.	12.30	118.	36.	29.	0.57			ROUTED TO	R18A	1004.	12.20	226.	85.	72.	1.03	1227.11	12.20
ROUTED TO	R22	530.	12.40	118.	36.	29.	0.57			HYDROGRAPH AT	S2J	427.	12.20	71.	23.	18.	0.23		
HYDROGRAPH AT	S2P	187.	12.20	35.	11.	9.	0.19			2 COMBINED AT	Node28	1431.	12.20	296.	108.	90.	1.26		
2 COMBINED AT	Node92	700.	12.30	153.	47.	38.	0.76			ROUTED TO	R17	1277.	12.30	296.	108.	90.	1.26		
ROUTED TO	R21	456.	12.70	150.	47.	38.	0.76			2 COMBINED AT	Node25	3638.	12.50	1088.	358.	291.	4.72		
HYDROGRAPH AT	S2U	231.	12.10	32.	10.	8.	0.12			ROUTED TO	R9	3643.	12.50	1088.	358.	291.	4.72	110.32	12.50
HYDROGRAPH AT	S2O	471.	12.10	70.	22.	17.	0.27			HYDROGRAPH AT	S2H	533.	12.00	58.	18.	15.	0.20		
4 COMBINED AT	40THB	2340.	12.60	692.	217.	174.	3.10			HYDROGRAPH AT	S2I1	286.	12.00	32.	10.	8.	0.11		
ROUTED TO	R11	2332.	12.70	692.	217.	174.	3.10	107.86	12.70	HYDROGRAPH AT	S2I2	337.	12.20	58.	18.	15.	0.22		
HYDROGRAPH AT	S2T	766.	12.10	104.	33.	26.	0.36			4 COMBINED AT	Node21	4004.	12.40	1232.	404.	328.	5.25		
ROUTED TO	R20	635.	12.20	104.	33.	26.	0.36			ROUTED TO	R8	3982.	12.50	1231.	404.	328.	5.25	115.26	12.50
2 COMBINED AT	Node44	2601.	12.60	793.	250.	201.	3.46			HYDROGRAPH AT	S2G	219.	12.00	27.	8.	7.	0.09		
ROUTED TO	R10	2573.	12.70	793.	250.	201.	3.46	108.25	12.70	2 COMBINED AT	ROKEBY	4022.	12.50	1257.	413.	334.	5.34		
HYDROGRAPH AT	S2M2	228.	12.30	44.	14.	11.	0.23			ROUTED TO	R7C	4024.	12.50	1257.	413.	334.	5.34	111.82	12.50
ROUTED TO	S2MDAM	37.	13.50	33.	24.	23.	0.23	1.70	13.50	HYDROGRAPH AT	S2F2	441.	12.00	52.	16.	13.	0.18		
ROUTED TO	R19B	37.	13.60	33.	24.	23.	0.23	1254.69	13.60	2 COMBINED AT	Node15	4100.	12.50	1307.	429.	347.	5.52		
HYDROGRAPH AT	S2M1	210.	12.10	32.	10.	8.	0.16			ROUTED TO	R7B	4100.	12.50	1307.	429.	347.	5.52	111.89	12.50
HYDROGRAPH AT	S2N	159.	12.30	32.	10.	8.	0.16			HYDROGRAPH AT	S2E	560.	12.10	74.	23.	19.	0.25		
3 COMBINED AT	YANKB	371.	12.20	96.	43.	39.	0.55			ROUTED TO	S2EDAM	127.	12.50	52.	23.	19.	0.25	1223.51	12.50
ROUTED TO	191	345.	12.30	96.	43.	39.	0.55	1252.98	12.30	HYDROGRAPH AT	S2F1	351.	12.00	39.	12.	10.	0.15		
ROUTED TO	R19A	320.	12.40	95.	43.	39.	0.55	1244.73	12.40	3 COMBINED AT	Node11	4280.	12.50	1397.	464.	376.	5.92		
HYDROGRAPH AT	S2L	438.	12.00	46.	15.	12.	0.17			ROUTED TO	R7A	4240.	12.60	1397.	464.	376.	5.92	112.02	12.60
2 COMBINED AT	40THA	577.	12.00	140.	58.	50.	0.72			2 COMBINED AT	27THB	4255.	12.60	1409.	469.	379.	5.99		
ROUTED TO	83	497.	12.10	140.	58.	50.	0.72	1240.90	12.10	ROUTED TO	R6B	4242.	12.60	1408.	469.	379.	5.99	116.43	12.60
ROUTED TO	R18B	483.	12.20	140.	58.	50.	0.72	1237.34	12.20	HYDROGRAPH AT	S5A	353.	12.20	57.	18.	14.	0.22		
HYDROGRAPH AT	S2K	643.	12.10	87.	27.	22.	0.31			ROUTED TO	PondS5	158.	12.50	48.	18.	14.	0.22	1268.84	12.50
2 COMBINED AT	Node31	1104.	12.10	226.	85.	72.	1.03			ROUTED TO	R33	136.	12.80	48.	18.	14.	0.22		

HYDROGRAPH AT	S5B	581.	12.20	93.	29.	23.	0.37		
2 COMBINED AT	S5up	608.	12.20	139.	46.	37.	0.59		
ROUTED TO	R32	451.	12.40	139.	46.	37.	0.59		
HYDROGRAPH AT	S5C	474.	12.10	63.	20.	16.	0.23		
2 COMBINED AT	S38th	786.	12.10	201.	66.	53.	0.82		
ROUTED TO	R31	510.	12.60	199.	66.	53.	0.82		
HYDROGRAPH AT	S5E	390.	12.00	49.	15.	12.	0.18		
ROUTED TO	R34	112.	12.40	49.	15.	12.	0.18		
HYDROGRAPH AT	S5F	618.	12.00	70.	22.	17.	0.28		
HYDROGRAPH AT	S5G	367.	12.00	39.	12.	10.	0.15		
4 COMBINED AT	RRjctn	1267.	12.00	355.	115.	93.	1.43		
HYDROGRAPH AT	S5D	841.	12.00	93.	29.	23.	0.34		
2 COMBINED AT	Saltil	2109.	12.00	447.	144.	116.	1.77		
HYDROGRAPH AT	S2B1	251.	12.00	31.	10.	8.	0.14		
3 COMBINED AT	BNSFB	5121.	12.60	1882.	623.	503.	7.90		
ROUTED TO	R6A	5065.	12.70	1882.	623.	503.	7.90		
HYDROGRAPH AT	S1G	435.	12.10	57.	18.	15.	0.19		
HYDROGRAPH AT	S1F	219.	12.30	46.	15.	12.	0.14		
2 COMBINED AT	Node12	594.	12.10	104.	33.	27.	0.33		
ROUTED TO	R5	542.	12.20	104.	33.	27.	0.33		
HYDROGRAPH AT	S1E	323.	12.10	50.	16.	13.	0.17		
ROUTED TO	27THA	122.	12.50	48.	15.	12.	0.17		
ROUTED TO	R3	102.	13.00	47.	15.	12.	0.17		
HYDROGRAPH AT	S1D	457.	12.10	65.	21.	17.	0.20		
3 COMBINED AT	Node11	970.	12.10	212.	69.	56.	0.70		
ROUTED TO	D37	861.	12.30	212.	69.	56.	0.70	1208.12	12.30
ROUTED TO	R2	835.	12.40	212.	69.	56.	0.70		
HYDROGRAPH AT	S1C	269.	12.30	50.	16.	13.	0.19		
ROUTED TO	PONDN	260.	12.30	49.	16.	13.	0.19	111.79	12.30
HYDROGRAPH AT	S1B	142.	12.10	20.	6.	5.	0.11		
2 COMBINED AT	Node14	348.	12.20	68.	22.	17.	0.30		
ROUTED TO	R4	346.	12.30	68.	22.	17.	0.30		
ROUTED TO	PONDK	276.	12.50	67.	22.	17.	0.30	93.69	12.50
2 COMBINED AT	Node10	1088.	12.40	278.	91.	73.	1.00		
ROUTED TO	R1B	1074.	12.50	278.	91.	73.	1.00		
HYDROGRAPH AT	S1A3	194.	12.20	35.	11.	9.	0.17		
2 COMBINED AT	Node9	1203.	12.50	313.	102.	82.	1.17		
DIVERSION TO	BNDitc	598.	12.50	130.	41.	33.	1.17		
HYDROGRAPH AT	Node9A	605.	12.50	183.	61.	49.	1.17		
ROUTED TO	R1A	607.	12.50	183.	61.	49.	1.17	1179.11	12.50
HYDROGRAPH AT	S1A1	324.	12.10	42.	13.	10.	0.29		
2 COMBINED AT	14TH	688.	12.40	225.	74.	59.	1.46		
HYDROGRAPH AT	S1A4	99.	12.10	14.	4.	3.	0.06		
HYDROGRAPH AT	BNDitc	598.	12.50	130.	41.	33.	0.00		
2 COMBINED AT	Yankee	639.	12.40	144.	45.	36.	0.06		
HYDROGRAPH AT	S2B2	80.	12.20	13.	4.	3.	0.07		
ROUTED TO	det-u	60.	12.40	13.	4.	3.	0.07	103.55	12.40
HYDROGRAPH AT	S2A	255.	12.10	33.	10.	8.	0.24		
HYDROGRAPH AT	S2C	886.	12.00	95.	30.	24.	0.35		
6 COMBINED AT	NULLB	6424.	12.60	2389.	786.	634.	10.08		

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

25-year Storm
for
LLCCP
Projected Conditions

25 YEAR

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	S2B3	109.	12.20	19.	6.	5.	0.07		
ROUTED TO	PONDA	106.	12.30	19.	6.	5.	0.07	121.22	12.30
ROUTED TO	R6C	22.	13.10	15.	6.	5.	0.07		
HYDROGRAPH AT	S2AD	408.	12.10	54.	17.	14.	0.17		
ROUTED TO	202	400.	12.10	54.	17.	14.	0.17	1326.22	12.10
ROUTED TO	66TH	314.	12.20	54.	17.	14.	0.17	1317.86	12.20
ROUTED TO	R16C	304.	12.30	54.	17.	14.	0.17	1343.22	12.30
HYDROGRAPH AT	S2AC	270.	12.10	38.	12.	10.	0.15		
2 COMBINED AT	Node84	528.	12.20	92.	29.	23.	0.32		
ROUTED TO	R16B	525.	12.20	92.	29.	23.	0.32	1289.49	12.20
HYDROGRAPH AT	S2AF	351.	12.30	66.	21.	17.	0.22		
ROUTED TO	R26B	351.	12.30	66.	21.	17.	0.22	1304.57	12.30
HYDROGRAPH AT	S2AE	275.	12.20	49.	15.	12.	0.17		
2 COMBINED AT	Node19	615.	12.30	115.	36.	29.	0.39		
ROUTED TO	R26A	617.	12.30	115.	36.	29.	0.39	1300.16	12.30
ROUTED TO	201	612.	12.30	115.	36.	29.	0.39	1294.80	12.30
2 COMBINED AT	R16A	1115.	12.30	207.	65.	52.	0.71		
ROUTED TO	R16A	1084.	12.30	207.	65.	52.	0.71	1285.21	12.30
HYDROGRAPH AT	S2AB	323.	12.20	54.	17.	13.	0.20		
2 COMBINED AT	Node75	1379.	12.30	261.	82.	65.	0.91		
ROUTED TO	R15	1248.	12.40	261.	82.	65.	0.91		
HYDROGRAPH AT	S2AA	236.	12.30	48.	15.	12.	0.20		
2 COMBINED AT	56THB	1476.	12.40	309.	96.	77.	1.11		
ROUTED TO	R14C	1432.	12.50	309.	96.	77.	1.11		
HYDROGRAPH AT	S2Z	213.	12.10	32.	10.	8.	0.11		
ROUTED TO	91	208.	12.20	32.	10.	8.	0.11	1279.02	12.20
2 COMBINED AT	Node64	1529.	12.50	341.	106.	85.	1.22		
ROUTED TO	R14B	1527.	12.50	341.	106.	85.	1.22		
HYDROGRAPH AT	S2Y	416.	12.30	79.	25.	20.	0.27		
ROUTED TO	90	391.	12.40	79.	25.	20.	0.27	1289.52	12.40
ROUTED TO	R25	379.	12.50	79.	25.	20.	0.27	2.41	12.50
ROUTED TO	CLV310	319.	12.70	79.	25.	20.	0.27	1265.83	12.70
HYDROGRAPH AT	S2X	137.	12.30	26.	8.	6.	0.09		
3 COMBINED AT	Node62	1927.	12.50	446.	139.	112.	1.58		
ROUTED TO	R14A	1896.	12.60	446.	139.	112.	1.58		
HYDROGRAPH AT	S2W	233.	12.30	45.	14.	11.	0.16		
2 COMBINED AT	Node57	2072.	12.50	490.	153.	123.	1.74		
ROUTED TO	R13	2058.	12.60	490.	153.	123.	1.74	107.60	12.60
HYDROGRAPH AT	S2V	358.	12.10	54.	17.	13.	0.21		
2 COMBINED AT	Node54	2166.	12.60	544.	170.	136.	1.95		
ROUTED TO	R12	2152.	12.60	544.	170.	136.	1.95	107.41	12.60
HYDROGRAPH AT	S2S	410.	12.10	54.	17.	14.	0.22		
ROUTED TO	R24B	389.	12.10	54.	17.	14.	0.22	1279.30	12.10
HYDROGRAPH AT	S2R	378.	12.10	54.	17.	13.	0.21		
2 COMBINED AT	REBEL	767.	12.10	108.	33.	27.	0.43		
ROUTED TO	56THA	743.	12.20	108.	33.	27.	0.43	1293.15	12.20
ROUTED TO	93	652.	12.30	108.	33.	27.	0.43	1279.31	12.30
ROUTED TO	S53RD	504.	12.40	108.	33.	27.	0.43	1270.02	12.40
ROUTED TO	R23A	507.	12.50	108.	33.	27.	0.43	1270.05	12.50
HYDROGRAPH AT	S2Q	247.	12.10	38.	12.	9.	0.14		

2 COMBINED AT	Node95	643.	12.30	146.	45.	36.	0.57			ROUTED TO	R18A	1169.	12.20	271.	100.	84.	1.03	1227.28	12.20
ROUTED TO	R22	640.	12.40	146.	45.	36.	0.57			HYDROGRAPH AT	S2J	499.	12.20	84.	27.	22.	0.23		
HYDROGRAPH AT	S2P	238.	12.20	44.	14.	11.	0.19			2 COMBINED AT	Node28	1668.	12.20	353.	127.	105.	1.26		
2 COMBINED AT	Node92	858.	12.30	190.	59.	47.	0.76			ROUTED TO	R17	1494.	12.30	353.	127.	105.	1.26		
ROUTED TO	R21	605.	12.70	186.	59.	47.	0.76			2 COMBINED AT	Node25	4501.	12.50	1319.	433.	351.	4.72		
HYDROGRAPH AT	S2U	277.	12.10	38.	12.	10.	0.12			ROUTED TO	R9	4503.	12.50	1319.	433.	351.	4.72	111.32	12.50
HYDROGRAPH AT	S2O	567.	12.10	84.	26.	21.	0.27			HYDROGRAPH AT	S2H	629.	12.00	68.	22.	17.	0.20		
4 COMBINED AT	40THB	2965.	12.60	848.	267.	214.	3.10			HYDROGRAPH AT	S2I1	339.	12.00	38.	12.	10.	0.11		
ROUTED TO	R11	2961.	12.60	847.	267.	214.	3.10	108.78	12.60	HYDROGRAPH AT	S2I2	405.	12.20	70.	22.	18.	0.22		
HYDROGRAPH AT	S2T	906.	12.10	123.	39.	31.	0.36			4 COMBINED AT	Node21	4928.	12.40	1490.	488.	395.	5.25		
ROUTED TO	R20	786.	12.20	123.	39.	31.	0.36			ROUTED TO	R8	4903.	12.50	1490.	488.	395.	5.25	116.30	12.50
2 COMBINED AT	Node44	3271.	12.60	967.	305.	245.	3.46			HYDROGRAPH AT	S2G	258.	12.00	31.	10.	8.	0.09		
ROUTED TO	R10	3251.	12.60	967.	305.	245.	3.46	109.15	12.60	2 COMBINED AT	ROKEBY	4950.	12.50	1521.	498.	403.	5.34		
HYDROGRAPH AT	S2M2	288.	12.30	55.	17.	14.	0.23			ROUTED TO	R7C	4954.	12.50	1521.	498.	403.	5.34	112.67	12.50
ROUTED TO	S2MDAM	44.	13.50	38.	26.	25.	0.23	2.20	13.50	HYDROGRAPH AT	S2F2	523.	12.00	61.	19.	16.	0.18		
ROUTED TO	R19B	44.	13.60	38.	26.	25.	0.23	1254.75	13.60	2 COMBINED AT	Node15	5043.	12.50	1580.	518.	418.	5.52		
HYDROGRAPH AT	S2M1	264.	12.10	40.	12.	10.	0.16			ROUTED TO	R7B	5051.	12.50	1580.	518.	418.	5.52	112.76	12.50
HYDROGRAPH AT	S2N	199.	12.30	40.	12.	10.	0.16			HYDROGRAPH AT	S2E	659.	12.10	87.	28.	22.	0.25		
3 COMBINED AT	YANKB	461.	12.20	115.	50.	44.	0.55			ROUTED TO	S2EDAM	175.	12.50	65.	27.	22.	0.25	1224.00	12.50
ROUTED TO	191	421.	12.30	115.	50.	44.	0.55	1253.81	12.30	HYDROGRAPH AT	S2F1	421.	12.00	46.	15.	12.	0.15		
ROUTED TO	R19A	393.	12.40	115.	50.	44.	0.55	1244.91	12.40	3 COMBINED AT	Node11	5288.	12.50	1690.	560.	452.	5.92		
HYDROGRAPH AT	S2L	522.	12.00	55.	17.	14.	0.17			ROUTED TO	R7A	5243.	12.50	1690.	560.	452.	5.92	112.93	12.50
2 COMBINED AT	40THA	692.	12.00	169.	68.	58.	0.72			2 COMBINED AT	27THB	5261.	12.50	1705.	565.	457.	5.99		
ROUTED TO	83	567.	12.10	169.	68.	58.	0.72	1241.65	12.10	ROUTED TO	R6B	5256.	12.60	1704.	565.	456.	5.99	117.63	12.60
ROUTED TO	R18B	554.	12.20	169.	68.	58.	0.72	1237.58	12.20	HYDROGRAPH AT	S5A	424.	12.20	68.	21.	17.	0.22		
HYDROGRAPH AT	S2K	764.	12.10	103.	33.	26.	0.31			ROUTED TO	PondS5	320.	12.40	59.	21.	17.	0.22	1269.16	12.40
2 COMBINED AT	Node31	1284.	12.10	271.	100.	84.	1.03			ROUTED TO	R33	192.	12.60	58.	21.	17.	0.22		

HYDROGRAPH AT	S5B	702.	12.20	112.	35.	28.	0.37		
2 COMBINED AT	S5up	741.	12.20	169.	56.	45.	0.59		
ROUTED TO	R32	565.	12.40	168.	56.	45.	0.59		
HYDROGRAPH AT	S5C	564.	12.10	75.	24.	19.	0.23		
2 COMBINED AT	S38th	933.	12.10	242.	80.	64.	0.82		
ROUTED TO	R31	637.	12.60	241.	80.	64.	0.82		
HYDROGRAPH AT	S5E	466.	12.00	59.	18.	15.	0.18		
ROUTED TO	R34	124.	12.40	58.	18.	15.	0.18		
HYDROGRAPH AT	S5F	747.	12.00	85.	26.	21.	0.28		
HYDROGRAPH AT	S5G	440.	12.00	47.	15.	12.	0.15		
4 COMBINED AT	RRjctn	1521.	12.00	429.	139.	112.	1.43		
HYDROGRAPH AT	S5D	1003.	12.00	111.	35.	28.	0.34		
2 COMBINED AT	Saltil	2524.	12.00	538.	174.	140.	1.77		
HYDROGRAPH AT	S2B1	310.	12.00	38.	12.	9.	0.14		
3 COMBINED AT	BNSFB	6322.	12.60	2277.	751.	606.	7.90		
ROUTED TO	R6A	6243.	12.70	2277.	751.	606.	7.90		
HYDROGRAPH AT	S1G	511.	12.10	68.	22.	17.	0.19		
HYDROGRAPH AT	S1F	254.	12.30	54.	18.	14.	0.14		
2 COMBINED AT	Node12	695.	12.10	121.	39.	31.	0.33		
ROUTED TO	R5	645.	12.20	121.	39.	31.	0.33		
HYDROGRAPH AT	S1E	381.	12.10	59.	19.	15.	0.17		
ROUTED TO	27THA	140.	12.60	57.	18.	15.	0.17		
ROUTED TO	R3	124.	13.00	56.	18.	15.	0.17		
HYDROGRAPH AT	S1D	532.	12.10	75.	25.	20.	0.20		
3 COMBINED AT	Node11	1147.	12.20	250.	82.	66.	0.70		
ROUTED TO	D37	946.	12.30	250.	82.	66.	0.70	1209.06	12.30
ROUTED TO	R2	919.	12.40	249.	82.	66.	0.70		
HYDROGRAPH AT	S1C	322.	12.20	60.	19.	15.	0.19		
ROUTED TO	PONDN	314.	12.30	59.	19.	15.	0.19	111.92	12.30
HYDROGRAPH AT	S1B	181.	12.10	25.	8.	6.	0.11		
2 COMBINED AT	Node14	431.	12.20	83.	27.	21.	0.30		
ROUTED TO	R4	432.	12.30	83.	27.	21.	0.30		
ROUTED TO	PONDK	353.	12.50	82.	27.	21.	0.30	93.94	12.50
2 COMBINED AT	Node10	1266.	12.50	330.	108.	87.	1.00		
ROUTED TO	R1B	1254.	12.50	330.	108.	87.	1.00		
HYDROGRAPH AT	S1A3	242.	12.20	43.	13.	11.	0.17		
2 COMBINED AT	Node9	1413.	12.50	373.	122.	98.	1.17		
DIVERSION TO	BNDitc	725.	12.50	161.	50.	40.	1.17		
HYDROGRAPH AT	Node9A	687.	12.50	212.	71.	57.	1.17		
ROUTED TO	R1A	688.	12.50	212.	71.	57.	1.17	1179.42	12.50
HYDROGRAPH AT	S1A1	423.	12.00	55.	17.	13.	0.29		
2 COMBINED AT	14TH	802.	12.40	267.	88.	71.	1.46		
HYDROGRAPH AT	S1A4	121.	12.10	17.	5.	4.	0.06		
HYDROGRAPH AT	BNDitc	725.	12.50	161.	50.	40.	0.00		
2 COMBINED AT	Yankee	773.	12.40	177.	55.	44.	0.06		
HYDROGRAPH AT	S2B2	101.	12.20	17.	5.	4.	0.07		
ROUTED TO	det-u	83.	12.30	16.	5.	4.	0.07	103.71	12.30
HYDROGRAPH AT	S2A	335.	12.10	43.	13.	11.	0.24		
HYDROGRAPH AT	S2C	1056.	12.00	114.	36.	29.	0.35		
6 COMBINED AT	NULLB	7917.	12.60	2892.	949.	765.	10.08		

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

50-year Storm
for
LLCCP
Projected Conditions

50 YEAR

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	S2B3	128.	12.20	22.	7.	6.	0.07		
ROUTED TO	PONDA	125.	12.30	22.	7.	6.	0.07	121.43	12.30
ROUTED TO	R6C	26.	13.10	18.	7.	5.	0.07		
HYDROGRAPH AT	S2AD	470.	12.10	62.	20.	16.	0.17		
ROUTED TO	202	461.	12.10	62.	20.	16.	0.17	1326.34	12.10
ROUTED TO	66TH	419.	12.20	62.	20.	16.	0.17	1318.44	12.20
ROUTED TO	R16C	367.	12.30	62.	20.	16.	0.17	1343.37	12.30
HYDROGRAPH AT	S2AC	320.	12.10	45.	14.	11.	0.15		
2 COMBINED AT	Node84	636.	12.20	108.	34.	27.	0.32		
ROUTED TO	R16B	621.	12.20	108.	34.	27.	0.32	1289.63	12.20
HYDROGRAPH AT	S2AF	408.	12.30	77.	24.	19.	0.22		
ROUTED TO	R26B	409.	12.30	77.	24.	19.	0.22	1304.73	12.30
HYDROGRAPH AT	S2AE	322.	12.20	57.	18.	14.	0.17		
2 COMBINED AT	Node19	717.	12.30	134.	42.	34.	0.39		
ROUTED TO	R26A	722.	12.30	134.	42.	34.	0.39	1300.48	12.30
ROUTED TO	201	718.	12.30	134.	42.	34.	0.39	1294.93	12.30
2 COMBINED AT	R16A	1323.	12.30	241.	76.	61.	0.71		
ROUTED TO	R16A	1293.	12.30	241.	76.	61.	0.71	1285.35	12.30
HYDROGRAPH AT	S2AB	381.	12.20	64.	20.	16.	0.20		
2 COMBINED AT	Node75	1639.	12.30	305.	95.	77.	0.91		
ROUTED TO	R15	1480.	12.40	305.	95.	77.	0.91		
HYDROGRAPH AT	S2AA	283.	12.30	57.	18.	14.	0.20		
2 COMBINED AT	56THB	1752.	12.40	362.	113.	91.	1.11		
ROUTED TO	R14C	1699.	12.50	362.	113.	91.	1.11		
HYDROGRAPH AT	S2Z	248.	12.10	38.	12.	9.	0.11		
ROUTED TO	91	242.	12.20	38.	12.	9.	0.11	1279.68	12.20
2 COMBINED AT	Node64	1814.	12.50	399.	125.	100.	1.22		
ROUTED TO	R14B	1821.	12.50	399.	125.	100.	1.22		
HYDROGRAPH AT	S2Y	485.	12.30	92.	29.	23.	0.27		
ROUTED TO	90	439.	12.40	92.	29.	23.	0.27	1290.34	12.40
ROUTED TO	R25	430.	12.50	92.	29.	23.	0.27	2.54	12.50
ROUTED TO	CLV310	408.	12.60	92.	29.	23.	0.27	1266.17	12.60
HYDROGRAPH AT	S2X	160.	12.30	30.	9.	8.	0.09		
3 COMBINED AT	Node62	2277.	12.50	521.	163.	131.	1.58		
ROUTED TO	R14A	2266.	12.50	521.	163.	131.	1.58		
HYDROGRAPH AT	S2W	273.	12.30	52.	16.	13.	0.16		
2 COMBINED AT	Node57	2475.	12.50	573.	180.	144.	1.74		
ROUTED TO	R13	2444.	12.60	573.	180.	144.	1.74	108.27	12.60
HYDROGRAPH AT	S2V	426.	12.10	63.	20.	16.	0.21		
2 COMBINED AT	Node54	2578.	12.50	637.	199.	160.	1.95		
ROUTED TO	R12	2572.	12.60	636.	199.	160.	1.95	108.07	12.60
HYDROGRAPH AT	S2S	487.	12.10	65.	20.	16.	0.22		
ROUTED TO	R24B	465.	12.10	65.	20.	16.	0.22	1279.53	12.10
HYDROGRAPH AT	S2R	449.	12.10	63.	20.	16.	0.21		
2 COMBINED AT	REBEL	914.	12.10	128.	40.	32.	0.43		
ROUTED TO	56THA	878.	12.20	128.	40.	32.	0.43	1293.31	12.20
ROUTED TO	93	747.	12.30	128.	40.	32.	0.43	1280.21	12.30
ROUTED TO	S53RD	574.	12.50	128.	40.	32.	0.43	1270.76	12.50
ROUTED TO	R23A	574.	12.50	128.	40.	32.	0.43	1270.30	12.50
HYDROGRAPH AT	S2Q	292.	12.10	45.	14.	11.	0.14		

2 COMBINED AT	Node95	730.	12.30	172.	53.	43.	0.57	
ROUTED TO	R22	725.	12.40	172.	53.	43.	0.57	
HYDROGRAPH AT	S2P	287.	12.20	53.	16.	13.	0.19	
2 COMBINED AT	Node92	996.	12.30	225.	70.	56.	0.76	
ROUTED TO	R21	716.	12.70	221.	70.	56.	0.76	
HYDROGRAPH AT	S2U	320.	12.10	44.	14.	11.	0.12	
HYDROGRAPH AT	S2O	658.	12.10	97.	30.	24.	0.27	
4 COMBINED AT	40THB	3535.	12.60	994.	313.	251.	3.10	
ROUTED TO	R11	3536.	12.60	994.	313.	251.	3.10	109.51 12.60
HYDROGRAPH AT	S2T	1036.	12.10	141.	45.	36.	0.36	
ROUTED TO	R20	919.	12.20	141.	45.	36.	0.36	
2 COMBINED AT	Node44	3932.	12.50	1131.	358.	287.	3.46	
ROUTED TO	R10	3896.	12.60	1131.	358.	287.	3.46	109.96 12.60
HYDROGRAPH AT	S2M2	344.	12.30	66.	20.	16.	0.23	
ROUTED TO	S2MDAM	52.	13.50	44.	28.	26.	0.23	2.61 13.50
ROUTED TO	R19B	52.	13.60	44.	28.	26.	0.23	1254.81 13.60
HYDROGRAPH AT	S2M1	315.	12.10	47.	15.	12.	0.16	
HYDROGRAPH AT	S2N	237.	12.30	47.	15.	12.	0.16	
3 COMBINED AT	YANKB	546.	12.20	135.	57.	50.	0.55	
ROUTED TO	191	484.	12.30	135.	57.	50.	0.55	1254.47 12.30
ROUTED TO	R19A	457.	12.40	135.	57.	50.	0.55	1245.04 12.40
HYDROGRAPH AT	S2L	599.	12.00	64.	20.	16.	0.17	
2 COMBINED AT	40THA	792.	12.00	197.	77.	66.	0.72	
ROUTED TO	83	662.	12.10	197.	77.	66.	0.72	1242.08 12.10
ROUTED TO	R18B	639.	12.20	197.	77.	66.	0.72	1237.84 12.20
HYDROGRAPH AT	S2K	876.	12.10	119.	38.	30.	0.31	
2 COMBINED AT	Node31	1466.	12.10	314.	115.	96.	1.03	
ROUTED TO	R18A	1334.	12.20	313.	115.	96.	1.03	1227.44 12.20
HYDROGRAPH AT	S2J	567.	12.20	95.	31.	25.	0.23	
2 COMBINED AT	Node28	1901.	12.20	407.	146.	120.	1.26	
ROUTED TO	R17	1725.	12.30	407.	146.	120.	1.26	
2 COMBINED AT	Node25	5306.	12.40	1537.	504.	408.	4.72	
ROUTED TO	R9	5310.	12.50	1537.	504.	407.	4.72	112.09 12.50
HYDROGRAPH AT	S2H	719.	12.00	78.	25.	20.	0.20	
HYDROGRAPH AT	S2I1	387.	12.00	43.	14.	11.	0.11	
HYDROGRAPH AT	S2I2	468.	12.20	81.	25.	20.	0.22	
4 COMBINED AT	Node21	5845.	12.40	1734.	568.	459.	5.25	
ROUTED TO	R8	5794.	12.50	1734.	568.	459.	5.25	117.23 12.50
HYDROGRAPH AT	S2G	295.	12.00	36.	11.	9.	0.09	
2 COMBINED AT	ROKEBY	5847.	12.50	1769.	579.	468.	5.34	
ROUTED TO	R7C	5868.	12.50	1769.	579.	468.	5.34	113.49 12.50
HYDROGRAPH AT	S2F2	598.	12.00	70.	22.	18.	0.18	
2 COMBINED AT	Node15	5968.	12.50	1837.	601.	486.	5.52	
ROUTED TO	R7B	5985.	12.50	1837.	601.	486.	5.52	113.57 12.50
HYDROGRAPH AT	S2E	751.	12.10	100.	32.	26.	0.25	
ROUTED TO	S2EDAM	347.	12.30	77.	32.	25.	0.25	1224.19 12.30
HYDROGRAPH AT	S2F1	485.	12.00	54.	17.	14.	0.15	
3 COMBINED AT	Node11	6310.	12.50	1967.	650.	525.	5.92	
ROUTED TO	R7A	6308.	12.50	1967.	650.	524.	5.92	113.78 12.50
2 COMBINED AT	27THB	6329.	12.50	1984.	657.	530.	5.99	
ROUTED TO	R6B	6272.	12.60	1983.	656.	530.	5.99	118.74 12.60
HYDROGRAPH AT	S5A	491.	12.20	79.	25.	20.	0.22	
ROUTED TO	PondS5	420.	12.30	69.	25.	20.	0.22	1269.27 12.30
ROUTED TO	R33	267.	12.50	68.	25.	20.	0.22	

HYDROGRAPH AT	S5B	814.	12.20	130.	41.	33.	0.37		
2 COMBINED AT	S5up	869.	12.20	197.	66.	53.	0.59		
ROUTED TO	R32	712.	12.40	197.	66.	53.	0.59		
HYDROGRAPH AT	S5C	649.	12.10	86.	27.	22.	0.23		
2 COMBINED AT	S38th	1070.	12.10	282.	93.	74.	0.82		
ROUTED TO	R31	796.	12.60	281.	93.	74.	0.82		
HYDROGRAPH AT	S5E	537.	12.00	67.	21.	17.	0.18		
ROUTED TO	R34	136.	12.40	67.	21.	17.	0.18		
HYDROGRAPH AT	S5F	867.	12.00	98.	31.	25.	0.28		
HYDROGRAPH AT	S5G	508.	12.00	54.	17.	14.	0.15		
4 COMBINED AT	RRjctn	1766.	12.00	498.	162.	130.	1.43		
HYDROGRAPH AT	S5D	1152.	12.00	127.	40.	32.	0.34		
2 COMBINED AT	Saltil	2918.	12.00	624.	202.	162.	1.77		
HYDROGRAPH AT	S2B1	365.	12.00	45.	14.	11.	0.14		
3 COMBINED AT	BNSFB	7586.	12.50	2648.	872.	703.	7.90		
ROUTED TO	R6A	7563.	12.60	2648.	872.	703.	7.90		
HYDROGRAPH AT	S1G	580.	12.10	77.	25.	20.	0.19		
HYDROGRAPH AT	S1F	286.	12.30	61.	20.	16.	0.14		
2 COMBINED AT	Node12	788.	12.10	138.	45.	36.	0.33		
ROUTED TO	R5	733.	12.20	138.	45.	36.	0.33		
HYDROGRAPH AT	S1E	435.	12.10	68.	22.	17.	0.17		
ROUTED TO	27THA	145.	12.60	66.	21.	17.	0.17		
ROUTED TO	R3	134.	13.20	65.	21.	17.	0.17		
HYDROGRAPH AT	S1D	600.	12.10	85.	28.	22.	0.20		
3 COMBINED AT	Node11	1322.	12.10	284.	93.	75.	0.70		
ROUTED TO	D37	1038.	12.30	284.	93.	75.	0.70	1210.04	12.30
ROUTED TO	R2	1000.	12.50	284.	93.	75.	0.70		
HYDROGRAPH AT	S1C	373.	12.20	70.	22.	18.	0.19		
ROUTED TO	PONDN	363.	12.30	68.	22.	18.	0.19	112.03	12.30
HYDROGRAPH AT	S1B	218.	12.10	30.	9.	7.	0.11		
2 COMBINED AT	Node14	508.	12.20	98.	31.	25.	0.30		
ROUTED TO	R4	500.	12.30	98.	31.	25.	0.30		
ROUTED TO	PONDK	426.	12.50	97.	31.	25.	0.30	94.14	12.50
2 COMBINED AT	Node10	1426.	12.50	379.	124.	100.	1.00		
ROUTED TO	R1B	1398.	12.50	379.	124.	100.	1.00		
HYDROGRAPH AT	S1A3	288.	12.20	51.	16.	13.	0.17		
2 COMBINED AT	Node9	1585.	12.50	430.	140.	113.	1.17		
DIVERSION TO	BNDitc	832.	12.50	190.	59.	47.	1.17		
HYDROGRAPH AT	Node9A	753.	12.50	240.	81.	65.	1.17		
ROUTED TO	R1A	754.	12.50	240.	81.	65.	1.17	1179.67	12.50
HYDROGRAPH AT	S1A1	525.	12.00	67.	20.	16.	0.29		
2 COMBINED AT	14TH	939.	12.10	307.	102.	82.	1.46		
HYDROGRAPH AT	S1A4	142.	12.10	20.	6.	5.	0.06		
HYDROGRAPH AT	BNDitc	832.	12.50	190.	59.	47.	0.00		
2 COMBINED AT	Yankee	892.	12.40	209.	65.	52.	0.06		
HYDROGRAPH AT	S2B2	121.	12.20	20.	6.	5.	0.07		
ROUTED TO	det-u	106.	12.30	20.	6.	5.	0.07	103.88	12.30
HYDROGRAPH AT	S2A	417.	12.00	53.	16.	13.	0.24		
HYDROGRAPH AT	S2C	1212.	12.00	131.	41.	33.	0.35		
6 COMBINED AT	NULLB	9508.	12.60	3364.	1103.	888.	10.08		

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

100-year Storm
for
LLCCP
Projected Conditions

100 YEAR

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	S2B3	150.	12.20	26.	8.	6.	0.07		
ROUTED TO	PONDA	145.	12.30	26.	8.	6.	0.07	121.64	12.30
ROUTED TO	R6C	30.	13.10	21.	8.	6.	0.07		
HYDROGRAPH AT	S2AD	537.	12.10	71.	23.	18.	0.17		
ROUTED TO	202	535.	12.10	71.	23.	18.	0.17	1326.43	12.10
ROUTED TO	66TH	498.	12.20	71.	23.	18.	0.17	1318.65	12.20
ROUTED TO	R16C	440.	12.20	71.	23.	18.	0.17	1343.52	12.20
HYDROGRAPH AT	S2AC	376.	12.10	53.	16.	13.	0.15		
2 COMBINED AT	Node84	774.	12.20	124.	39.	31.	0.32		
ROUTED TO	R16B	752.	12.20	124.	39.	31.	0.32	1289.81	12.20
HYDROGRAPH AT	S2AF	470.	12.30	89.	28.	22.	0.22		
ROUTED TO	R26B	470.	12.30	89.	28.	22.	0.22	1304.90	12.30
HYDROGRAPH AT	S2AE	374.	12.20	66.	21.	17.	0.17		
2 COMBINED AT	Node19	827.	12.30	154.	49.	39.	0.39		
ROUTED TO	R26A	833.	12.30	154.	49.	39.	0.39	1300.72	12.30
ROUTED TO	201	838.	12.30	154.	49.	39.	0.39	1295.09	12.30
2 COMBINED AT	R16A	1554.	12.30	279.	88.	70.	0.71		
ROUTED TO	R16A	1521.	12.30	279.	88.	70.	0.71	1285.51	12.30
HYDROGRAPH AT	S2AB	443.	12.20	74.	23.	19.	0.20		
2 COMBINED AT	Node75	1924.	12.30	352.	111.	89.	0.91		
ROUTED TO	R15	1684.	12.40	352.	111.	89.	0.91		
HYDROGRAPH AT	S2AA	335.	12.30	67.	21.	17.	0.20		
2 COMBINED AT	56THB	2004.	12.40	419.	132.	106.	1.11		
ROUTED TO	R14C	1960.	12.50	419.	132.	106.	1.11		
HYDROGRAPH AT	S2Z	287.	12.10	43.	14.	11.	0.11		
ROUTED TO	91	268.	12.20	43.	14.	11.	0.11	1280.19	12.20
2 COMBINED AT	Node64	2095.	12.50	462.	145.	117.	1.22		
ROUTED TO	R14B	2091.	12.50	462.	145.	117.	1.22		
HYDROGRAPH AT	S2Y	560.	12.30	107.	34.	27.	0.27		
ROUTED TO	90	488.	12.40	107.	34.	27.	0.27	1291.18	12.40
ROUTED TO	R25	480.	12.50	107.	34.	27.	0.27	2.66	12.50
ROUTED TO	CLV310	467.	12.60	107.	34.	27.	0.27	1266.29	12.60
HYDROGRAPH AT	S2X	186.	12.30	35.	11.	9.	0.09		
3 COMBINED AT	Node62	2668.	12.50	604.	190.	152.	1.58		
ROUTED TO	R14A	2638.	12.50	604.	190.	152.	1.58		
HYDROGRAPH AT	S2W	317.	12.30	60.	19.	15.	0.16		
2 COMBINED AT	Node57	2881.	12.50	664.	209.	167.	1.74		
ROUTED TO	R13	2847.	12.50	664.	209.	167.	1.74	108.84	12.50
HYDROGRAPH AT	S2V	500.	12.10	74.	23.	18.	0.21		
2 COMBINED AT	Node54	3040.	12.50	738.	232.	186.	1.95		
ROUTED TO	R12	3017.	12.60	738.	232.	186.	1.95	108.69	12.60
HYDROGRAPH AT	S2S	572.	12.10	76.	24.	19.	0.22		
ROUTED TO	R24B	549.	12.10	76.	24.	19.	0.22	1279.75	12.10
HYDROGRAPH AT	S2R	526.	12.10	74.	23.	18.	0.21		
2 COMBINED AT	REBEL	1075.	12.10	150.	47.	37.	0.43		
ROUTED TO	56THA	1042.	12.10	150.	47.	37.	0.43	1293.46	12.10
ROUTED TO	93	830.	12.30	150.	47.	37.	0.43	1281.10	12.30
ROUTED TO	S53RD	646.	12.50	150.	47.	37.	0.43	1271.48	12.50
ROUTED TO	R23A	643.	12.50	150.	47.	37.	0.43	1270.53	12.50
HYDROGRAPH AT	S2Q	340.	12.10	52.	16.	13.	0.14		

2 COMBINED AT	Node95	813.	12.30	202.	63.	50.	0.57	
ROUTED TO	R22	806.	12.40	201.	63.	50.	0.57	
HYDROGRAPH AT	S2P	341.	12.20	62.	19.	15.	0.19	
2 COMBINED AT	Node92	1136.	12.30	263.	82.	66.	0.76	
ROUTED TO	R21	814.	12.70	259.	82.	66.	0.76	
HYDROGRAPH AT	S2U	366.	12.10	50.	16.	13.	0.12	
HYDROGRAPH AT	S2O	755.	12.10	111.	35.	28.	0.27	
4 COMBINED AT	40THB	4107.	12.60	1153.	365.	293.	3.10	
ROUTED TO	R11	4116.	12.60	1153.	365.	293.	3.10	110.21 12.60
HYDROGRAPH AT	S2T	1175.	12.10	160.	51.	41.	0.36	
ROUTED TO	R20	1060.	12.20	160.	51.	41.	0.36	
2 COMBINED AT	Node44	4603.	12.50	1310.	416.	334.	3.46	
ROUTED TO	R10	4544.	12.60	1310.	416.	334.	3.46	110.65 12.60
HYDROGRAPH AT	S2M2	406.	12.30	77.	24.	19.	0.23	
ROUTED TO	S2MDAM	61.	13.40	51.	31.	29.	0.23	3.06 13.50
ROUTED TO	R19B	61.	13.60	51.	31.	28.	0.23	1254.88 13.60
HYDROGRAPH AT	S2M1	371.	12.10	55.	17.	14.	0.16	
HYDROGRAPH AT	S2N	280.	12.30	55.	17.	14.	0.16	
3 COMBINED AT	YANKB	639.	12.20	157.	65.	56.	0.55	
ROUTED TO	191	551.	12.30	157.	65.	56.	0.55	1255.16 12.30
ROUTED TO	R19A	526.	12.50	157.	65.	56.	0.55	1245.18 12.50
HYDROGRAPH AT	S2L	682.	12.00	73.	23.	19.	0.17	
2 COMBINED AT	40THA	899.	12.00	228.	88.	74.	0.72	
ROUTED TO	83	818.	12.10	228.	88.	74.	0.72	1242.33 12.10
ROUTED TO	R18B	743.	12.20	227.	88.	74.	0.72	1238.11 12.20
HYDROGRAPH AT	S2K	996.	12.10	135.	43.	35.	0.31	
2 COMBINED AT	Node31	1695.	12.10	361.	131.	109.	1.03	
ROUTED TO	R18A	1542.	12.20	361.	131.	109.	1.03	1227.59 12.20
HYDROGRAPH AT	S2J	639.	12.20	107.	35.	28.	0.23	
2 COMBINED AT	Node28	2181.	12.20	467.	166.	136.	1.26	
ROUTED TO	R17	1997.	12.30	466.	166.	136.	1.26	
2 COMBINED AT	Node25	6234.	12.40	1775.	582.	470.	4.72	
ROUTED TO	R9	6215.	12.40	1775.	582.	470.	4.72	112.76 12.40
HYDROGRAPH AT	S2H	815.	12.00	89.	28.	23.	0.20	
HYDROGRAPH AT	S2I1	439.	12.00	49.	16.	13.	0.11	
HYDROGRAPH AT	S2I2	536.	12.20	92.	29.	23.	0.22	
4 COMBINED AT	Node21	6850.	12.40	2001.	655.	529.	5.25	
ROUTED TO	R8	6796.	12.40	2000.	655.	529.	5.25	118.18 12.40
HYDROGRAPH AT	S2G	334.	12.00	41.	13.	10.	0.09	
2 COMBINED AT	ROKEBY	6877.	12.40	2040.	668.	539.	5.34	
ROUTED TO	R7C	6859.	12.40	2040.	668.	539.	5.34	114.13 12.40
HYDROGRAPH AT	S2F2	679.	12.00	80.	26.	21.	0.18	
2 COMBINED AT	Node15	7010.	12.40	2118.	693.	560.	5.52	
ROUTED TO	R7B	6994.	12.50	2118.	693.	560.	5.52	114.22 12.50
HYDROGRAPH AT	S2E	850.	12.10	113.	36.	29.	0.25	
ROUTED TO	S2EDAM	493.	12.30	91.	36.	29.	0.25	1224.35 12.30
HYDROGRAPH AT	S2F1	554.	12.00	61.	19.	16.	0.15	
3 COMBINED AT	Node11	7474.	12.40	2269.	748.	604.	5.92	
ROUTED TO	R7A	7428.	12.50	2268.	748.	604.	5.92	114.50 12.50
2 COMBINED AT	27THB	7453.	12.50	2288.	756.	610.	5.99	
ROUTED TO	R6B	7398.	12.50	2288.	756.	610.	5.99	119.83 12.50
HYDROGRAPH AT	S5A	563.	12.20	91.	29.	23.	0.22	
ROUTED TO	PondS5	529.	12.30	80.	29.	23.	0.22	1269.39 12.30
ROUTED TO	R33	340.	12.50	80.	29.	23.	0.22	

HYDROGRAPH AT	S5B	936.	12.20	149.	47.	38.	0.37	
2 COMBINED AT	S5up	1033.	12.20	228.	76.	61.	0.59	
ROUTED TO	R32	889.	12.40	227.	76.	61.	0.59	
HYDROGRAPH AT	S5C	739.	12.10	98.	31.	25.	0.23	
2 COMBINED AT	S38th	1253.	12.20	325.	107.	86.	0.82	
ROUTED TO	R31	967.	12.60	324.	107.	86.	0.82	
HYDROGRAPH AT	S5E	613.	12.00	77.	24.	20.	0.18	
ROUTED TO	R34	148.	12.40	76.	24.	20.	0.18	
HYDROGRAPH AT	S5F	997.	12.00	113.	36.	29.	0.28	
HYDROGRAPH AT	S5G	582.	12.00	62.	20.	16.	0.15	
4 COMBINED AT	RRjctn	2032.	12.00	573.	186.	150.	1.43	
HYDROGRAPH AT	S5D	1313.	12.00	146.	46.	37.	0.34	
2 COMBINED AT	Saltil	3346.	12.00	717.	233.	187.	1.77	
HYDROGRAPH AT	S2B1	426.	12.00	52.	16.	13.	0.14	
3 COMBINED AT	BNSFB	9004.	12.50	3052.	1005.	810.	7.90	
ROUTED TO	R6A	8942.	12.60	3052.	1005.	810.	7.90	
HYDROGRAPH AT	S1G	655.	12.10	87.	28.	23.	0.19	
HYDROGRAPH AT	S1F	321.	12.30	68.	22.	18.	0.14	
2 COMBINED AT	Node12	889.	12.10	155.	51.	41.	0.33	
ROUTED TO	R5	828.	12.20	155.	51.	41.	0.33	
HYDROGRAPH AT	S1E	493.	12.10	77.	25.	20.	0.17	
ROUTED TO	27THA	151.	12.60	74.	24.	19.	0.17	
ROUTED TO	R3	141.	13.40	74.	24.	19.	0.17	
HYDROGRAPH AT	S1D	673.	12.10	96.	31.	25.	0.20	
3 COMBINED AT	Node11	1505.	12.10	321.	106.	85.	0.70	
ROUTED TO	D37	1190.	12.30	321.	106.	85.	0.70	1210.68 12.30
ROUTED TO	R2	1123.	12.40	321.	106.	85.	0.70	
HYDROGRAPH AT	S1C	427.	12.20	80.	25.	20.	0.19	
ROUTED TO	PONDN	416.	12.30	79.	25.	20.	0.19	112.15 12.30
HYDROGRAPH AT	S1B	258.	12.10	35.	11.	9.	0.11	
2 COMBINED AT	Node14	590.	12.20	114.	36.	29.	0.30	
ROUTED TO	R4	574.	12.30	114.	36.	29.	0.30	
ROUTED TO	PONDK	506.	12.50	112.	36.	29.	0.30	94.34 12.50
2 COMBINED AT	Node10	1626.	12.40	431.	142.	114.	1.00	
ROUTED TO	R1B	1581.	12.50	431.	142.	114.	1.00	
HYDROGRAPH AT	S1A3	339.	12.20	60.	19.	15.	0.17	
2 COMBINED AT	Node9	1799.	12.50	491.	160.	129.	1.17	
DIVERSION TO	BNDitc	970.	12.50	222.	69.	55.	1.17	
HYDROGRAPH AT	Node9A	829.	12.50	269.	92.	74.	1.17	
ROUTED TO	R1A	826.	12.50	269.	92.	74.	1.17	1179.88 12.50
HYDROGRAPH AT	S1A1	638.	12.00	80.	25.	20.	0.29	
2 COMBINED AT	14TH	1105.	12.10	349.	116.	93.	1.46	
HYDROGRAPH AT	S1A4	165.	12.10	23.	7.	6.	0.06	
HYDROGRAPH AT	BNDitc	970.	12.50	222.	69.	55.	0.00	
2 COMBINED AT	Yankee	1021.	12.50	245.	76.	61.	0.06	
HYDROGRAPH AT	S2B2	142.	12.20	23.	7.	6.	0.07	
ROUTED TO	det-u	127.	12.30	23.	7.	6.	0.07	104.03 12.30
HYDROGRAPH AT	S2A	509.	12.00	64.	20.	16.	0.24	
HYDROGRAPH AT	S2C	1381.	12.00	150.	48.	38.	0.35	
6 COMBINED AT	NULLB	11254.	12.50	3879.	1272.	1024.	10.08	

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

500-year Storm
for
LLCCP
Projected Conditions

500 YEAR

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	S2B3	198.	12.20	34.	11.	9.	0.07		
ROUTED TO	PONDA	192.	12.30	34.	11.	9.	0.07	122.11	12.30
ROUTED TO	R6C	40.	13.10	28.	11.	9.	0.07		
HYDROGRAPH AT	S2AD	687.	12.10	92.	29.	24.	0.17		
ROUTED TO	202	699.	12.10	92.	29.	24.	0.17	1326.60	12.10
ROUTED TO	66TH	716.	12.10	92.	29.	24.	0.17	1319.14	12.10
ROUTED TO	R16C	638.	12.20	92.	29.	24.	0.17	1343.87	12.20
HYDROGRAPH AT	S2AC	501.	12.10	70.	22.	18.	0.15		
2 COMBINED AT	Node84	1081.	12.20	162.	51.	41.	0.32		
ROUTED TO	R16B	1064.	12.20	162.	51.	41.	0.32	1290.17	12.20
HYDROGRAPH AT	S2AF	608.	12.30	115.	36.	29.	0.22		
ROUTED TO	R26B	610.	12.30	115.	36.	29.	0.22	1305.22	12.30
HYDROGRAPH AT	S2AE	489.	12.20	86.	27.	22.	0.17		
2 COMBINED AT	Node19	1076.	12.30	201.	64.	51.	0.39		
ROUTED TO	R26A	1080.	12.30	201.	64.	51.	0.39	1301.11	12.30
ROUTED TO	201	1091.	12.30	201.	64.	51.	0.39	1295.38	12.30
2 COMBINED AT	R16A	2086.	12.20	363.	115.	92.	0.71		
ROUTED TO	R16A	2051.	12.30	363.	115.	92.	0.71	1285.83	12.30
HYDROGRAPH AT	S2AB	585.	12.20	97.	31.	25.	0.20		
2 COMBINED AT	Node75	2579.	12.30	460.	146.	117.	0.91		
ROUTED TO	R15	2201.	12.40	460.	146.	117.	0.91		
HYDROGRAPH AT	S2AA	452.	12.30	90.	28.	23.	0.20		
2 COMBINED AT	56THB	2631.	12.40	550.	174.	139.	1.11		
ROUTED TO	R14C	2541.	12.50	550.	174.	139.	1.11		
HYDROGRAPH AT	S2Z	374.	12.10	57.	18.	14.	0.11		
ROUTED TO	91	323.	12.20	57.	18.	14.	0.11	1281.25	12.20
2 COMBINED AT	Node64	2754.	12.50	606.	192.	154.	1.22		
ROUTED TO	R14B	2768.	12.50	606.	192.	154.	1.22		
HYDROGRAPH AT	S2Y	728.	12.30	139.	44.	35.	0.27		
ROUTED TO	90	609.	12.40	139.	44.	35.	0.27	1293.22	12.40
ROUTED TO	R25	598.	12.50	139.	44.	35.	0.27	2.96	12.50
ROUTED TO	CLV310	602.	12.50	139.	44.	35.	0.27	1266.46	12.50
HYDROGRAPH AT	S2X	243.	12.20	45.	14.	12.	0.09		
3 COMBINED AT	Node62	3545.	12.50	790.	250.	200.	1.58		
ROUTED TO	R14A	3522.	12.50	790.	250.	200.	1.58		
HYDROGRAPH AT	S2W	417.	12.30	79.	25.	20.	0.16		
2 COMBINED AT	Node57	3839.	12.50	869.	275.	221.	1.74		
ROUTED TO	R13	3777.	12.50	869.	275.	221.	1.74	110.08	12.50
HYDROGRAPH AT	S2V	668.	12.10	98.	31.	25.	0.21		
2 COMBINED AT	Node54	4029.	12.50	967.	306.	245.	1.95		
ROUTED TO	R12	3974.	12.60	967.	306.	245.	1.95	109.85	12.60
HYDROGRAPH AT	S2S	764.	12.10	101.	32.	25.	0.22		
ROUTED TO	R24B	740.	12.10	101.	32.	25.	0.22	1280.18	12.10
HYDROGRAPH AT	S2R	701.	12.10	98.	31.	25.	0.21		
2 COMBINED AT	REBEL	1441.	12.10	200.	62.	50.	0.43		
ROUTED TO	56THA	1376.	12.20	200.	62.	50.	0.43	1293.88	12.20
ROUTED TO	93	1013.	12.30	200.	62.	50.	0.43	1283.02	12.30
ROUTED TO	S53RD	839.	12.60	200.	62.	50.	0.43	1272.48	12.60
ROUTED TO	R23A	837.	12.60	200.	62.	50.	0.43	1271.05	12.60
HYDROGRAPH AT	S2Q	450.	12.10	68.	21.	17.	0.14		

2 COMBINED AT	Node95	991.	12.50	268.	84.	67.	0.57	
ROUTED TO	R22	985.	12.50	267.	84.	67.	0.57	
HYDROGRAPH AT	S2P	464.	12.20	84.	26.	21.	0.19	
2 COMBINED AT	Node92	1430.	12.30	351.	110.	88.	0.76	
ROUTED TO	R21	1089.	12.70	346.	110.	88.	0.76	
HYDROGRAPH AT	S2U	469.	12.10	65.	21.	17.	0.12	
HYDROGRAPH AT	S2O	973.	12.10	143.	46.	37.	0.27	
4 COMBINED AT	40THB	5431.	12.50	1515.	482.	387.	3.10	
ROUTED TO	R11	5428.	12.60	1515.	482.	387.	3.10	111.54 12.60
HYDROGRAPH AT	S2T	1486.	12.10	203.	65.	53.	0.36	
ROUTED TO	R20	1345.	12.20	203.	65.	53.	0.36	
2 COMBINED AT	Node44	5976.	12.50	1715.	547.	439.	3.46	
ROUTED TO	R10	5950.	12.60	1714.	547.	439.	3.46	111.96 12.60
HYDROGRAPH AT	S2M2	547.	12.30	103.	32.	26.	0.23	
ROUTED TO	S2MDAM	96.	13.30	69.	37.	34.	0.23	4.08 13.30
ROUTED TO	R19B	95.	13.40	68.	37.	34.	0.23	1255.06 13.40
HYDROGRAPH AT	S2M1	498.	12.10	74.	23.	18.	0.16	
HYDROGRAPH AT	S2N	375.	12.30	73.	23.	18.	0.16	
3 COMBINED AT	YANKB	852.	12.20	209.	83.	71.	0.55	
ROUTED TO	191	663.	12.40	209.	83.	71.	0.55	1256.59 12.40
ROUTED TO	R19A	652.	12.50	209.	83.	70.	0.55	1245.35 12.50
HYDROGRAPH AT	S2L	867.	12.00	93.	30.	24.	0.17	
2 COMBINED AT	40THA	1141.	12.00	299.	113.	94.	0.72	
ROUTED TO	83	1084.	12.10	299.	113.	94.	0.72	1242.59 12.10
ROUTED TO	R18B	965.	12.20	299.	113.	94.	0.72	1238.54 12.20
HYDROGRAPH AT	S2K	1264.	12.10	172.	55.	44.	0.31	
2 COMBINED AT	Node31	2229.	12.10	468.	168.	139.	1.03	
ROUTED TO	R18A	2010.	12.20	468.	168.	138.	1.03	1227.89 12.20
HYDROGRAPH AT	S2J	799.	12.20	135.	44.	35.	0.23	
2 COMBINED AT	Node28	2809.	12.20	601.	212.	174.	1.26	
ROUTED TO	R17	2591.	12.30	601.	212.	174.	1.26	
2 COMBINED AT	Node25	8213.	12.40	2314.	760.	613.	4.72	
ROUTED TO	R9	8242.	12.40	2314.	760.	613.	4.72	114.03 12.40
HYDROGRAPH AT	S2H	1028.	12.00	113.	36.	29.	0.20	
HYDROGRAPH AT	S2I1	554.	12.00	62.	20.	16.	0.11	
HYDROGRAPH AT	S2I2	687.	12.20	119.	38.	30.	0.22	
4 COMBINED AT	Node21	9048.	12.30	2603.	854.	689.	5.25	
ROUTED TO	R8	9078.	12.40	2602.	854.	688.	5.25	120.09 12.40
HYDROGRAPH AT	S2G	421.	12.00	51.	17.	13.	0.09	
2 COMBINED AT	ROKEBY	9179.	12.40	2652.	870.	702.	5.34	
ROUTED TO	R7C	9197.	12.40	2652.	870.	702.	5.34	115.54 12.40
HYDROGRAPH AT	S2F2	858.	12.00	101.	33.	26.	0.18	
2 COMBINED AT	Node15	9386.	12.40	2752.	903.	728.	5.52	
ROUTED TO	R7B	9371.	12.40	2752.	903.	728.	5.52	115.63 12.40
HYDROGRAPH AT	S2E	1069.	12.10	143.	46.	37.	0.25	
ROUTED TO	S2EDAM	814.	12.20	122.	46.	37.	0.25	1224.71 12.20
HYDROGRAPH AT	S2F1	709.	12.00	79.	25.	20.	0.15	
3 COMBINED AT	Node11	10035.	12.40	2950.	973.	785.	5.92	
ROUTED TO	R7A	9919.	12.40	2950.	973.	785.	5.92	115.92 12.40
2 COMBINED AT	27THB	9949.	12.40	2976.	984.	793.	5.99	
ROUTED TO	R6B	9926.	12.50	2975.	984.	793.	5.99	122.01 12.50
HYDROGRAPH AT	S5A	724.	12.20	117.	37.	30.	0.22	
ROUTED TO	PondS5	735.	12.20	106.	37.	30.	0.22	1269.62 12.20
ROUTED TO	R33	538.	12.40	106.	37.	30.	0.22	

HYDROGRAPH AT	S5B	1210.	12.10	193.	61.	49.	0.37		
2 COMBINED AT	S5up	1491.	12.20	297.	99.	79.	0.59		
ROUTED TO	R32	1314.	12.40	297.	99.	79.	0.59		
HYDROGRAPH AT	S5C	942.	12.10	126.	40.	32.	0.23		
2 COMBINED AT	S38th	1744.	12.20	422.	139.	112.	0.82		
ROUTED TO	R31	1304.	12.60	420.	139.	111.	0.82		
HYDROGRAPH AT	S5E	783.	12.00	99.	32.	25.	0.18		
ROUTED TO	R34	178.	12.50	97.	32.	25.	0.18		
HYDROGRAPH AT	S5F	1288.	12.00	146.	46.	37.	0.28		
HYDROGRAPH AT	S5G	745.	12.00	80.	25.	20.	0.15		
4 COMBINED AT	RRjctn	2604.	12.00	741.	242.	194.	1.43		
HYDROGRAPH AT	S5D	1672.	12.00	186.	60.	48.	0.34		
2 COMBINED AT	Saltil	4276.	12.00	926.	302.	242.	1.77		
HYDROGRAPH AT	S2B1	562.	12.00	68.	21.	17.	0.14		
3 COMBINED AT	BNSFB	12031.	12.50	3965.	1307.	1053.	7.90		
ROUTED TO	R6A	12041.	12.50	3965.	1307.	1053.	7.90		
HYDROGRAPH AT	S1G	821.	12.10	110.	36.	29.	0.19		
HYDROGRAPH AT	S1F	398.	12.30	84.	28.	23.	0.14		
2 COMBINED AT	Node12	1112.	12.10	194.	64.	51.	0.33		
ROUTED TO	R5	1032.	12.20	194.	64.	51.	0.33		
HYDROGRAPH AT	S1E	622.	12.10	97.	31.	25.	0.17		
ROUTED TO	27THA	165.	12.70	94.	31.	25.	0.17		
ROUTED TO	R3	153.	13.50	94.	31.	25.	0.17		
HYDROGRAPH AT	S1D	837.	12.10	120.	40.	32.	0.20		
3 COMBINED AT	Node11	1885.	12.10	402.	134.	108.	0.70		
ROUTED TO	D37	1502.	12.30	402.	134.	108.	0.70	1212.01	12.30
ROUTED TO	R2	1425.	12.40	402.	134.	108.	0.70		
HYDROGRAPH AT	S1C	549.	12.20	102.	33.	26.	0.19		
ROUTED TO	PONDN	535.	12.30	102.	33.	26.	0.19	112.43	12.30
HYDROGRAPH AT	S1B	351.	12.10	47.	15.	12.	0.11		
2 COMBINED AT	Node14	775.	12.20	150.	47.	38.	0.30		
ROUTED TO	R4	742.	12.30	149.	47.	38.	0.30		
ROUTED TO	PONDK	680.	12.40	148.	47.	38.	0.30	94.74	12.40
2 COMBINED AT	Node10	2105.	12.40	549.	181.	146.	1.00		
ROUTED TO	R1B	2009.	12.60	549.	181.	146.	1.00		
HYDROGRAPH AT	S1A3	453.	12.20	80.	25.	20.	0.17		
2 COMBINED AT	Node9	2296.	12.50	628.	206.	166.	1.17		
DIVERSION TO	BNDitc	1282.	12.50	296.	91.	73.	1.17		
HYDROGRAPH AT	Node9A	1015.	12.50	332.	115.	92.	1.17		
ROUTED TO	R1A	999.	12.60	332.	115.	92.	1.17	1180.30	12.60
HYDROGRAPH AT	S1A1	902.	12.00	111.	34.	28.	0.29		
2 COMBINED AT	14TH	1487.	12.10	443.	149.	120.	1.46		
HYDROGRAPH AT	S1A4	217.	12.10	30.	9.	8.	0.06		
HYDROGRAPH AT	BNDitc	1282.	12.50	296.	91.	73.	0.00		
2 COMBINED AT	Yankee	1348.	12.50	326.	101.	81.	0.06		
HYDROGRAPH AT	S2B2	192.	12.20	32.	10.	8.	0.07		
ROUTED TO	det-u	175.	12.30	31.	10.	8.	0.07	104.36	12.30
HYDROGRAPH AT	S2A	725.	12.00	90.	28.	22.	0.24		
HYDROGRAPH AT	S2C	1757.	12.00	192.	61.	49.	0.35		
6 COMBINED AT	NULLB	15083.	12.50	5042.	1655.	1333.	10.08		

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