100 year Future-Alternate 2
HEC1 S/N: 1343001909 HMVersion: 6.33 Data File: C:\WINNT\TEMP\~vbh2455.TMP

```
*****************************************
*****************************************
*                                       *
*
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
U.S. ARMY CORPS OF ENGINEERS      *
*                MAY   1991             *
HYDROLOGIC ENGINEERING CENTER     *
*             VERSION 4.0.1E            *
609 SECOND STREET           *
*                                       *
DAVIS, CALIFORNIA 95616         *
*  RUN DATE  06/19/2001  TIME  16:13:09 *
(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

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

          1         ID  Type IIA storm
          2         IT      15       0       0     288
          3         IO       5

          4         KK  SC205
          5         KM  Smith Creek 205 Runoff
          6         KO                                      22
          7         BA  0.0970
          8         PB     4.6
          9         IN      15
          10        PC  0.0005  0.0015  0.0030  0.0045  0.0060  0.0080  0.0100  0.0120  0.0143
0.0165
          11        PC  0.0188  0.0210  0.0233  0.0255  0.0278  0.0320  0.0390  0.0460  0.0530
0.0600
          12        PC  0.0750  0.1000  0.4000  0.7000  0.7250  0.7500  0.7650  0.7800  0.7900
0.8000
          13        PC  0.8100  0.8200  0.8250  0.8300  0.8350  0.8400  0.8450  0.8500  0.8550
0.8600
          14        PC  0.8638  0.8675  0.8713  0.8750  0.8788  0.8825  0.8863  0.8900  0.8938
0.8975
          15        PC  0.9013  0.9050  0.9083  0.9115  0.9148  0.9180  0.9210  0.9240  0.9270
0.9300
          16        PC  0.9325  0.9350  0.9375  0.9400  0.9425  0.9450  0.9475  0.9500  0.9525
0.9550
          17        PC  0.9575  0.9600  0.9625  0.9650  0.9675  0.9700  0.9725  0.9750  0.9775
0.9800
          18        PC  0.9813  0.9825  0.9838  0.9850  0.9863  0.9875  0.9888  0.9900  0.9913
0.9925
          19        PC  0.9938  0.9950  0.9963  0.9975  0.9988  1.0000
          20        LS       0      68
          21        UD   0.257

          22        KK  RT205
          23        KM  Smith Creek Route 205 to 213
          24        KO                                      22
          25        RK    1530  0.0431   0.055            TRAP              2

          26        KK  SC207
          27        KM  Smith Creek 207 Runoff
          28        KO                                      22
          29        BA    0.12
          30        PB     4.6
          31        LS       0      68
          32        UD   0.367

          33        KK  SC213
          34        KM  Smith Creek 213 Runoff
          35        KO                                      22
          36        BA  0.1243
          37        PB     4.6
          38        LS       0      67
          39        UD   0.361

          40        KK  DP213
          41        KM  Combine RT205 SC207 and SC213
          42        KO                                      22
          43        HC       3

          44        KK  RT213
          45        KM  Smith Creek Route 213 to 215
          46        KO                                      22
          47        RK    1360  0.0493   0.055            TRAP              2
```

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

 48          KK  SC209
 49          KM  Smith Creek 209 Runoff
 50          KO                                              22
 51          BA  0.1351
 52          PB     4.6
 53          LS       0       63
 54          UD   0.336

 55          KK  SC211
 56          KM  Smith Creek 211 Runoff
 57          KO                                              22
 58          BA  0.0799
 59          PB     4.6
 60          LS       0       62
 61          UD   0.418

 62          KK  SC215
 63          KM  Smith Creek 215 Runoff
 64          KO                                              22
 65          BA  0.0589
 66          PB     4.6
 67          LS       0       68
 68          UD   0.227

 69          KK  DP215
 70          KM  Combine RT213 SC209 SC211 and SC215
 71          KO                                              22
 72          HC       4

 73          KK  RT215
 74          KM  Smith Creek Route 215 to 219
 75          KO                                              22
 76          RK    2110  0.0446  0.0745             TRAP                2

 77          KK  SC219
 78          KM  Smith Creek 219 Runoff
 79          KO                                              22
 80          BA  0.1298
 81          PB     4.6
 82          LS       0       62
 83          UD   0.362

 84          KK  DP219
 85          KM  Combine RT215 and SC219
 86          KO                                              22
 87          HC       2

 88          KK  SC201
 89          KM  Smith Creek 201 Runoff
 90          KO                                              22
 91          BA  0.1216
 92          PB     4.6
 93          LS       0       63
 94          UD   0.340
```

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

 95          KK  RT201
 96          KM  Tributary Route 201 to 203
 97          KO                                                22
 98          RK    1650  0.0509   0.055                TRAP                2

 99          KK  SC203
100          KM  Smith Creek 203 Runoff
101          KO                                                22
102          BA  0.1113
103          PB     4.6
104          LS       0       61
105          UD   0.223

106          KK  DP203
107          KM  Combine RT201 and SC203
108          KO                                                22
109          HC       2

110          KK  RT203
111          KM  Tributary Route 203 to 217
112          KO                                                22
113          RK    2010  0.0557  0.0698                TRAP                2

114          KK  SC217
115          KM  Smith Creek 217 Runoff
116          KO                                                22
117          BA  0.0547
118          PB     4.6
119          LS       0       62
120          UD   0.211

121          KK  DP217
122          KM  Combine RT203 and SC217
123          KO                                                22
124          HC       2

125          KK  DP220
126          KM  Combine DP217 and DP219
127          KO                                                22
128          HC       2

129          KK  RT220
130          KM  Smith Creek Route 220 to 316
131          KO                                                22
132          RK     646  0.0313  0.0829                TRAP        1       2

133          KK  SC301
134          KM  Smith Creek 301 Runoff
135          KO                                                22
136          BA  0.1196
137          PB     4.6
138          LS       0       68
139          UD   0.279
```

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

140          KK  SC303
141          KM  Smith Creek 303 Runoff
142          KO                                          22
143          BA  0.1300
144          PB     4.6
145          LS       0       68
146          UD   0.314

147          KK  DP303
148          KM  Combine SC301 and SC303
149          KO                                          22
150          HC       2

151          KK  RT303
152          KM  Tributary Route 303 to 305
153          KO                                          22
154          RK     940  0 0372   0.055                TRAP                2

155          KK  SC305
156          KM  Smith Creek 305 Runoff
157          KO                                          22
158          BA  0.0629
159          PB     4.6
160          LS       0       68
161          UD   0.261

162          KK  DP305
163          KM  Combine RT303 and SC305
164          KO                                          22
165          HC       2

166          KK  RT305
167          KM  Tributary Route 305 to 311
168          KO                                          22
169          RK    2150  0.0414   0.055                TRAP                2

170          KK  SC307
171          KM  Smith Creek 307 Runoff
172          KO                                          22
173          BA  0.1081
174          PB     4.6
175          LS       0       68
176          UD   0.472

177          KK  SC309
178          KM  Smith Creek 309 Runoff
179          KO                                          22
180          BA  0.1240
181          PB     4.6
182          LS       0       68
183          UD   0.366
```

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

184          KK  SC311
185          KM  Smith Creek 311 Runoff
186          KO                                        22
187          BA  0.1064
188          PB     4 6
189          LS        0       68
190          UD   0.234

191          KK  DP311
192          KM  Combine RT305 SC307 SC309 and SC311
193          KO                                        22
194          HC        4

195          KK  RT311
196          KM  Tributary Route 311 to 315
197          KO                                        22
198          RK    2860  0.0448  0.0888           TRAP              2

199          KK  SC313
200          KM  Smith Creek 313 Runoff
201          KO                                        22
202          BA  0.1520
203          PB     4.6
204          LS        0       67
205          UD   0.352

206          KK  SC315
207          KM  Smith Creek 315 Runoff
208          KO                                        22
209          BA  0.0886
210          PB     4.6
211          LS        0       68
212          UD   0.297

213          KK  DP315
214          KM  Combine RT311 SC313 and SC315
215          KO                                        22
216          HC        3

217          KK  DP316
218          KM  Combine RT220 and DP315
219          KO                                        22
220          HC        2

221          KK  RT316
222          KM  Smith Creek Route 316 to 401
223          KO                                        22
224          RK    2575  0.0361   0.120           TRAP       1      2
```

HEC-1 INPUT

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

  225          KK  SC401
  226          KM  Smith Creek 401 Runoff
  227          KO                                          22
  228          BA  0.1524
  229          PB     4.6
  230          LS       0       68
  231          UD   0.377

  232          KK  DP401
  233          KM  Combine RT316 and SC401
  234          KO                                          22
  235          HC       2

  236          KK  RT401
  237          KM  Smith Creek Route 401 to 405
  238          KO                                          22
  239          RK     660  0.0548   0.120            TRAP       1       2

  240          KK  SC403
  241          KM  Smith Creek 403 Runoff
  242          KO                                          22
  243          BA  0.1007
  244          PB     4.6
  245          LS       0       68
  246          UD   0.332

  247          KK  SC405
  248          KM  Smith Creek 405 Runoff
  249          KO                                          22
  250          BA  0.0677
  251          PB     4.6
  252          LS       0       68
  253          UD   0.263

  254          KK  DP405
  255          KM  Combine RT401 SC403 and SC405
  256          KO                                          22
  257          HC       3

  258          KK  RT405
  259          KM  Smith Creek Route 405 to 407
  260          KO                                          22
  261          RK    1500  0.0210   0.120            TRAP       1       2

  262          KK  SC101
  263          KM  Smith Creek 101 Runoff
  264          KO                                          22
  265          BA  0.0920
  266          PB     4.6
  267          LS       0       64
  268          UD   0.353
```

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

  269          KK  RT101
  270          KM  Tributary Route 101 to 103
  271          KO                                                22
  272          RK    2050  0 0424   0 055            TRAP                 2

  273          KK  SC103
  274          KM  Smith Creek 103 Runoff
  275          KO                                                22
  276          BA  0.1670
  277          PB     4.6
  278          LS       0       65
  279          UD   0.348

  280          KK  SC105A
  281          KM  Smith Creek 105A Runoff
  282          KO                                                22
  283          BA  0.0693
  284          PB     4.6
  285          LS       0       70
  286          UD   0.345

  287          KK  DP103
  288          KM  Combine RT101 SC105A and SC103
  289          KO                                                22
  290          HC       3

  291          KK  RES106
  292          KM  Exisitng Detention Pond 106
  293          KO                                                22
  294          RS       1     STOR       -1
  295          SA    0.43     0.54     0.65     0.80     0.94     1.00
  296          SE    7320     7322     7324     7326     7328     7330
  297          SQ       0       50       80      100      190      250
  298          SE    7320     7322     7324     7326     7328     7330

  299          KK  RT103
  300          KM  Tributary Route RES103 to 105
  301          KO                                                22
  302          RK    1150  0.0478   0.055            TRAP                 2

  303          KK  SC105B
  304          KM  Smith Creek 105B Runoff
  305          KO                                                22
  306          BA  0.0686
  307          PB     4.6
  308          LS       0       69
  309          UD   0.345

  310          KK  DP105
  311          KM  Combine RT103 and SC105B
  312          KO                                                22
  313          HC       2
```

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

  314          KK  RT105A
  315          KM  Tributary Route 105 to 107A
  316          KO                                                22
  317          RK    1000  0.0395  0.0727                  TRAP          2

  318          KK  SC107A
  319          KM  Smith Creek 107A Runoff
  320          KO                                                22
  321          BA  0.1367
  322          PB     4.6
  323          LS       0       69
  324          UD   0.273

  325          KK  RES108
  326          KM  EXISTING DETENTION POND 108
  327          KO                                                22
  328          RS       1     STOR       -1
  329          SV     0.0     0.20     0.68     1.35     2.32
  330          SE    7340     7342     7344     7346     7348
  331          SQ       0       20       48      220      822
  332          SE    7340     7342     7344     7346     7348

  333          KK  DP107A
  334          KM  Combine RT105A and RES108
  335          KO                                                22
  336          HC       2

  337          KK  RT105B
  338          KM  TRIBUTARY ROUTE 107A TO 107B
  339          KO                                                22
  340          RK    1000  0.0395  0.0727                  TRAP          2

  341          KK  SC107B
  342          KM  SMITH CREEK 107B RUNOFF
  343          KO                                                22
  344          BA  0.0408
  345          PB     4.6
  346          LS       0       68
  347          UD   0.273

  348          KK  DP107B
  349          KM  COMBINE RT105B AND SC107B
  350          KO                                                22
  351          HC       2

  352          KK  RT107
  353          KM  Tributary Route 107B to 109
  354          KO                                                22
  355          RK    1420  0.0359   0.120                  TRAP          2
```

HEC-1 INPUT

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

  356          KK  SC109
  357          KM  Smith Creek 109 Runoff
  358          KO                                          22
  359          BA  0.1637
  360          PB     4.6
  361          LS        0       69
  362          UD   0.350

  363          KK  DP109
  364          KM  Combine RT107 and SC109
  365          KO                                          22
  366          HC        2

  367          KK  RT109
  368          KM  Tributary Route 109 to 111
  369          KO                                          22
  370          RK    3840   0.0453    0.120          TRAP              2

  371          KK  SC111
  372          KM  Smith Creek 111 Runoff
  373          KO                                          22
  374          BA  0.1894
  375          PB     4.6
  376          LS        0       69
  377          UD   0.382

  378          KK  DP111
  379          KM  Combine RT109 and SC111
  380          KO                                          22
  381          HC        2

  382          KK  SC407
  383          KM  Smith Creek 407 Runoff
  384          KO                                          22
  385          BA  0.1685
  386          PB     4.6
  387          LS        0       68
  388          UD   0.423

  389          KK  DP407
  390          KM  Combine DP111 RT405 and SC407
  391          KO                                          22
  392          HC        3

  393          KK  RT407
  394          KM  SMITH CREEK ROUTE 407 TO 506
  395          KO                                          22
  396          RK    1105   0.0210    0.120          TRAP        1     2
```

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

397           KK  SC501
398           KM  Smith Creek 501 Runoff
399           KO                                          22
400           BA  0.1219
401           PB     4.6
402           LS       0       68
403           UD   0.312

404           KK  SC503
405           KM  Smith Creek 503 Runoff
406           KO                                          22
407           BA  0.1193
408           PB     4.6
409           LS       0       68
410           UD   0.334

411           KK  SC505
412           KM  Smith Creek 505 Runoff
413           KO                                          22
414           BA  0.1923
415           PB     4.6
416           LS       0       68
417           UD   0.379

418           KK  DP505
419           KM  Combine SC501 SC503 and SC505
420           KO                                          22
421           HC       3

422           KK  DP506
423           KM  Combine RT407 and DP505
424           KO                                          22
425           HC       2

426           KK  RT506
427           KM  Smith Creek Route 506 to 507
428           KO                                          22
429           RK     750  0.0067  0.0978            TRAP       2        1

430           KK  SC507
431           KM  Smith Creek 507 Runoff
432           KO                                          22
433           BA  0.0958
434           PB     4.6
435           LS       0       68
436           UD   0.229

437           KK  DP507
438           KM  Combine RT506 and SC507
439           KO                                          22
440           HC       2
```

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

  441          KK  RT507
  442          KM  Smith Creek Route 507 to 509
  443          KO                                          22
  444          RK    2010  0.0268  0.0978                TRAP        2         1

  445          KK  SC509
  446          KM  Smith Creek 509 Runoff
  447          KO                                          22
  448          BA  0.1514
  449          PB     4.6
  450          LS       0       68
  451          UD   0.405

  452          KK  DP509
  453          KM  Combine RT507 and SC509
  454          KO                                          22
  455          HC       2

  456          KK  RT509
  457          KM  Smith Creek Route 509 to 511
  458          KO                                          22
  459          RK    2650  0.0160  0.0978                TRAP        2         1

  460          KK  SC511
  461          KM  Smith Creek 511 Runoff
  462          KO                                          22
  463          BA  0.0907
  464          PB     4.6
  465          LS       0       68
  466          UD   0.305

  467          KK  DP511
  468          KM  Combine RT509 and SC511
  469          KO                                          22
  470          HC       2

  471          KK  RT511
  472          KM  Smith Creek Route 511 to 603
  473          KO                                          22
  474          RK     670  0.0373  0.0978                TRAP        2         1

  475          KK  SC601
  476          KM  Smith Creek 601 Runoff
  477          KO                                          22
  478          BA  0.0633
  479          PB     4.6
  480          LS       0       69
  481          UD   0.210
```

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

482          KK  RT601
483          KM  Tributary Route 601 to 603
484          KO                                          22
485          RK    1170  0.0359   0.090          TRAP                2

486          KK  SC603
487          KM  Smith Creek 603 Runoff
488          KO                                          22
489          BA  0.2514
490          PB     4.6
491          LS       0       68
492          UD   0.289

493          KK  DP603
494          KM  Combine RT601 and SC603
495          KO                                          22
496          HC       2

497          KK  DP604
498          KM  Combine RT511 and DP603
499          KO                                          22
500          HC       2

501          KK  RT604
502          KM  Smith Creek Route 604 to 609
503          KO                                          22
504          RK    1380  0.0236  0.0928          TRAP        2       1

505          KK  SC607
506          KM  Smith Creek 607 Runoff
507          KO                                          22
508          BA  0.0840
509          PB     4.6
510          LS       0       69
511          UD   0.270

512          KK  SC609
513          KM  Smith Creek 609 Runoff
514          KO                                          22
515          BA  0.1389
516          PB     4.6
517          LS       0       69
518          UD   0.326

519          KK  DP609
520          KM  Combine RT604 SC607 and SC609
521          KO                                          22
522          HC       3
```

HEC-1 INPUT

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

      523   KK  RES610
      524   KM  Smith Creek Reservoir Route 610
      525   KO                                                  22
      526   RS       1     STOR       -1
      527   SA     2.2      2.7      3.3      3.8      4.4      5.1      5.8
      528   SE    6822     6823     6824     6825     6826     6827     6828
      529   SQ       0       11      701     2361     4843    10331    16010

      530   KK  SC605A
      531   KM  Smith Creek 605A Runoff
      532   KO                                                  22
      533   BA  0.0505
      534   PB     4.6
      535   LS       0       68
      536   UD   0.252

      537   KK  RT605
      538   KM  SMITH CREEK ROUTE 605 TO DP610
      539   KO                                                  22
      540   RK    2000     0.03    0.013             TRAP        2        2

      541   KK  SC605B
      542   KM  SMITH CREEK 605B RUNOFF
      543   KO                                                  22
      544   BA  0.0778
      545   PB     4.6
      546   LS       0       75
      547   UD   0.252

      548   KK  RES605
      549   KM  SMITH CREEK RESEVOIR ROUTE 605
      550   KO                                                  22
      551   RS       1     STOR       -1
      552   SV       0    0.099    0.218     0.36    0.526    0.718    0.937    1.185    1.463
1.773
      553   SV   2.117    2.496    2.912
      554   SE    6818     6819     6820     6821     6822     6823     6824     6825     6826
6827
      555   SE    6828     6829     6830
      556   SQ       0     5.18    19.37    40.40    65.78    92.88   119.23   143.30   162.05
176.76
      557   SQ  190.33   202.99   214.91
      558   SE    6818     6819     6820     6821     6822     6823     6824     6825     6826
6827
      559   SE    6828     6829     6830

      560   KK  DP610
      561   KM  COMBINE RES 610 RES 605 AND RT605
      562   KO                                                  22
      563   HC       3

      564   KK  RT610
      565   KM  Smith Creek Route 610 to 611
      566   KO                                                  22
      567   RK    3200   0.0226    0.090             TRAP        2        1
```

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

568          KK  SC611
569          KM  Smith Creek 611 Runoff
570          KO                                          22
571          BA  0.1095
572          PB     4.6
573          LS       0       69
574          UB   0.149

575          KK  DP611
576          KM  Combine RT610 and SC611
577          KO                                          22
578          HC       2

579          KK  RES612
580          KM  Smith Creek Reservoir Route 612
581          KO                                          22
582          RS       1     STOR       -1
583          SA    1.82     2.77     3.72      4.5     5.28     5.78
584          SE    6762     6763     6764     6765     6766   6766.5
585          SQ       0      150      510     1160     2120     2680

586          KK  RT612
587          KM  Smith Creek Route 612 to 617
588          KO                                          22
589          RK    2250   0.0240   0.0866              TRAP        2        1

590          KK  SC613
591          KM  Smith Creek 613 Runoff
592          KO                                          22
593          BA  0.1233
594          PB     4.6
595          LS       0       75
596          UB   0.270

597          KK  RES613
598          KM  EXISTING POND 613
599          KO                                          22
600          RS       1     STOR       -1
601          SA    0.12     0.96     1.09     1.21     1.34     1.47
602          SE    6794     6796     6798     6800     6802     6804
603          SQ    4.67     7.44     9.43    22.99    29.35    34.42
604          SE    6794     6796     6798     6800     6802     6804

605          KK  RT618
606          KM  SMITH CREEK ROUTE RES613 TO DP  618
607          KO                                          22
608          RK    1100    0 030    0.013              TRAP        2        2

609          KK  SC617A
610          KM
611          KO                                          22
612          BA  0.0149
613          PB     4.6
614          LS       0       73
```

```
LINE
ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
  615           UD   0 162

  616           KK  RES617
  617           KM  SMITH CREEK RESEVOIR ROUTE 617
  618           KO                                                  22
  619           RS       1     STOR       -1
  620           SV       0      0.5      1.0      1.5
  621           SE    6740     6745     6748     6750
  622           SQ       0       30       40       63
  623           SE    6740     6745     6748     6750

  624           KK  SC618
  625           KM  SMITH CREEK 618 RUNOFF
  626           KO                                                  22
  627           BA   0.007
  628           PB     4.6
  629           LS       0       73
  630           UD    0.15

  631           KK  RES618
  632           KM  SMITH CREEK RESEVOIR 618
  633           KO                                                  22
  634           RS       1     STOR       -1
  635           SV       0      0.5      1.0
  636           SE    6768     6770     6772
  637           SQ       0        3        6
  638           SE    6768     6770     6772

  639           KK  DP618
  640           KM  COMBINE RES 613 RES 618 AND RT618
  641           KO                                                  22
  642           HC       3

  643           KK  SC615B
  644           KM  Smith Creek 615B Runoff
  645           KO                                                  22
  646           BA  0.0313
  647           PB     4.6
  648           LS       0       78
  649           UD   0.160

  650           KK  RES614
  651           KM  EXISTING POND 614
  652           KO                                                  22
  653           RS       1     STOR       -1
  654           SV       0    0.067     0.32     0.67     1.16     1.5
  655           SE    6722     6724     6726     6728     6730    6732
  656           SQ       0        4        6       10     13.3      20
  657           SE    6722     6724     6726     6728     6730    6732
```

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

  658          KK  SC615A
  659          KM  SMITH CREEK 615A
  660          KO                                          22
  661          BA  0.0567
  662          PB     4.6
  663          LS       0       74
  664          UD    0.18

  665          KK  RES615
  666          KM  SMITH CREEK RESEVOIR ROUTE 615
  667          KO                                          22
  668          RS       1     STOR       -1
  669          SV       0        1        2      2.5
  670          SE    6726     6728     6730     6732
  671          SQ       0        5       10     16.7
  672          SE    6724     6726     6728     6729

  673          KK  SC617C
  674          KM  SMITH CREEK 617C Runoff
  675          KO                                          22
  676          BA   .0482
  677          PB     4.6
  678          LS       0       65
  679          UD     .17

  680          KK  DP613
  681          KM  COMBINE DP 618 RES 615 RES 614 SC 617C AND RT 612
  682          KO                                          22
  683          HC       5

  684          KK  RT614
  685          KM  SMITH CREEK ROUTE 613 TO 617
  686          KO                                          22
  687          RK    1200   0.022   0.030             TRAP       2        4

  688          KK  SC617B
  689          KM  Smith Creek 617B Runoff
  690          KO                                          22
  691          BA  0.0215
  692          PB     4.6
  693          LS       0       69
  694          UD   0.228

  695          KK  DP617
  696          KM  Combine RT614 AND SC617B
  697          KO                                          22
  698          HC       2

  699          KK  RT617
  700          KM  Smith Creek Route 617 to 703
  701          KO                                          22
  702          RK    1470  0.0061   0.085             TRAP       2        1
```

```
ID.....1...    2.....3    .4    ...5    ....6    ..7.....8    ...9      10
  703          KK  SC701
  704          KM  Smith Creek 701 Runoff
  705          KO                                      22
  706          BA  0.0722
  707          PB     4.6
  708          LS       0       92
  709          UD   0.360

  710          KK  SC703
  711          KM  Smith Creek 703 Runoff
  712          KO                                      22
  713          BA  0.1305
  714          PB     4.6
  715          LS       0       77
  716          UD   0.092

  717          KK  DP703
  718          KM  Combine RT617 SC701 and SC703
  719          KO                                      22
  720          HC       3

  721          KK  RT703
  722          KM  Smith Creek Route 703 to 705
  723          KO                                      22
  724          RK    2780  0.0338  0.0786            TRAP       3        1

  725          KK  SC705
  726          KM  Smith Creek 705 Runoff
  727          KO                                      22
  728          BA  0.0869
  729          PB     4.6
  730          LS       0       69
  731          UD   0.329

  732          KK  DP705
  733          KM  Combine RT703 and SC705
  734          KO                                      22
  735          HC       2
  736          ZZ
```

HEC1 S/N: 1343001909 HMVersion: 6 33 Data File: C:\WINNT\TEMP\~vbh2455.TMP

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

MAXIMUM STAGE	TIME OF OPERATION MAX STAGE	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA
	HYDROGRAPH AT	SC205	73.	6.00	13.	4.	1.	0.10
	ROUTED TO	RT205	73.	6.00	13.	4.	1.	0.10
	HYDROGRAPH AT	SC207	86.	6.00	16.	5.	2.	0.12
	HYDROGRAPH AT	SC213	85.	6.00	16.	5.	2.	0.12
	3 COMBINED AT	DP213	243.	6.00	44.	14.	5.	0.34
	ROUTED TO	RT213	236.	6.00	44.	15.	5.	0.34
	HYDROGRAPH AT	SC209	74.	6.00	14.	5.	2.	0.14
	HYDROGRAPH AT	SC211	35.	6.00	8.	3.	1.	0.08
	HYDROGRAPH AT	SC215	48.	5.75	8.	3.	1.	0.06
	4 COMBINED AT	DP215	389.	6.00	73.	24.	8.	0.62
	ROUTED TO	RT215	368.	6.00	73.	24.	8.	0.62
	HYDROGRAPH AT	SC219	64.	6.00	12.	4.	1.	0.13
	2 COMBINED AT	DP219	432.	6.00	86.	29.	10.	0.75
	HYDROGRAPH AT	SC201	67.	6.00	12.	4.	1	0.12
	ROUTED TO	RT201	63.	6.00	12.	4.	1.	0.12
	HYDROGRAPH AT	SC203	57.	5.75	10.	3.	1.	0.11
	2 COMBINED AT	DP203	116.	6.00	22.	8.	3.	0.23
	ROUTED TO	RT203	111.	6.00	22.	8.	3.	0.23
	HYDROGRAPH AT	SC217	32.	5.75	5.	2	1.	0.05
	2 COMBINED AT	DP217	139.	6.00	28.	9	3.	0.29
	2 COMBINED AT	DP220	570	6.00	113.	38.	13	1.03
	ROUTED TO	RT220	559	6.00	113.	38.	13.	1.03
	HYDROGRAPH AT	SC301	91	6.00	16.	5	2.	0.12

HYDROGRAPH AT	SC303	99.	6.00	17	6.	2.	0.13
2 COMBINED AT	DP303	190.	6.00	33	11	4.	0.25
ROUTED TO	RT303	187.	6.00	33	11	4.	0.25
HYDROGRAPH AT	SC305	48.	6.00	8.	3.	1.	0.06
2 COMBINED AT	DP305	235.	6.00	41.	13.	5.	0.31
ROUTED TO	RT305	227.	6.00	41.	14.	5.	0.31
HYDROGRAPH AT	SC307	64.	6.00	14.	5.	2.	0.11
HYDROGRAPH AT	SC309	89.	6.00	16.	5.	2.	0.12
HYDROGRAPH AT	SC311	84.	5.75	14.	5.	2.	0.11
4 COMBINED AT	DP311	458.	6.00	86.	28.	9.	0.65
ROUTED TO	RT311	426.	6.00	86.	28.	9.	0.65
HYDROGRAPH AT	SC313	105.	6.00	19.	6.	2.	0.15
HYDROGRAPH AT	SC315	68.	6.00	12.	4.	1.	0.09
3 COMBINED AT	DP315	599.	6.00	117.	38.	13.	0.89
2 COMBINED AT	DP316	1158.	6.00	230.	76.	26.	1.92
ROUTED TO	RT316	1054.	6.00	231.	77.	26.	1.92
HYDROGRAPH AT	SC401	107.	6.00	20.	7.	2.	0.15
2 COMBINED AT	DP401	1162.	6.00	251.	83.	28.	2.08
ROUTED TO	RT401	1133.	6.00	251.	83.	28.	2.08
HYDROGRAPH AT	SC403	75.	6.00	13.	4.	1.	0.10
HYDROGRAPH AT	SC405	51.	6.00	9.	3.	1.	0.07
3 COMBINED AT	DP405	1260.	6.00	273.	91.	30.	2.25
ROUTED TO	RT405	1164.	6.00	274.	91.	30.	2.25
HYDROGRAPH AT	SC101	53.	6.00	10	3.	1.	0.09
ROUTED TO	RT101	48	6.00	10.	3.	1.	0.09
HYDROGRAPH AT	SC103	103.	6.00	19	6.	2.	0.17
HYDROGRAPH AT							

		SC105A	57.	6.00	10.	3	1.	0.07
	3 COMBINED AT							
		DP103	208.	6.00	39.	13.	4.	0.33
	ROUTED TO							
		RES106	136.	6.25	38.	13.	4.	0.33
7326.79	6.25							
	ROUTED TO							
		RT103	132.	6.25	38.	13.	4.	0.33
	HYDROGRAPH AT							
		SC105B	53.	6.00	9.	3.	1.	0.07
	2 COMBINED AT							
		DP105	167.	6.25	48.	16.	5.	0.40
	ROUTED TO							
		RT105A	164.	6.25	48.	16.	5.	0.40
	HYDROGRAPH AT							
		SC107A	110.	6.00	19.	6.	2.	0.14
	ROUTED TO							
		RES108	128.	6.00	19.	6.	2.	0.14
7344.93	6.00							
	2 COMBINED AT							
		DP107A	263.	6.00	67.	22.	7.	0.53
	ROUTED TO							
		RT105B	250.	6.00	67.	22	7.	0.53
	HYDROGRAPH AT							
		SC107B	31.	6.00	5.	2.	1.	0.04
	2 COMBINED AT							
		DP107B	281.	6.00	72.	24	8.	0.57
	ROUTED TO							
		RT107	255.	6.00	72.	24.	8.	0.57
	HYDROGRAPH AT							
		SC109	127.	6.00	23.	7.	2.	0.16
	2 COMBINED AT							
		DP109	382.	6.00	95.	31.	10.	0.74
	ROUTED TO							
		RT109	357.	6.25	94	31.	10.	0.74
	HYDROGRAPH AT							
		SC111	140.	6.00	26.	9.	3.	0.19
	2 COMBINED AT							
		DP111	463.	6.25	120.	40.	13.	0.93
	HYDROGRAPH AT							
		SC407	110.	6.00	22.	7.	2	0.17
	3 COMBINED AT							
		DP407	1713.	6.00	416	138	46.	3.34
	ROUTED TO							
		RT407	1703.	6.25	417	138.	46.	3.34
	HYDROGRAPH AT							
		SC501	93.	6.00	16	5.	2.	0.12
	HYDROGRAPH AT							
		SC503	89.	6.00	16.	5.	2.	0.12
	HYDROGRAPH AT							
		SC505	135.	6.00	25	8.	3.	0.19
	3 COMBINED AT							
		DP505	317.	6.00	57	19.	6.	0.43

2 COMBINED AT	DP506	1926	6 00	473.	157.	52.	3 77
ROUTED TO	RT506	1916.	6 25	474.	157.	53	3 77
HYDROGRAPH AT	SC507	77	5 75	13	4.	1	0 10
2 COMBINED AT	DP507	1948.	6 25	487.	161.	54	3 87
ROUTED TO	RT507	1943	6. 25	487.	162.	54.	3 87
HYDROGRAPH AT	SC509	102.	6. 00	20.	7	2.	0. 15
2 COMBINED AT	DP509	2026	6. 25	507.	168.	56	4. 02
ROUTED TO	RT509	1992.	6. 25	507.	169.	57.	4. 02
HYDROGRAPH AT	SC511	69.	6. 00	12.	4.	1.	0. 09
2 COMBINED AT	DP511	2031.	6. 25	519.	173.	58.	4. 11
ROUTED TO	RT511	2018.	6. 25	519.	173.	58.	4. 11
HYDROGRAPH AT	SC601	59.	5. 75	9.	3.	1.	0. 06
ROUTED TO	RT601	50.	5. 75	9.	3.	1.	0. 06
HYDROGRAPH AT	SC603	192.	6. 00	33.	11.	4.	0. 25
2 COMBINED AT	DP603	241.	6 00	42.	14.	5.	0. 31
2 COMBINED AT	DP604	2149.	6. 25	561.	187.	62.	4 43
ROUTED TO	RT604	2125.	6. 25	562.	187.	63.	4 43
HYDROGRAPH AT	SC607	67.	6. 00	12.	4.	1.	0 08
HYDROGRAPH AT	SC609	111.	6. 00	19.	6.	2.	0. 14
3 COMBINED AT	DP609	2227	6. 25	592	197.	66.	4 65
ROUTED TO	RES610	2189	6. 25	587.	197.	66	4. 65
6824. 90	6. 25						
HYDROGRAPH AT	SC605A	38.	6. 00	7.	2.	1.	0 05
ROUTED TO	RT605	38.	6. 00	7.	2	1	0 05
HYDROGRAPH AT	SC605B	86.	5. 75	14.	4	1	0 08
ROUTED TO	RES605	87.	6 00	14.	4.	1	0. 08
6822. 79	6 00						

	3 COMBINED AT	DP610	2264	6.25	608.	203	68.	4.78
	ROUTED TO	RT610	2226	6.25	608.	204	68.	4.78
	HYDROGRAPH AT	SC611	131	5.75	15.	5.	2.	0.11
	2 COMBINED AT	DP611	2254	6.25	623.	209	70.	4.89
	ROUTED TO	RES612	2263	6.25	619.	209	70.	4.89
6766.13	6.25							
	ROUTED TO	RT612	2153.	6.50	620.	209.	70.	4.89
	HYDROGRAPH AT	SC613	131.	6.00	22.	7.	2.	0.12
	ROUTED TO	RES613	26.	6.75	17.	9.	6	0.12
6800.81	6.75							
	ROUTED TO	RT618	26.	6.75	17.	9.	6.	0.12
	HYDROGRAPH AT	SC617A	21.	5.75	2.	1.	0.	0.01
	ROUTED TO	RES617	14.	6.00	2.	1.	0.	0.01
6742.42	6.00							
	HYDROGRAPH AT	SC618	10.	5.75	1.	0.	0.	0.01
	ROUTED TO	RES618	2.	6.25	1.	0	0.	0.01
6769.25	6.25							
	3 COMBINED AT	DP618	35.	6.25	20.	10.	6.	0.15
	HYDROGRAPH AT	SC615B	55.	5.75	6.	2	1.	0.03
	ROUTED TO	RES614	17.	6.25	6.	2.	1.	0.03
6731.25	6.25							
	HYDROGRAPH AT	SC615A	78.	5.75	10.	3.	1.	0.06
	ROUTED TO	RES615	27.	6.25	10.	3	1.	0.06
6730.55	6.25							
	HYDROGRAPH AT	SC617C	42.	5.75	5	2	1.	0.05
	5 COMBINED AT	DP613	2232.	6.25	661.	226.	79.	5.17
	ROUTED TO	RT614	2229.	6.50	661.	226	79.	5.17
	HYDROGRAPH AT	SC617B	19	5.75	3.	1	0.	0.02
	2 COMBINED AT	DP617	2233	6.50	664	227	79.	5.19

ROUTED TO	RT617	2228.	6.50	665.	228	79.	5.19
HYDROGRAPH AT	SC701	143.	6.00	24.	7.	2	0.07
HYDROGRAPH AT	SC703	241.	5.75	26.	8	3	0.13
3 COMBINED AT	DP703	2298.	6.50	711.	243	85.	5.39
ROUTED TO	RT703	2284	6.50	711.	243.	85.	5.39
HYDROGRAPH AT	SC705	69.	6.00	12.	4.	1.	0.09
2 COMBINED AT	DP705	2308.	6.50	723.	247.	86.	5.48

SUMMARY OF KINEMATIC WAVE - MUSKINGUM-CUNGE ROUTING
(FLOW IS DIRECT RUNOFF WITHOUT BASE FLOW)

	ISTAQ	ELEMENT	DT	PEAK	TIME TO PEAK	VOLUME	INTERPOLATED TO COMPUTATION INTERVAL DT	PEAK	TIME TO PEAK	VOLUME
			(MIN)	(CFS)	(MIN)	(IN)	(MIN)	(CFS)	(MIN)	(IN)
	RT205	MANE	1.16	73.01	361.09	1.60	15.00	72.75	360.00	1.61

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.8279E+01 EXCESS=0.0000E+00 OUTFLOW=0.8281E+01 BASIN STORAGE= 0.6725E-09 PERCENT ERROR= 0.0

	RT213	MANE	0.68	241.83	361.58	1.58	15.00	236.06	360.00	1.58

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.2872E+02 EXCESS=0.0000E+00 OUTFLOW=0.2872E+02 BASIN STORAGE= 0.2629E-08 PERCENT ERROR= 0.0

	RT215	MANE	1.22	385.02	362.86	1.46	15.00	367.94	360.00	1.47

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.4805E+02 EXCESS=0.0000E+00 OUTFLOW=0.4804E+02 BASIN STORAGE= 0.1887E-07 PERCENT ERROR= 0.0

	RT201	MANE	1.16	66.37	362.28	1.26	15.00	62.68	360.00	1.27

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.8184E+01 EXCESS=0.0000E+00 OUTFLOW=0.8184E+01 BASIN STORAGE= 0.9881E-09 PERCENT ERROR= 0.0

	RT203	MANE	1.41	115.46	362.70	1.20	15.00	111.38	360.00	1.21

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1496E+02 EXCESS=0.0000E+00 OUTFLOW=0.1496E+02 BASIN STORAGE= 0.8667E-08 PERCENT ERROR= 0.0

	RT220	MANE	0.48	567.24	360.71	1.36	15.00	558.98	360.00	1.37

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.7512E+02 EXCESS=0.0000E+00 OUTFLOW=0.7512E+02 BASIN STORAGE= 0.2030E-07 PERCENT ERROR= 0.0

	RT303	MANE	0.59	188.91	360.84	1.60	15.00	187.02	360.00	1.61

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.2130E+02 EXCESS=0.0000E+00 OUTFLOW=0.2131E+02 BASIN STORAGE= 0.1416E-09 PERCENT ERROR= 0.0

	RT305	MANE	1.24	232.62	362.59	1.61	15.00	227.13	360.00	1.61

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.2675E+02 EXCESS=0.0000E+00 OUTFLOW=0.2675E+02 BASIN STORAGE= 0.5252E-08 PERCENT ERROR= 0.0

	RT311	MANE	1.92	450.82	364.28	1.61	15.00	426.45	360.00	1.61

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.5579E+02 EXCESS=0.0000E+00 OUTFLOW=0.5579E+02 BASIN STORAGE=
0.6001E-07 PERCENT ERROR= 0.0

	RT316	MANE	1.73	1144.55	364.21	1.47	15.00	1054.22	360.00
1.48									

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1512E+03 EXCESS=0.0000E+00 OUTFLOW=0.1512E+03 BASIN STORAGE=
0.5493E-06 PERCENT ERROR= 0.0

	RT401	MANE	0.46	1158.37	361.17	1.49	15.00	1133.41	360.00
1.49									

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1649E+03 EXCESS=0.0000E+00 OUTFLOW=0.1649E+03 BASIN STORAGE=
0.1798E-06 PERCENT ERROR= 0.0

	RT405	MANE	1.35	1250.81	363.42	1.50	15.00	1164.23	360.00
1.51									

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1795E+03 EXCESS=0.0000E+00 OUTFLOW=0.1795E+03 BASIN STORAGE=
0.8807E-06 PERCENT ERROR= 0.0

	RT101	MANE	1.62	51.82	362.66	1.33	15.00	48.11	360.00
1.33									

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.6511E+01 EXCESS=0.0000E+00 OUTFLOW=0.6511E+01 BASIN STORAGE=
0.2091E-08 PERCENT ERROR= 0.0

	RT103	MANE	0.69	135.62	376.48	1.45	15.00	131.83	375.00
1.45									

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.2540E+02 EXCESS=0.0000E+00 OUTFLOW=0.2540E+02 BASIN STORAGE=
0.3720E-08 PERCENT ERROR= 0.0

	RT105A	MANE	0.89	166.29	376.47	1.49	15.00	164.43	375.00
1.49									

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.3156E+02 EXCESS=0.0000E+00 OUTFLOW=0.3156E+02 BASIN STORAGE=
0.8833E-08 PERCENT ERROR= 0.0

	RT105B	MANE	0.75	261.14	361.88	1.54	15.00	250.39	360.00
1.54									

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.4380E+02 EXCESS=0.0000E+00 OUTFLOW=0.4381E+02 BASIN STORAGE=
0.1490E-07 PERCENT ERROR= 0.0

	RT107	MANE	1.40	280.11	363.29	1.55	15.00	255.27	360.00
1.55									

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.4738E+02 EXCESS=0.0000E+00 OUTFLOW=0.4737E+02 BASIN STORAGE=
0.7031E-07 PERCENT ERROR= 0.0

	RT109	MANE	3.23	375.40	368.46	1.58	15.00	356.52	375.00
1.57									

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.6211E+02 EXCESS=0.0000E+00 OUTFLOW=0.6205E+02 BASIN STORAGE=
0.8344E-06 PERCENT ERROR= 0.1

	RT407	MANE	0.98	1711.68	362.86	1.53	15.00	1702.66	375.00
1.54									

CONTINUITY SUMMARY (AC-FT) - INFLOW=0 2734E+03 EXCESS=0.0000E+00 OUTFLOW=0.2734E+03 BASIN STORAGE=
0.1210E-05 PERCENT ERROR= 0.0

RT506	MANE	0.79	1924.92	362.19	1.55	15.00	1915.65	375.00
1.55								

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.3113E+03 EXCESS=0.0000E+00 OUTFLOW=0.3112E+03 BASIN STORAGE=
0.1754E-05 PERCENT ERROR= 0.0

RT507	MANE	1.15	1943.71	376.42	1.55	15.00	1942.56	375.00
1.56								

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.3202E+03 EXCESS=0.0000E+00 OUTFLOW=0.3202E+03 BASIN STORAGE=
0.3789E-05 PERCENT ERROR= 0.0

RT509	MANE	1.66	2013.26	377.20	1.56	15.00	1991.98	375.00
1.56								

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.3341E+03 EXCESS=0.0000E+00 OUTFLOW=0.3340E+03 BASIN STORAGE=
0.9805E-05 PERCENT ERROR= 0.0

RT511	MANE	0.40	2026.87	375.75	1.56	15.00	2018.10	375.00
1.57								

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.3429E+03 EXCESS=0.0000E+00 OUTFLOW=0.3429E+03 BASIN STORAGE=
0.2243E-05 PERCENT ERROR= 0.0

RT601	MANE	1.45	58.44	348.00	1.67	15.00	50.32	345.00
1.69								

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.5645E+01 EXCESS=0.0000E+00 OUTFLOW=0.5647E+01 BASIN STORAGE=
0.1270E-08 PERCENT ERROR= 0.0

RT604	MANE	0.84	2140.99	376.62	1.57	15.00	2125.38	375.00
1.57								

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.3704E+03 EXCESS=0.0000E+00 OUTFLOW=0.3704E+03 BASIN STORAGE=
0.5837E-05 PERCENT ERROR= 0.0

RT605	MANE	0.70	37.92	360.83	1.60	15.00	37.89	360.00
1.61								

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.4310E+01 EXCESS=0.0000E+00 OUTFLOW=0.4311E+01 BASIN STORAGE=
0.1412E-09 PERCENT ERROR= 0.0

RT610	MANE	1.67	2251.63	378.79	1.59	15.00	2225.83	375.00
1.59								

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.4043E+03 EXCESS=0.0000E+00 OUTFLOW=0.4043E+03 BASIN STORAGE=
0.2361E-04 PERCENT ERROR= 0.0

RT612	MANE	1.06	2261.76	377.17	1.59	15.00	2152.65	390.00
1.60								

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.4155E+03 EXCESS=0.0000E+00 OUTFLOW=0.4155E+03 BASIN STORAGE=
0.2441E-04 PERCENT ERROR= 0.0

RT618	MANE	0.55	25.57	405.91	5.38	15.00	25.57	405.00
5.38								

CONTINUITY SUMMARY (AC-FT) - INFLOW=0 3541E+02 EXCESS=0 0000E+00 OUTFLOW=0.3541E+02 BASIN STORAGE=
0.1004E-01 PERCENT ERROR= 0 0

RT614 MANE 0.33 2232.16 375.80 1.70 15 00 2228.93 390.00
1.70

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.4680E+03 EXCESS=0.0000E+00 OUTFLOW=0 4679E+03 BASIN STORAGE=
0.2386E-01 PERCENT ERROR= 0 0

RT617 MANE 1.26 2230.21 391.36 1 70 15.00 2228.20 390.00
1.70

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.4702E+03 EXCESS=0.0000E+00 OUTFLOW=0.4702E+03 BASIN STORAGE=
0.9092E-01 PERCENT ERROR= 0.0

RT703 MANE 1.01 2295.59 392.10 1.74 15.00 2283.51 390.00
1.75

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.5013E+03 EXCESS=0.0000E+00 OUTFLOW=0.5013E+03 BASIN STORAGE=
0.9098E-01 PERCENT ERROR= 0.0

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

2 year future-Alternate 3
HEC1 S/N: 1343001909 HMVersion: 6.33 Data File: C:\WINNT\TEMP\~vbh0D20.TMP

```
*****************************************
*****************************************
*                                       *
*
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
U.S.  ARMY CORPS OF ENGINEERS      *
*                MAY    1991            *
HYDROLOGIC ENGINEERING CENTER     *
*             VERSION 4.0.1E            *
609 SECOND STREET           *
*                                       *
DAVIS, CALIFORNIA 95616         *
*  RUN DATE  06/20/2001  TIME  14:17:13 *
(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

```
ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
    1   ID  Type IIA storm
    2   IT      15       0       0     288
    3   IO       5

    4   KK  SC205
    5   KM  Smith Creek 205 Runoff
    6   KO                                                  22
    7   BA  0.0970
    8   PB       2
    9   IN      15
   10   PC  0.0005  0.0015  0.0030  0.0045  0.0060  0.0080  0.0100  0.0120  0.0143
0.0165
   11   PC  0.0188  0.0210  0.0233  0.0255  0.0278  0.0320  0.0390  0.0460  0.0530
0.0600
   12   PC  0.0750  0.1000  0.4000  0.7000  0.7250  0.7500  0.7650  0.7800  0.7900
0.8000
   13   PC  0.8100  0.8200  0.8250  0.8300  0.8350  0.8400  0.8450  0.8500  0.8550
0.8600
   14   PC  0.8638  0.8675  0.8713  0.8750  0.8788  0.8825  0.8863  0.8900  0.8938
0.8975
   15   PC  0.9013  0.9050  0.9083  0.9115  0.9148  0.9180  0.9210  0.9240  0.9270
0.9300
   16   PC  0.9325  0.9350  0.9375  0.9400  0.9425  0.9450  0.9475  0.9500  0.9525
0.9550
   17   PC  0.9575  0.9600  0.9625  0.9650  0.9675  0.9700  0.9725  0.9750  0.9775
0.9800
   18   PC  0.9813  0.9825  0.9838  0.9850  0.9863  0.9875  0.9888  0.9900  0.9913
0.9925
   19   PC  0.9938  0.9950  0.9963  0.9975  0.9988  1.0000
   20   LS       0      68
   21   UD   0.257

   22   KK  RT205
   23   KM  Smith Creek Route 205 to 213
   24   KO                                                  22
   25   RK    1530  0.0431   0.055            TRAP                2

   26   KK  SC207
   27   KM  Smith Creek 207 Runoff
   28   KO                                                  22
   29   BA    0.12
   30   PB       2
   31   LS       0      68
   32   UD   0.367

   33   KK  SC213
   34   KM  Smith Creek 213 Runoff
   35   KO                                                  22
   36   BA  0.1243
   37   PB       2
   38   LS       0      67
   39   UD   0.361

   40   KK  DP213
   41   KM  Combine RT205 SC207 and SC213
   42   KO                                                  22
   43   HC       3

   44   KK  RT213
   45   KM  Smith Creek Route 213 to 215
   46   KO                                                  22
   47   RK    1360  0.0493   0.055            TRAP                2
```

HEC-1 INPUT

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

  48          KK  SC209
  49          KM  Smith Creek 209 Runoff
  50          KO                                          22
  51          BA  0.1351
  52          PB       2
  53          LS       0       63
  54          UD   0.336

  55          KK  SC211
  56          KM  Smith Creek 211 Runoff
  57          KO                                          22
  58          BA  0.0799
  59          PB       2
  60          LS       0       62
  61          UD   0.418

  62          KK  SC215
  63          KM  Smith Creek 215 Runoff
  64          KO                                          22
  65          BA  0.0589
  66          PB       2
  67          LS       0       68
  68          UD   0.227

  69          KK  DP215
  70          KM  Combine RT213 SC209 SC211 and SC215
  71          KO                                          22
  72          HC       4

  73          KK  RT215
  74          KM  Smith Creek Route 215 to 219
  75          KO                                          22
  76          RK    2110  0.0446  0.0745            TRAP                2

  77          KK  SC219
  78          KM  Smith Creek 219 Runoff
  79          KO                                          22
  80          BA  0.1298
  81          PB       2
  82          LS       0       62
  83          UD   0.362

  84          KK  DP219
  85          KM  Combine RT215 and SC219
  86          KO                                          22
  87          HC       2

  88          KK  SC201
  89          KM  Smith Creek 201 Runoff
  90          KO                                          22
  91          BA  0.1216
  92          PB       2
  93          LS       0       63
  94          UD   0.340
```

HEC-1 INPUT

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

 95          KK  RT201
 96          KM  Tributary Route 201 to 203
 97          KO                                          22
 98          RK    1650  0.0509   0.055           TRAP              2

 99          KK  SC203
100          KM  Smith Creek 203 Runoff
101          KO                                          22
102          BA  0.1113
103          PB       2
104          LS       0       61
105          UD   0.223

106          KK  DP203
107          KM  Combine RT201 and SC203
108          KO                                          22
109          HC       2

110          KK  RT203
111          KM  Tributary Route 203 to 217
112          KO                                          22
113          RK    2010  0.0557  0.0698           TRAP              2

114          KK  SC217
115          KM  Smith Creek 217 Runoff
116          KO                                          22
117          BA  0.0547
118          PB       2
119          LS       0       62
120          UD   0.211

121          KK  DP217
122          KM  Combine RT203 and SC217
123          KO                                          22
124          HC       2

125          KK  DP220
126          KM  Combine DP217 and DP219
127          KO                                          22
128          HC       2

129          KK  RT220
130          KM  Smith Creek Route 220 to 316
131          KO                                          22
132          RK     646  0.0313  0.0829           TRAP      1       2

133          KK  SC301
134          KM  Smith Creek 301 Runoff
135          KO                                          22
136          BA  0.1196
137          PB       2
138          LS       0       68
139          UD   0.279
```

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

     140   KK  SC303
     141   KM  Smith Creek 303 Runoff
     142   KO                                          22
     143   BA  0.1300
     144   PB       2
     145   LS       0       68
     146   UD   0.314

     147   KK  DP303
     148   KM  Combine SC301 and SC303
     149   KO                                          22
     150   HC       2

     151   KK  RT303
     152   KM  Tributary Route 303 to 305
     153   KO                                          22
     154   RK     940  0.0372   0.055            TRAP              2

     155   KK  SC305
     156   KM  Smith Creek 305 Runoff
     157   KO                                          22
     158   BA  0.0629
     159   PB       2
     160   LS       0       68
     161   UD   0.261

     162   KK  DP305
     163   KM  Combine RT303 and SC305
     164   KO                                          22
     165   HC       2

     166   KK  RT305
     167   KM  Tributary Route 305 to 311
     168   KO                                          22
     169   RK    2150  0.0414   0.055            TRAP              2

     170   KK  SC307
     171   KM  Smith Creek 307 Runoff
     172   KO                                          22
     173   BA  0.1081
     174   PB       2
     175   LS       0       68
     176   UD   0.472

     177   KK  SC309
     178   KM  Smith Creek 309 Runoff
     179   KO                                          22
     180   BA  0.1240
     181   PB       2
     182   LS       0       68
     183   UD   0.366
```

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

184         KK  SC311
185         KM  Smith Creek 311 Runoff
186         KO                                                  22
187         BA  0 1064
188         PB       2
189         LS       0       68
190         UD   0.234

191         KK  DP311
192         KM  Combine RT305 SC307 SC309 and SC311
193         KO                                                  22
194         HC       4

195         KK  RT311
196         KM  Tributary Route 311 to 315
197         KO                                                  22
198         RK    2860  0.0448  0.0888             TRAP                2

199         KK  SC313
200         KM  Smith Creek 313 Runoff
201         KO                                                  22
202         BA  0.1520
203         PB       2
204         LS       0       67
205         UD   0.352

206         KK  SC315
207         KM  Smith Creek 315 Runoff
208         KO                                                  22
209         BA  0.0886
210         PB       2
211         LS       0       68
212         UD   0.297

213         KK  DP315
214         KM  Combine RT311 SC313 and SC315
215         KO                                                  22
216         HC       3

217         KK  DP316
218         KM  Combine RT220 and DP315
219         KO                                                  22
220         HC       2

221         KK  RES316
222         KM  REGIONAL RES 316
223         KO                                                  22
224         RS       1    STOR      -1
225         SV       0    0.72    2.42    4.57    7.19   10.29
226         SE    7164    7166    7168    7170    7172    7174
227         SQ       0      10      75      90     360    1225
228         SE    7164    7166    7168    7170    7172    7174
```

```
ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
 LINE
  229          KK  RT316
  230          KM  Smith Creek Route 316 to 401
  231          KO                                          22
  232          RK    2575  0.0361    0.120           TRAP        1         2

  233          KK  SC401
  234          KM  Smith Creek 401 Runoff
  235          KO                                          22
  236          BA  0.1524
  237          PB        2
  238          LS        0        68
  239          UD   0.377

  240          KK  DP401
  241          KM  Combine RT316 and SC401
  242          KO                                          22
  243          HC        2

  244          KK  RT401
  245          KM  Smith Creek Route 401 to 405
  246          KO                                          22
  247          RK     660  0.0548    0.120           TRAP        1         2

  248          KK  SC403
  249          KM  Smith Creek 403 Runoff
  250          KO                                          22
  251          BA  0.1007
  252          PB        2
  253          LS        0        68
  254          UD   0.332

  255          KK  SC405
  256          KM  Smith Creek 405 Runoff
  257          KO                                          22
  258          BA  0.0677
  259          PB        2
  260          LS        0        68
  261          UD   0.263

  262          KK  DP405
  263          KM  Combine RT401 SC403 and SC405
  264          KO                                          22
  265          HC        3

  266          KK  RT405
  267          KM  Smith Creek Route 405 to 407
  268          KO                                          22
  269          RK    1500  0.0210    0.120           TRAP        1         2
```

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

270          KK  SC101
271          KM  Smith Creek 101 Runoff
272          KO                                          22
273          BA  0.0920
274          PB       2
275          LS       0       64
276          UD   0.353

277          KK  RT101
278          KM  Tributary Route 101 to 103
279          KO                                          22
280          RK    2050  0.0424   0.055              TRAP                2

281          KK  SC103
282          KM  Smith Creek 103 Runoff
283          KO                                          22
284          BA  0.1670
285          PB       2
286          LS       0       65
287          UD   0.348

288          KK  SC105A
289          KM  Smith Creek 105A Runoff
290          KO                                          22
291          BA  0.0693
292          PB       2
293          LS       0       70
294          UD   0.345

295          KK  DP103
296          KM  Combine RT101 SC105A and SC103
297          KO                                          22
298          HC       3

299          KK  RES106
300          KM  Exisitng Detention Pond 106
301          KO                                          22
302          RS       1     STOR       -1
303          SA    0.43     0.54     0.65     0.80     0.94     1.00
304          SE    7320     7322     7324     7326     7328     7330
305          SQ       0       50       80      100      190      250
306          SE    7320     7322     7324     7326     7328     7330

307          KK  RT103
308          KM  Tributary Route RES103 to 105
309          KO                                          22
310          RK    1150  0.0478   0.055              TRAP                2

311          KK  SC105B
312          KM  Smith Creek 105B Runoff
313          KO                                          22
314          BA  0.0686
315          PB       2
316          LS       0       69
```

```
ID.      LINE
         1.....2.....3.....4.....5.....6.....7.....8.....9.....10
          317          UD   0.345

          318          KK  DP105
          319          KM  Combine RT103 and SC105B
          320          KO                                      22
          321          HC       2

          322          KK  RT105A
          323          KM  Tributary Route 105 to 107A
          324          KO                                      22
          325          RK    1000  0.0395  0.0727             TRAP              2

          326          KK  SC107A
          327          KM  Smith Creek 107A Runoff
          328          KO                                      22
          329          BA  0.1367
          330          PB       2
          331          LS       0       69
          332          UD   0.273

          333          KK  RES108
          334          KM  EXISTING DETENTION POND 108
          335          KO                                      22
          336          RS       1     STOR       -1
          337          SV     0.0     0.20     0.68     1.35     2.32
          338          SE    7340     7342     7344     7346     7348
          339          SQ       0       20       48      220      822
          340          SE    7340     7342     7344     7346     7348

          341          KK  DP107A
          342          KM  Combine RT105A and RES108
          343          KO                                      22
          344          HC       2

          345          KK  RT105B
          346          KM  TRIBUTARY ROUTE 107A TO 107B
          347          KO                                      22
          348          RK    1000  0.0395  0.0727             TRAP              2

          349          KK  SC107B
          350          KM  SMITH CREEK 107B RUNOFF
          351          KO                                      22
          352          BA  0.0408
          353          PB       2
          354          LS       0       68
          355          UD   0.273

          356          KK  DP107B
          357          KM  COMBINE RT105B AND SC107B
          358          KO                                      22
          359          HC       2
```

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

360          KK  RT107
361          KM  Tributary Route 107B to 109
362          KO                                          22
363          RK    1420  0.0359   0.120          TRAP              2

364          KK  SC109
365          KM  Smith Creek 109 Runoff
366          KO                                          22
367          BA  0.1637
368          PB       2
369          LS       0       69
370          UD   0.350

371          KK  DP109
372          KM  Combine RT107 and SC109
373          KO                                          22
374          HC       2

375          KK  RT109
376          KM  Tributary Route 109 to 111
377          KO                                          22
378          RK    3840  0.0453   0.120          TRAP              2

379          KK  SC111
380          KM  Smith Creek 111 Runoff
381          KO                                          22
382          BA  0.1894
383          PB       2
384          LS       0       69
385          UD   0.382

386          KK  DP111
387          KM  Combine RT109 and SC111
388          KO                                          22
389          HC       2

390          KK  SC407
391          KM  Smith Creek 407 Runoff
392          KO                                          22
393          BA  0.1685
394          PB       2
395          LS       0       68
396          UD   0.423

397          KK  DP407
398          KM  Combine DP111 RT405 and SC407
399          KO                                          22
400          HC       3
```

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

401         KK  RT407A
402         KM  SMITH CREEK ROUTE 407 TO RES407
403         KO                                                  22
404         RK     665  0 0210    0.120              TRAP        1         2

405         KK  RES407
406         KM  REGIONAL POND RES 407
407         KO                                                  22
408         RS       1     STOR       -1
409         SV       0      .44     1.49     2.93     4.75     6.91     9.41    12.27    15.50
410         SE    6990     6992     6994     6996     6998     7000     7002     7004     7006
411         SQ       0       10       25       50       75      450      800     1000     1900
412         SE    6990     6992     6994     6996     6998     7000     7002     7004     7006

413         KK  RT407B
414         KM  ROUTE RES 407 TO DP 506
415         KO                                                  22
416         RK     340  0.0210    0.120              TRAP        1         2

417         KK  SC501
418         KM  Smith Creek 501 Runoff
419         KO                                                  22
420         BA  0.1219
421         PB       2
422         LS       0       68
423         UD   0.312

424         KK  SC503
425         KM  Smith Creek 503 Runoff
426         KO                                                  22
427         BA  0.1193
428         PB       2
429         LS       0       68
430         UD   0 334

431         KK  SC505
432         KM  Smith Creek 505 Runoff
433         KO                                                  22
434         BA  0.1923
435         PB       2
436         LS       0       68
437         UD   0.379

438         KK  DP505
439         KM  Combine SC501 SC503 and SC505
440         KO                                                  22
441         HC       3

442         KK  DP506
443         KM  Combine RT407 and DP505
444         KO                                                  22
445         HC       2
```

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

446         KK  RT506
447         KM  Smith Creek Route 506 to 507
448         KO                                          22
449         RK      750  0.0067  0.0978          TRAP        2         1

450         KK  SC507
451         KM  Smith Creek 507 Runoff
452         KO                                          22
453         BA  0.0958
454         PB        2
455         LS        0        68
456         UD   0.229

457         KK  DP507
458         KM  Combine RT506 and SC507
459         KO                                          22
460         HC        2

461         KK  RT507
462         KM  Smith Creek Route 507 to 509
463         KO                                          22
464         RK     2010  0.0268  0.0978          TRAP        2         1

465         KK  SC509
466         KM  Smith Creek 509 Runoff
467         KO                                          22
468         BA  0.1514
469         PB        2
470         LS        0        68
471         UD   0.405

472         KK  DP509
473         KM  Combine RT507 and SC509
474         KO                                          22
475         HC        2

476         KK  RT509
477         KM  Smith Creek Route 509 to 511
478         KO                                          22
479         RK     2650  0.0160  0.0978          TRAP        2         1

480         KK  SC511
481         KM  Smith Creek 511 Runoff
482         KO                                          22
483         BA  0.0907
484         PB        2
485         LS        0        68
486         UD   0.305
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ID.....1...2...3.....4.....5.....6...7.....8.....9....10
LINE

487          KK  DP511
488          KM  Combine RT509 and SC511
489          KO                                        22
490          HC       2

491          KK  RT511
492          KM  Smith Creek Route 511 to 603
493          KO                                        22
494          RK     670  0.0373  0.0978          TRAP       2        1

495          KK  SC601
496          KM  Smith Creek 601 Runoff
497          KO                                        22
498          BA  0.0633
499          PB       2
500          LS       0       69
501          UD   0.210

502          KK  RT601
503          KM  Tributary Route 601 to 603
504          KO                                        22
505          RK    1170  0.0359   0.090          TRAP                2

506          KK  SC603
507          KM  Smith Creek 603 Runoff
508          KO                                        22
509          BA  0.2514
510          PB       2
511          LS       0       68
512          UD   0.289

513          KK  DP603
514          KM  Combine RT601 and SC603
515          KO                                        22
516          HC       2

517          KK  DP604
518          KM  Combine RT511 and DP603
519          KO                                        22
520          HC       2

521          KK  RT604
522          KM  Smith Creek Route 604 to 609
523          KO                                        22
524          RK    1380  0.0236  0.0928          TRAP       2        1

525          KK  SC607
526          KM  Smith Creek 607 Runoff
527          KO                                        22
528          BA  0.0840
529          PB       2
530          LS       0       69
531          UD   0.270
```

```
ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
 532          KK  SC609
 533          KM  Smith Creek 609 Runoff
 534          KO                                          22
 535          BA  0.1389
 536          PB       2
 537          LS       0      69
 538          UD   0.326

 539          KK  DP609
 540          KM  Combine RT604 SC607 and SC609
 541          KO                                          22
 542          HC       3

 543          KK  RES610
 544          KM  Smith Creek Reservoir Route 610
 545          KO                                          22
 546          RS       1    STOR      -1
 547          SA     2.2     2.7     3.3     3.8     4.4     5.1     5.8
 548          SE    6822    6823    6824    6825    6826    6827    6828
 549          SQ       0      11     701    2361    4843   10331   16010
 550          SE    6822    6823    6824    6825    6826    6827    6828

 551          KK  SC605A
 552          KM  Smith Creek 605A Runoff
 553          KO                                          22
 554          BA  0.0505
 555          PB       2
 556          LS       0      68
 557          UD   0.252

 558          KK  RT605
 559          KM  SMITH CREEK ROUTE 605 TO DP610
 560          KO                                          22
 561          RK    2000    0.03   0.013            TRAP       2       2

 562          KK  SC605B
 563          KM  SMITH CREEK 605B RUNOFF
 564          KO                                          22
 565          BA  0.0778
 566          PB       2
 567          LS       0      75
 568          UD   0.252

 569          KK  RES605
 570          KM  FUTURE POND 605
 571          KO                                          22
 572          RS       1    STOR      -1
 573          SV       0   0.099   0.218    0.36   0.526   0.718   0.937   1.185   1.463
1.773
 574          SV   2.117   2.496   2.912
 575          SE    6818    6819    6820    6821    6822    6823    6824    6825    6826
6827
 576          SE    6828    6829    6830
 577          SQ       0    5.18   19.37   40.40   65.78   92.88  119.23  143.30  162.05
176.76
 578          SQ  190.33  202.99  214.91
 579          SE    6818    6819    6820    6821    6822    6823    6824    6825    6826
6827
```

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

580          SE    6828    6829    6830

581          KK  DP610
582          KM  COMBINE RES 610 RES 605 AND RT605
583          KO                                          22
584          HC       3

585          KK  RT610
586          KM  Smith Creek Route 610 to 611
587          KO                                          22
588          RK    3200  0.0226   0.090             TRAP       2       1

589          KK  SC611
590          KM  Smith Creek 611 Runoff
591          KO                                          22
592          BA  0.1095
593          PB       2
594          LS       0       69
595          UD   0.149

596          KK  DP611
597          KM  Combine RT610 and SC611
598          KO                                          22
599          HC       2

600          KK  RES612
601          KM  Smith Creek Reservoir Route 612
602          KO                                          22
603          RS       1    STOR      -1
604          SA    1.82    2.77    3.72     4.5    5.28    5.78
605          SE    6762    6763    6764    6765    6766  6766.5
606          SQ       0     150     510    1160    2120    2680
607          SE    6762    6763    6764    6765    6766  6766.5

608          KK  RT612
609          KM  Smith Creek Route 612 to 617
610          KO                                          22
611          RK    2250  0.0240  0.0866             TRAP       2       1

612          KK  SC613
613          KM  Smith Creek 613 Runoff
614          KO                                          22
615          BA  0.1233
616          PB       2
617          LS       0       75
618          UD   0.270

619          KK  RES613
620          KM  EXISTING POND 613
621          KO                                          22
622          RS       1    STOR      -1
623          SA    0.12    0.96    1.09    1.21    1.34    1.47
624          SE    6794    6796    6798    6800    6802    6804
625          SQ    4.67    7.44    9.43   22.99   29.35   34.42
626          SE    6794    6796    6798    6800    6802    6804
```

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

          627          KK  RT618
          628          KM  SMITH CREEK ROUTE RES613 TO DP  618
          629          KO                                        22
          630          RK    1100    0 030    0 013            TRAP        2        2

          631          KK  SC617A
          632          KM
          633          KO                                        22
          634          BA  0 0149
          635          PB        2
          636          LS        0       73
          637          UD   0 162

          638          KK  RES617
          639          KM  FUTURE POND 617
          640          KO                                        22
          641          RS        1     STOR       -1
          642          SV     6740     6745     6748     6750
          643          SE        0      0 5      1 0      1 5
          644          SQ        0       30       40       63
          645          SE     6740     6745     6748     6750

          646          KK  SC618
          647          KM  SMITH CREEK 618 RUNOFF
          648          KO                                        22
          649          BA   0 007
          650          PB        2
          651          LS        0       73
          652          UD    0 15

          653          KK  RES618
          654          KM  FUTURE POND 618
          655          KO                                        22
          656          RS        1     STOR       -1
          657          SV        0      0 5      1 0
          658          SE     6768     6770     6772
          659          SQ        0        3        6
          660          SE     6768     6770     6772

          661          KK  DP618
          662          KM  COMBINE RES 613 RES 618 AND RT618
          663          KO                                        22
          664          HC        3

          665          KK  SC615B
          666          KM  Smith Creek 615B Runoff
          667          KO                                        22
          668          BA  0 0313
          669          PB        2
          670          LS        0       78
          671          UD   0 160
```

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

          672          KK  RES614
          673          KM  EXISTING POND 614
          674          KO                                          22
          675          RS       1     STOR       -1
          676          SV       0    0.067     0.32     0.67     1.16      1.5
          677          SE    6722     6724     6726     6728     6730     6732
          678          SQ       0        4        6       10     13.3       20
          679          SE    6722     6724     6726     6728     6730     6732

          680          KK  SC615A
          681          KM  SMITH CREEK 615A
          682          KO                                          22
          683          BA  0.0567
          684          PB       2
          685          LS       0       74
          686          UD    0.18

          687          KK  RES615
          688          KM  SMITH CREEK RESEVOIR ROUTE 615
          689          KO                                          22
          690          RS       1     STOR       -1
          691          SV       0        1        2      2.5
          692          SE    6726     6728     6730     6732
          693          SQ       0        5       10     16.7
          694          SE    6724     6726     6728     6729

          695          KK  SC617C
          696          KM  SMITH CREEK 617C Runoff
          697          KO                                          22
          698          BA   .0482
          699          PB       2
          700          LS       0       65
          701          UD     .17

          702          KK  DP613
          703          KM  COMBINE DP 618 RES 615 RES 614 SC 617C AND RT 612
          704          KO                                          22
          705          HC       5

          706          KK  RT614
          707          KM  SMITH CREEK ROUTE 613 TO 617
          708          KO                                          22
          709          RK    1200    0.022    0.030                TRAP       2        4

          710          KK  SC617B
          711          KM  Smith Creek 617B Runoff
          712          KO                                          22
          713          BA  0.0215
          714          PB       2
          715          LS       0       69
          716          UD   0.228
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ID.   LINE  1....2....3....4....5....6....7....8....9....10

 717          KK  DP617
 718          KM  Combine RT614 AND SC6178
 719          KO                                          22
 720          HC       2

 721          KK  RT617
 722          KM  Smith Creek Route 617 to 703
 723          KO                                          22
 724          RK    1470  0.0061    0.085          TRAP        2         1

 725          KK  SC701
 726          KM  Smith Creek 701 Runoff
 727          KO                                          22
 728          BA  0.0722
 729          PB       2
 730          LS       0       92
 731          UD   0.360

 732          KK  SC703
 733          KM  Smith Creek 703 Runoff
 734          KO                                          22
 735          BA  0.1305
 736          PB       2
 737          LS       0       77
 738          UD   0.092

 739          KK  DP703
 740          KM  Combine RT617 SC701 and SC703
 741          KO                                          22
 742          HC       3

 743          KK  RT703
 744          KM  Smith Creek Route 703 to 705
 745          KO                                          22
 746          RK    2780  0.0338  0.0786           TRAP        3         1

 747          KK  SC705
 748          KM  Smith Creek 705 Runoff
 749          KO                                          22
 750          BA  0.0869
 751          PB       2
 752          LS       0       69
 753          UD   0.329

 754          KK  DP705
 755          KM  Combine RT703 and SC705
 756          KO                                          22
 757          HC       2
 758          ZZ
```

HEC1 S/N: 1343001909 HMVersion: 6.33 Data File: C:\WINNT\TEMP\~vbh0D20.TMP

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

MAXIMUM STAGE	TIME OF OPERATION MAX STAGE	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA
	HYDROGRAPH AT	SC205	5.	6.00	1	1.	0.	0.10
	ROUTED TO	RT205	5.	6.00	1.	1.	0.	0.10
	HYDROGRAPH AT	SC207	5.	6.00	2.	1.	0.	0.12
	HYDROGRAPH AT	SC213	4.	6.00	1.	1.	0.	0.12
	3 COMBINED AT	DP213	14.	6.00	4.	2.	1.	0.34
	ROUTED TO	RT213	13.	6.00	4.	2.	1.	0.34
	HYDROGRAPH AT	SC209	2.	6.25	1.	0.	0.	0.14
	HYDROGRAPH AT	SC211	1.	6.50	0.	0.	0.	0.08
	HYDROGRAPH AT	SC215	3	6.00	1.	0.	0.	0.06
	4 COMBINED AT	DP215	18.	6.00	6.	3.	1.	0.62
	ROUTED TO	RT215	17.	6.25	6.	3.	1.	0.62
	HYDROGRAPH AT	SC219	1.	6.50	1.	0.	0.	0.13
	2 COMBINED AT	DP219	18.	6.25	7.	3.	1.	0.75
	HYDROGRAPH AT	SC201	1.	6.25	1.	0.	0.	0.12
	ROUTED TO	RT201	1.	6.25	1.	0.	0.	0.12
	HYDROGRAPH AT	SC203	1.	6.25	0.	0.	0.	0.11
	2 COMBINED AT	DP203	2.	6.25	1.	1.	0.	0.23
	ROUTED TO	RT203	2.	6.50	1.	1.	0.	0.23
	HYDROGRAPH AT	SC217	0.	6.25	0.	0.	0.	0.05
	2 COMBINED AT	DP217	3	6.50	1.	1.	0.	0.29
	2 COMBINED AT	DP220	21.	6.25	8.	4.	1.	1.03
	ROUTED TO	RT220	20	6.25	8.	4	1.	1.03
	HYDROGRAPH AT	SC301	6.	6.00	2.	1	0.	0.12

HYDROGRAPH AT	SC303	6.	6.00	2	1.	0	0.13
2 COMBINED AT	DP303	13.	6.00	3	1	0.	0.25
ROUTED TO	RT303	12.	6.00	3	1	0.	0.25
HYDROGRAPH AT	SC305	3.	6.00	1.	0.	0.	0.06
2 COMBINED AT	DP305	15.	6.00	4.	2.	1.	0.31
ROUTED TO	RT305	13.	6.00	4	2.	1.	0.31
HYDROGRAPH AT	SC307	4.	6.25	1.	1.	0.	0.11
HYDROGRAPH AT	SC309	6.	6.00	2.	1.	0.	0.12
HYDROGRAPH AT	SC311	5.	6.00	1.	1.	0.	0.11
4 COMBINED AT	DP311	28.	6.00	8.	3.	1.	0.65
ROUTED TO	RT311	27.	6.25	8.	3.	1.	0.65
HYDROGRAPH AT	SC313	6.	6.00	2.	1.	0.	0.15
HYDROGRAPH AT	SC315	4.	6.00	1.	0.	0.	0.09
3 COMBINED AT	DP315	35.	6.25	11	5.	2.	0.89
2 COMBINED AT	DP316	55.	6.25	19.	8.	3.	1.92
ROUTED TO	RES316	42.	6.75	18	8	3.	1.92
7166.98 6.75							
ROUTED TO	RT316	42.	6.75	18.	8.	3.	1.92
HYDROGRAPH AT	SC401	7.	6.00	2.	1.	0.	0.15
2 COMBINED AT	DP401	45.	6.75	20.	9.	3.	2.08
ROUTED TO	RT401	44.	6.75	20.	9.	3	2.08
HYDROGRAPH AT	SC403	5.	6.00	1.	1	0.	0.10
HYDROGRAPH AT	SC405	4.	6.00	1	0	0.	0.07
3 COMBINED AT	DP405	48.	6.75	22.	10	3.	2.25
ROUTED TO	RT405	46.	7.00	22.	10.	3	2.25
HYDROGRAPH AT	SC101	1.	6.25	1.	0	0.	0.09
ROUTED TO	RT101	1.	6.25	1.	0	0.	0.09

HYDROGRAPH AT	SC103	4.	6.00	1.	1.	0.	0.17
HYDROGRAPH AT	SC105A	5	6.00	1.	0.	0.	0.07
3 COMBINED AT	DP103	9	6.00	3.	1.	0	0.33
ROUTED TO	RES106	8.	6.25	3.	1.	0	0.33
7320.31	6.25						
ROUTED TO	RT103	8.	6.50	3.	1.	0.	0.33
HYDROGRAPH AT	SC105B	4.	6.00	1.	0.	0.	0.07
2 COMBINED AT	DP105	10.	6.25	4.	2.	1.	0.40
ROUTED TO	RT105A	10.	6.50	4.	2.	1.	0.40
HYDROGRAPH AT	SC107A	9.	6.00	2.	1.	0	0.14
ROUTED TO	RES108	7.	6.00	2.	1.	0	0.14
7340.73	6.00						
2 COMBINED AT	DP107A	17.	6.25	6.	3.	1.	0.53
ROUTED TO	RT105B	17.	6.25	6.	3.	1.	0.53
HYDROGRAPH AT	SC107B	2.	6.00	1.	0.	0.	0.04
2 COMBINED AT	DP107B	18.	6.25	7.	3.	1.	0.57
ROUTED TO	RT107	17.	6.50	7.	3.	1.	0.57
HYDROGRAPH AT	SC109	9.	6.00	2.	1.	0	0.16
2 COMBINED AT	DP109	24.	6.25	9.	4.	1.	0.74
ROUTED TO	RT109	24.	6.50	9.	4.	1.	0.74
HYDROGRAPH AT	SC111	10.	6.00	3.	1.	0.	0.19
2 COMBINED AT	DP111	30.	6.50	12	5.	2.	0.93
HYDROGRAPH AT	SC407	7.	6.25	2.	1.	0.	0.17
3 COMBINED AT	DP407	76.	6.75	35.	15.	5.	3.34
ROUTED TO	RT407A	75.	6.75	35.	16.	5	3.34
ROUTED TO	RES407	56.	7.50	34	16.	5.	3.34
6996.52	7.50						
ROUTED TO							

	RT407B	56.	7.50	34	16	5	3.34
HYDROGRAPH AT							
	SC501	6.	6.00	2.	1	0	0.12
HYDROGRAPH AT							
	SC503	6.	6.00	2.	1.	0	0.12
HYDROGRAPH AT							
	SC505	8.	6.00	2.	1	0.	0.19
3 COMBINED AT							
	DP505	20.	6.00	6.	2.	1	0.43
2 COMBINED AT							
	DP506	62.	7.50	39.	18.	6.	3.77
ROUTED TO							
	RT506	62.	7.50	39.	18	6	3.77
HYDROGRAPH AT							
	SC507	5.	6.00	1.	1.	0.	0.10
2 COMBINED AT							
	DP507	63.	7.50	40.	18.	6.	3.87
ROUTED TO							
	RT507	63.	7.75	39.	18.	6.	3.87
HYDROGRAPH AT							
	SC509	6.	6.00	2.	1.	0.	0.15
2 COMBINED AT							
	DP509	65.	7.50	41.	19.	6.	4.02
ROUTED TO							
	RT509	65.	7.75	41.	19.	6.	4.02
HYDROGRAPH AT							
	SC511	5.	6.00	1.	0.	0.	0.09
2 COMBINED AT							
	DP511	66.	7.75	42.	20.	7.	4.11
ROUTED TO							
	RT511	66.	7.75	42.	20.	7.	4.11
HYDROGRAPH AT							
	SC601	4.	5.75	1.	0.	0.	0.06
ROUTED TO							
	RT601	4.	6.00	1	0.	0.	0.06
HYDROGRAPH AT							
	SC603	13.	6.00	3.	1.	0.	0.25
2 COMBINED AT							
	DP603	17.	6.00	4.	2.	1.	0.31
2 COMBINED AT							
	DP604	70.	7.75	45.	21.	7	4.43
ROUTED TO							
	RT604	69.	7.75	45.	21.	7	4 43
HYDROGRAPH AT							
	SC607	5.	6.00	1.	0.	0	0.03
HYDROGRAPH AT							
	SC609	8.	6.00	2.	1.	0	0 14
3 COMBINED AT							
	DP609	72.	7 75	48.	22.	8	4.65
ROUTED TO							
	RES610	72.	7 75	46.	22.	8.	4 65
6823.09	7 75						
HYDROGRAPH AT							

	SC605A	3	6.00	1	0	0.	0.05
ROUTED TO							
	RT605	3.	6.00	1.	0	0	0.05
HYDROGRAPH AT							
	SC605B	12.	6.00	2.	1	0.	0.08
ROUTED TO							
	RES605	11.	6.00	2.	1.	0.	0.08
6819.40	6.00						
3 COMBINED AT							
	DP610	74.	7.75	48.	23.	8.	4.78
ROUTED TO							
	RT610	74.	8.00	47.	23.	8.	4.78
HYDROGRAPH AT							
	SC611	10	5.75	2.	1.	0.	0.11
2 COMBINED AT							
	DP611	75.	8.00	48.	24.	8.	4.89
ROUTED TO							
	RES612	74.	8.00	48.	24.	8.	4.89
6762.50	8.00						
ROUTED TO							
	RT612	74.	8.25	48.	24.	8.	4.89
HYDROGRAPH AT							
	SC613	19.	6.00	4.	1.	0.	0.12
ROUTED TO							
	RES613	6.	6.50	5.	5	5	0.12
6795.04	6.50						
ROUTED TO							
	RT618	6.	6.50	5.	5.	5.	0.12
HYDROGRAPH AT							
	SC617A	2.	5.75	0.	0.	0.	0.01
ROUTED TO							
	RES617	0.	0.25	0.	0.	0.	0.01
1.56	24.00						
HYDROGRAPH AT							
	SC618	1.	5.75	0.	0.	0.	0.01
ROUTED TO							
	RES618	0.	6.50	0	0.	0.	0.01
6768.15	6.50						
3 COMBINED AT							
	DP618	6.	6.50	5.	5.	5.	0.15
HYDROGRAPH AT							
	SC615B	9.	5.75	1.	0.	0	0.03
ROUTED TO							
	RES614	4.	6.00	1.	0.	0.	0.03
6724.48	6.00						
HYDROGRAPH AT							
	SC615A	10.	5.75	1	1	0.	0.06
ROUTED TO							
	RES615	6.	6.00	1.	1	0.	0.06
6726.20	6.00						
HYDROGRAPH AT							

	SC617C	1.	5. 75	0.	0.	0.	0. 05
5 COMBINED AT							
	DP613	81.	8. 00	55.	30	13.	5. 17
ROUTED TO							
	RT614	81.	8. 00	55.	30	13.	5. 17
HYDROGRAPH AT							
	SC617B	1	6. 00	0.	0.	0	0 02
2 COMBINED AT							
	DP617	81	8. 00	55.	30.	13.	5. 19
ROUTED TO							
	RT617	81.	8. 25	55.	30.	13.	5 19
HYDROGRAPH AT							
	SC701	46.	6. 00	8.	2.	1.	0 07
HYDROGRAPH AT							
	SC703	40.	5. 75	5.	2.	1.	0. 13
3 COMBINED AT							
	DP703	85.	8. 00	64.	34.	15.	5. 39
ROUTED TO							
	RT703	85.	8. 25	64.	34	15.	5. 39
HYDROGRAPH AT							
	SC705	5.	6. 00	1.	1.	0.	0. 09
2 COMBINED AT							
	DP705	87.	6. 00	65.	34.	15.	5. 48

SUMMARY OF KINEMATIC WAVE - MUSKINGUM-CUNGE ROUTING
(FLOW IS DIRECT RUNOFF WITHOUT BASE FLOW)

ISTAQ	ELEMENT	DT	PEAK	TIME TO PEAK	VOLUME	INTERPOLATED TO COMPUTATION INTERVAL DT	PEAK	TIME TO PEAK	VOLUME
		(MIN)	(CFS)	(MIN)	(IN)	(MIN)	(CFS)	(MIN)	(IN)
RT205	MANE	2.10	4.96	363.33	0.19	15.00	4.66	360.00	0.20

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1006E+01 EXCESS=0.0000E+00 OUTFLOW=0.1006E+01 BASIN STORAGE= 0.6242E-09 PERCENT ERROR= 0.0

RT213	MANE	1.41	14.37	363.56	0.19	15.00	13.07	360.00	0.19

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.3404E+01 EXCESS=0.0000E+00 OUTFLOW=0.3404E+01 BASIN STORAGE= 0.2477E-08 PERCENT ERROR= 0.0

RT215	MANE	2.57	17.91	366.38	0.16	15.00	17.37	375.00	0.16

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.5130E+01 EXCESS=0.0000E+00 OUTFLOW=0.5127E+01 BASIN STORAGE= 0.1756E-07 PERCENT ERROR= 0.0

RT201	MANE	2.92	1.41	379.61	0.10	15.00	1.38	375.00	0.10

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.6596E+00 EXCESS=0.0000E+00 OUTFLOW=0.6594E+00 BASIN STORAGE= 0.6243E-09 PERCENT ERROR= 0.0

RT203	MANE	3.81	2.07	383.26	0.09	15.00	2.07	390.00	0.09

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1093E+01 EXCESS=0.0000E+00 OUTFLOW=0.1092E+01 BASIN STORAGE= 0.7516E-08 PERCENT ERROR= 0.0

RT220	MANE	1.02	20.59	376.60	0.13	15.00	20.20	375.00	0.13

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.7068E+01 EXCESS=0.0000E+00 OUTFLOW=0.7068E+01 BASIN STORAGE= 0.1934E-07 PERCENT ERROR= 0.0

RT303	MANE	1.20	12.53	362.29	0.19	15.00	11.88	360.00	0.20

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.2589E+01 EXCESS=0.0000E+00 OUTFLOW=0.2589E+01 BASIN STORAGE= 0.1605E-09 PERCENT ERROR= 0.0

RT305	MANE	2.33	15.03	364.45	0.20	15.00	13.15	360.00	0.20

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.3251E+01 EXCESS=0.0000E+00 OUTFLOW=0.3250E+01 BASIN STORAGE= 0.5245E-08 PERCENT ERROR= 0.0

RT311	MANE	3.61	27.83	367.32	0.19	15.00	26.57	375.00	0.19

CONTINUITY SUMMARY (AC-FT) - INFLOW=0 6766E+01 EXCESS=0 0000E+00 OUTFLOW=0 6761E+01 BASIN STORAGE=
0 5757E-07 PERCENT ERROR= 0 1

RT316 MANE 4 00 41 81 411 27 0 16 15 00 41 63 405 00
0 16

CONTINUITY SUMMARY (AC-FT) - INFLOW=0 1614E+02 EXCESS=0 0000E+00 OUTFLOW=0 1613E+02 BASIN STORAGE=
0 4497E-06 PERCENT ERROR= 0 1

RT401 MANE 0 89 45 02 407 23 0 16 15 00 44 40 405 00
0 16

CONTINUITY SUMMARY (AC-FT) - INFLOW=0 1768E+02 EXCESS=0 0000E+00 OUTFLOW=0 1768E+02 BASIN STORAGE=
0 1786E-06 PERCENT ERROR= 0 0

RT405 MANE 2 82 47 59 412 41 0 16 15 00 46 49 420 00
0 16

CONTINUITY SUMMARY (AC-FT) - INFLOW=0 1944E+02 EXCESS=0 0000E+00 OUTFLOW=0 1944E+02 BASIN STORAGE=
0 8587E-06 PERCENT ERROR= 0 0

RT101 MANE 3 92 1 45 381 61 0 12 15 00 1 44 375 00
0 12

CONTINUITY SUMMARY (AC-FT) - INFLOW=0 5779E+00 EXCESS=0 0000E+00 OUTFLOW=0 5776E+00 BASIN STORAGE=
0 2828E-08 PERCENT ERROR= 0 1

RT103 MANE 1 37 7 79 377 94 0 15 15 00 7 74 390 00
0 15

CONTINUITY SUMMARY (AC-FT) - INFLOW=0 2669E+01 EXCESS=0 0000E+00 OUTFLOW=0 2669E+01 BASIN STORAGE=
0 3956E-08 PERCENT ERROR= 0 0

RT105A MANE 1 54 10 40 378 83 0 16 15 00 10 07 390 00
0 16

CONTINUITY SUMMARY (AC-FT) - INFLOW=0 3466E+01 EXCESS=0 0000E+00 OUTFLOW=0 3466E+01 BASIN STORAGE=
0 9233E-08 PERCENT ERROR= 0 0

RT105B MANE 1 42 16 96 377 16 0 18 15 00 16 63 375 00
0 18

CONTINUITY SUMMARY (AC-FT) - INFLOW=0 5053E+01 EXCESS=0 0000E+00 OUTFLOW=0 5053E+01 BASIN STORAGE=
0 1347E-07 PERCENT ERROR= 0 0

RT107 MANE 2 68 17 95 381 17 0 18 15 00 16 90 390 00
0 18

CONTINUITY SUMMARY (AC-FT) - INFLOW=0 5487E+01 EXCESS=0 0000E+00 OUTFLOW=0 5484E+01 BASIN STORAGE=
0 6814E-07 PERCENT ERROR= 0 0

RT109 MANE 6 28 24 13 386 63 0 19 15 00 23 87 390 00
0 19

CONTINUITY SUMMARY (AC-FT) - INFLOW=0 7372E+01 EXCESS=0 0000E+00 OUTFLOW=0 7368E+01 BASIN STORAGE=
0 7212E-06 PERCENT ERROR= 0 0

RT407A MANE 1 22 75 96 407 67 0 17 15 00 75 19 405 00
0 17

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.3075E+02 EXCESS=0.0000E+00 OUTFLOW=0.3075E+02 BASIN STORAGE=
0.7713E-06 PERCENT ERROR= 0.0

RT407B MANE 0.60 56.48 451.42 0.17 15.00 56.40 450.00
0.17

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.3078E+02 EXCESS=0.0000E+00 OUTFLOW=0.3078E+02 BASIN STORAGE=
0.4540E-06 PERCENT ERROR= 0.0

RT506 MANE 1.58 62.01 453.25 0.18 15.00 61.85 450.00
0.18

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.3528E+02 EXCESS=0.0000E+00 OUTFLOW=0.3528E+02 BASIN STORAGE=
0.1774E-05 PERCENT ERROR= 0.0

RT507 MANE 2.54 62.98 455.63 0.18 15.00 62.57 465.00
0.18

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.3629E+02 EXCESS=0.0000E+00 OUTFLOW=0.3628E+02 BASIN STORAGE=
0.3948E-05 PERCENT ERROR= 0.0

RT509 MANE 3.95 64.60 459.45 0.18 15.00 64.56 465.00
0.18

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.3784E+02 EXCESS=0.0000E+00 OUTFLOW=0.3783E+02 BASIN STORAGE=
0.9564E-05 PERCENT ERROR= 0.0

RT511 MANE 0.74 65.67 466.44 0.18 15.00 65.58 465.00
0.18

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.3876E+02 EXCESS=0.0000E+00 OUTFLOW=0.3875E+02 BASIN STORAGE=
0.2392E-05 PERCENT ERROR= 0.0

RT601 MANE 2.73 3.90 350.74 0.22 15.00 3.87 360.00
0.22

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.7321E+00 EXCESS=0.0000E+00 OUTFLOW=0.7318E+00 BASIN STORAGE=
0.1225E-08 PERCENT ERROR= 0.0

RT604 MANE 1.80 69.44 467.99 0.18 15.00 69.24 465.00
0.18

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.4211E+02 EXCESS=0.0000E+00 OUTFLOW=0.4211E+02 BASIN STORAGE=
0.6390E-05 PERCENT ERROR= 0.0

RT605 MANE 1.39 2.60 362.21 0.19 15.00 2.51 360.00
0.20

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.5238E+00 EXCESS=0.0000E+00 OUTFLOW=0.5237E+00 BASIN STORAGE=
0.1585E-09 PERCENT ERROR= 0.0

RT610 MANE 3.82 74.33 474.23 0.18 15.00 73.90 480.00
0.18

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.4681E+02 EXCESS=0.0000E+00 OUTFLOW=0.4680E+02 BASIN STORAGE=
0.2599E-04 PERCENT ERROR= 0.0

RT612 MANE 2.60 74.35 485.08 0.18 15.00 73.95 495.00
0.18

CONTINUITY SUMMARY (AC-FT) - INFLOW=0 4803E+02 EXCESS=0 0000E+00 OUTFLOW=0 4802E+02 BASIN STORAGE=
0.2431E-04 PERCENT ERROR= 0.0

RT618 MANE 0.68 6.10 391.61 4.23 15 00 6.09 390.00
4.23

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.2785E+02 EXCESS=0.0000E+00 OUTFLOW=0.2784E+02 BASIN STORAGE=
0.9394E-02 PERCENT ERROR= 0 0

RT614 MANE 0.86 80 94 481.61 0 28 15.00 80.75 480.00
0.28

CONTINUITY SUMMARY (AC-FT) - INFLOW=0 7815E+02 EXCESS=0.0000E+00 OUTFLOW=0.7814E+02 BASIN STORAGE=
0.7568E-02 PERCENT ERROR= 0.0

RT617 MANE 2.76 80.96 486.55 0.28 15.00 80.85 495.00
0.28

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.7840E+02 EXCESS=0.0000E+00 OUTFLOW=0.7835E+02 BASIN STORAGE=
0.5377E-01 PERCENT ERROR= 0.0

RT703 MANE 2.45 85.08 484.91 0.30 15.00 84.87 495.00
0.30

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.8621E+02 EXCESS=0.0000E+00 OUTFLOW=0.8611E+02 BASIN STORAGE=
0.7929E-01 PERCENT ERROR= 0.0

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

5 year future-Alternate 3
HEC1 S/N: 1343001909 HMVersion 6.33 Data File: C:\WINNT\TEMP\~vbh2F68.TMP

```
**************************************
**************************************
*                                    *
*                                    *
*   FLOOD HYDROGRAPH PACKAGE (HEC-1) *
U.S. ARMY CORPS OF ENGINEERS      *
*              MAY  1991             *
HYDROLOGIC ENGINEERING CENTER     *
*           VERSION 4.0.1E           *
609 SECOND STREET           *
*                                    *
DAVIS, CALIFORNIA 95616        *
*  RUN DATE  06/20/2001  TIME  14:37:43 *
(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

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

    1          ID  Type IIA storm
    2          IT      15        0        0      288
    3          IO       5

    4          KK  SC205
    5          KM  Smith Creek 205 Runoff
    6          KO                                    22
    7          BA  0.0970
    8          PB     2.6
    9          IN      15
   10          PC  0.0005  0.0015  0.0030  0.0045  0.0060  0.0080  0.0100  0.0120  0.0143
0.0165
   11          PC  0.0188  0.0210  0.0233  0.0255  0.0278  0.0320  0.0390  0.0460  0.0530
0.0600
   12          PC  0.0750  0.1000  0.4000  0.7000  0.7250  0.7500  0.7650  0.7800  0.7900
0.8000
   13          PC  0.8100  0.8200  0.8250  0.8300  0.8350  0.8400  0.8450  0.8500  0.8550
0.8600
   14          PC  0.8638  0.8675  0.8713  0.8750  0.8788  0.8825  0.8863  0.8900  0.8938
0.8975
   15          PC  0.9013  0.9050  0.9083  0.9115  0.9148  0.9180  0.9210  0.9240  0.9270
0.9300
   16          PC  0.9325  0.9350  0.9375  0.9400  0.9425  0.9450  0.9475  0.9500  0.9525
0.9550
   17          PC  0.9575  0.9600  0.9625  0.9650  0.9675  0.9700  0.9725  0.9750  0.9775
0.9800
   18          PC  0.9813  0.9825  0.9838  0.9850  0.9863  0.9875  0.9888  0.9900  0.9913
0.9925
   19          PC  0.9938  0.9950  0.9963  0.9975  0.9988  1.0000
   20          LS       0      68
   21          UD   0.257

   22          KK  RT205
   23          KM  Smith Creek Route 205 to 213
   24          KO                                    22
   25          RK    1530  0.0431   0.055            TRAP              2

   26          KK  SC207
   27          KM  Smith Creek 207 Runoff
   28          KO                                    22
   29          BA    0.12
   30          PB     2.6
   31          LS       0      68
   32          UD   0.367

   33          KK  SC213
   34          KM  Smith Creek 213 Runoff
   35          KO                                    22
   36          BA  0.1243
   37          PB     2.6
   38          LS       0      67
   39          UD   0.361

   40          KK  DP213
   41          KM  Combine RT205 SC207 and SC213
   42          KO                                    22
   43          HC       3

   44          KK  RT213
   45          KM  Smith Creek Route 213 to 215
   46          KO                                    22
   47          RK    1360  0.0493   0.055            TRAP              2
```

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

  48          KK  SC209
  49          KM  Smith Creek 209 Runoff
  50          KO                                          22
  51          BA  0.1351
  52          PB     2.6
  53          LS        0       63
  54          UD   0.336

  55          KK  SC211
  56          KM  Smith Creek 211 Runoff
  57          KO                                          22
  58          BA  0.0799
  59          PB     2.6
  60          LS        0       62
  61          UD   0.418

  62          KK  SC215
  63          KM  Smith Creek 215 Runoff
  64          KO                                          22
  65          BA  0.0589
  66          PB     2.6
  67          LS        0       68
  68          UD   0.227

  69          KK  DP215
  70          KM  Combine RT213 SC209 SC211 and SC215
  71          KO                                          22
  72          HC        4

  73          KK  RT215
  74          KM  Smith Creek Route 215 to 219
  75          KO                                          22
  76          RK    2110  0.0446  0.0745             TRAP              2

  77          KK  SC219
  78          KM  Smith Creek 219 Runoff
  79          KO                                          22
  80          BA  0.1298
  81          PB     2.6
  82          LS        0       62
  83          UD   0.362

  84          KK  DP219
  85          KM  Combine RT215 and SC219
  86          KO                                          22
  87          HC        2

  88          KK  SC201
  89          KM  Smith Creek 201 Runoff
  90          KO                                          22
  91          BA  0.1216
  92          PB     2.6
  93          LS        0       63
  94          UD   0.340
```

HEC-1 INPUT

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

  95          KK  RT201
  96          KM  Tributary Route 201 to 203
  97          KO                                          22
  98          RK    1650  0.0509   0.055          TRAP                 2

  99          KK  SC203
 100          KM  Smith Creek 203 Runoff
 101          KO                                          22
 102          BA  0.1113
 103          PB     2.6
 104          LS       0       61
 105          UD   0.223

 106          KK  DP203
 107          KM  Combine RT201 and SC203
 108          KO                                          22
 109          HC       2

 110          KK  RT203
 111          KM  Tributary Route 203 to 217
 112          KO                                          22
 113          RK    2010  0.0557  0.0698          TRAP                 2

 114          KK  SC217
 115          KM  Smith Creek 217 Runoff
 116          KO                                          22
 117          BA  0.0547
 118          PB     2.6
 119          LS       0       62
 120          UD   0.211

 121          KK  DP217
 122          KM  Combine RT203 and SC217
 123          KO                                          22
 124          HC       2

 125          KK  DP220
 126          KM  Combine DP217 and DP219
 127          KO                                          22
 128          HC       2

 129          KK  RT220
 130          KM  Smith Creek Route 220 to 316
 131          KO                                          22
 132          RK     646  0.0313  0.0829          TRAP        1        2

 133          KK  SC301
 134          KM  Smith Creek 301 Runoff
 135          KO                                          22
 136          BA  0.1196
 137          PB     2.6
 138          LS       0       68
 139          UD   0.279
```

HEC-1 INPUT

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

          140         KK  SC303
          141         KM  Smith Creek 303 Runoff
          142         KO                                      22
          143         BA  0.1300
          144         PB     2.6
          145         LS       0       68
          146         UD   0.314

          147         KK  DP303
          148         KM  Combine SC301 and SC303
          149         KO                                      22
          150         HC       2

          151         KK  RT303
          152         KM  Tributary Route 303 to 305
          153         KO                                      22
          154         RK     940  0.0372   0.055            TRAP              2

          155         KK  SC305
          156         KM  Smith Creek 305 Runoff
          157         KO                                      22
          158         BA  0.0629
          159         PB     2.6
          160         LS       0       68
          161         UD   0.261

          162         KK  DP305
          163         KM  Combine RT303 and SC305
          164         KO                                      22
          165         HC       2

          166         KK  RT305
          167         KM  Tributary Route 305 to 311
          168         KO                                      22
          169         RK    2150  0.0414   0.055            TRAP              2

          170         KK  SC307
          171         KM  Smith Creek 307 Runoff
          172         KO                                      22
          173         BA  0.1081
          174         PB     2.6
          175         LS       0       68
          176         UD   0.472

          177         KK  SC309
          178         KM  Smith Creek 309 Runoff
          179         KO                                      22
          180         BA  0.1240
          181         PB     2.6
          182         LS       0       68
          183         UD   0.366
```

HEC-1 INPUT

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

  184          KK  SC311
  185          KM  Smith Creek 311 Runoff
  186          KO                                                    22
  187          BA  0.1064
  188          PB     2.6
  189          LS       0       68
  190          UD   0.234

  191          KK  DP311
  192          KM  Combine RT305 SC307 SC309 and SC311
  193          KO                                                    22
  194          HC       4

  195          KK  RT311
  196          KM  Tributary Route 311 to 315
  197          KO                                                    22
  198          RK    2860  0.0448  0.0888             TRAP                  2

  199          KK  SC313
  200          KM  Smith Creek 313 Runoff
  201          KO                                                    22
  202          BA  0.1520
  203          PB     2.6
  204          LS       0       67
  205          UD   0.352

  206          KK  SC315
  207          KM  Smith Creek 315 Runoff
  208          KO                                                    22
  209          BA  0.0886
  210          PB     2.6
  211          LS       0       68
  212          UD   0.297

  213          KK  DP315
  214          KM  Combine RT311 SC313 and SC315
  215          KO                                                    22
  216          HC       3

  217          KK  DP316
  218          KM  Combine RT220 and DP315
  219          KO                                                    22
  220          HC       2

  221          KK  RES316
  222          KM  REGIONAL RES 316
  223          KO                                                    22
  224          RS       1     STOR      -1
  225          SV       0     0.72    2.42    4.57    7.19   10.29
  226          SE    7164     7166    7168    7170    7172    7174
  227          SQ       0       10      75      90     360    1225
  228          SE    7164     7166    7168    7170    7172    7174
```

HEC-1 INPUT

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

  229          KK  RT316
  230          KM  Smith Creek Route 316 to 401
  231          KO                                          22
  232          RK    2575  0.0361    0.120           TRAP        1         2

  233          KK  SC401
  234          KM  Smith Creek 401 Runoff
  235          KO                                          22
  236          BA  0.1524
  237          PB     2.6
  238          LS       0        68
  239          UD   0.377

  240          KK  DP401
  241          KM  Combine RT316 and SC401
  242          KO                                          22
  243          HC       2

  244          KK  RT401
  245          KM  Smith Creek Route 401 to 405
  246          KO                                          22
  247          RK     660  0.0548    0.120           TRAP        1         2

  248          KK  SC403
  249          KM  Smith Creek 403 Runoff
  250          KO                                          22
  251          BA  0.1007
  252          PB     2.6
  253          LS       0        68
  254          UD   0.332

  255          KK  SC405
  256          KM  Smith Creek 405 Runoff
  257          KO                                          22
  258          BA  0.0677
  259          PB     2.6
  260          LS       0        68
  261          UD   0.263

  262          KK  DP405
  263          KM  Combine RT401 SC403 and SC405
  264          KO                                          22
  265          HC       3

  266          KK  RT405
  267          KM  Smith Creek Route 405 to 407
  268          KO                                          22
  269          RK    1500  0.0210    0.120           TRAP        1         2
```

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

270          KK  SC101
271          KM  Smith Creek 101 Runoff
272          KO                                                    22
273          BA  0.0920
274          PB     2.6
275          LS       0       64
276          UD   0.353

277          KK  RT101
278          KM  Tributary Route 101 to 103
279          KO                                                    22
280          RK    2050  0.0424   0.055                TRAP                  2

281          KK  SC103
282          KM  Smith Creek 103 Runoff
283          KO                                                    22
284          BA  0.1670
285          PB     2.6
286          LS       0       65
287          UD   0.348

288          KK  SC105A
289          KM  Smith Creek 105A Runoff
290          KO                                                    22
291          BA  0.0693
292          PB     2.6
293          LS       0       70
294          UD   0.345

295          KK  DP103
296          KM  Combine RT101 SC105A and SC103
297          KO                                                    22
298          HC       3

299          KK  RES106
300          KM  Exisitng Detention Pond 106
301          KO                                                    22
302          RS       1     STOR       -1
303          SA    0.43     0.54     0.65     0.80     0.94     1.00
304          SE    7320     7322     7324     7326     7328     7330
305          SQ       0       50       80      100      190      250
306          SE    7320     7322     7324     7326     7328     7330

307          KK  RT103
308          KM  Tributary Route RES103 to 105
309          KO                                                    22
310          RK    1150  0.0478   0.055                TRAP                  2

311          KK  SC105B
312          KM  Smith Creek 105B Runoff
313          KO                                                    22
314          BA  0.0686
315          PB     2.6
316          LS       0       69
```

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

317          UD   0.345

318          KK  DP105
319          KM  Combine RT103 and SC105B
320          KO                                                    22
321          HC       2

322          KK  RT105A
323          KM  Tributary Route 105 to 107A
324          KO                                                    22
325          RK    1000  0.0395  0.0727                    TRAP              2

326          KK  SC107A
327          KM  Smith Creek 107A Runoff
328          KO                                                    22
329          BA  0.1367
330          PB     2.6
331          LS       0       69
332          UD   0.273

333          KK  RES108
334          KM  EXISTING DETENTION POND 108
335          KO                                                    22
336          RS       1     STOR       -1
337          SV     0.0     0.20     0.68     1.35     2.32
338          SE    7340     7342     7344     7346     7348
339          SQ       0       20       48      220      822
340          SE    7340     7342     7344     7346     7348

341          KK  DP107A
342          KM  Combine RT105A and RES108
343          KO                                                    22
344          HC       2

345          KK  RT105B
346          KM  TRIBUTARY ROUTE 107A TO 107B
347          KO                                                    22
348          RK    1000  0.0395  0.0727                    TRAP              2

349          KK  SC107B
350          KM  SMITH CREEK 107B RUNOFF
351          KO                                                    22
352          BA  0.0408
353          PB     2.6
354          LS       0       68
355          UB   0.273

356          KK  DP107B
357          KM  COMBINE RT105B AND SC107B
358          KO                                                    22
359          HC       2
```

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

  360          KK  RT107
  361          KM  Tributary Route 107B to 109
  362          KO                                          22
  363          RK    1420  0 0359   0. 120          TRAP                2

  364          KK  SC109
  365          KM  Smith Creek 109 Runoff
  366          KO                                          22
  367          BA  0. 1637
  368          PB     2. 6
  369          LS        0       69
  370          UD   0 350

  371          KK  DP109
  372          KM  Combine RT107 and SC109
  373          KO                                          22
  374          HC        2

  375          KK  RT109
  376          KM  Tributary Route 109 to 111
  377          KO                                          22
  378          RK    3840  0. 0453   0. 120          TRAP                2

  379          KK  SC111
  380          KM  Smith Creek 111 Runoff
  381          KO                                          22
  382          BA  0. 1894
  383          PB     2. 6
  384          LS        0       69
  385          UD   0. 382

  386          KK  DP111
  387          KM  Combine RT109 and SC111
  388          KO                                          22
  389          HC        2

  390          KK  SC407
  391          KM  Smith Creek 407 Runoff
  392          KO                                          22
  393          BA  0. 1685
  394          PB     2. 6
  395          LS        0       68
  396          UD   0. 423

  397          KK  DP407
  398          KM  Combine DP111 RT405 and SC407
  399          KO                                          22
  400          HC        3
```

```
         LINE
ID.......1....2.....3....4.....5.....6.....7..    .8...   .9.   .10
  401            KK  RT407A
  402            KM  SMITH CREEK ROUTE 407 TO RES407
  403            KO                                      22
  404            RK      665  0.0210    0.120            TRAP       1       2

  405            KK  RES407
  406            KM  REGIONAL POND RES 407
  407            KO                                      22
  408            RS        1     STOR      -1
  409            SV        0      .44     1.49     2.93     4.75     6.91     9.41    12.27    15.50
  410            SE     6990     6992     6994     6996     6998     7000     7002     7004     7006
  411            SQ        0       10       25       50       75      450      800     1000     1900
  412            SE     6990     6992     6994     6996     6998     7000     7002     7004     7006

  413            KK  RT407B
  414            KM  ROUTE RES 407 TO DP 506
  415            KO                                      22
  416            RK      340  0.0210    0.120            TRAP       1       2

  417            KK  SC501
  418            KM  Smith Creek 501 Runoff
  419            KO                                      22
  420            BA  0.1219
  421            PB     2.6
  422            LS       0       68
  423            UD   0.312

  424            KK  SC503
  425            KM  Smith Creek 503 Runoff
  426            KO                                      22
  427            BA  0.1193
  428            PB     2.6
  429            LS       0       68
  430            UD   0.334

  431            KK  SC505
  432            KM  Smith Creek 505 Runoff
  433            KO                                      22
  434            BA  0.1923
  435            PB     2.6
  436            LS       0       68
  437            UD   0.379

  438            KK  DP505
  439            KM  Combine SC501 SC503 and SC505
  440            KO                                      22
  441            HC       3

  442            KK  DP506
  443            KM  Combine RT407 and DP505
  444            KO                                      22
  445            HC       2
```

HEC-1 INPUT

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

446         KK  RT506
447         KM  Smith Creek Route 506 to 507
448         KO                                          22
449         RK     750  0.0067  0 0978          TRAP        2         1

450         KK  SC507
451         KM  Smith Creek 507 Runoff
452         KO                                          22
453         BA  0 0958
454         PB     2.6
455         LS       0       68
456         UD   0.229

457         KK  DP507
458         KM  Combine RT506 and SC507
459         KO                                          22
460         HC       2

461         KK  RT507
462         KM  Smith Creek Route 507 to 509
463         KO                                          22
464         RK    2010  0.0268  0.0978          TRAP        2         1

465         KK  SC509
466         KM  Smith Creek 509 Runoff
467         KO                                          22
468         BA  0.1514
469         PB     2.6
470         LS       0       68
471         UD   0.405

472         KK  DP509
473         KM  Combine RT507 and SC509
474         KO                                          22
475         HC       2

476         KK  RT509
477         KM  Smith Creek Route 509 to 511
478         KO                                          22
479         RK    2650  0.0160  0.0978          TRAP        2         1

480         KK  SC511
481         KM  Smith Creek 511 Runoff
482         KO                                          22
483         BA  0.0907
484         PB     2.6
485         LS       0       68
486         UD   0.305
```

HEC-1 INPUT

```
ID.....LINE 1.....2.....3.....4.....5.....6.....7.....8.....9.....10
  487          KK  DP511
  488          KM  Combine RT509 and SC511
  489          KO                                              22
  490          HC       2

  491          KK  RT511
  492          KM  Smith Creek Route 511 to 603
  493          KO                                              22
  494          RK     670  0.0373  0.0978            TRAP       2         1

  495          KK  SC601
  496          KM  Smith Creek 601 Runoff
  497          KO                                              22
  498          BA  0.0633
  499          PB     2.6
  500          LS       0       69
  501          UD   0.210

  502          KK  RT601
  503          KM  Tributary Route 601 to 603
  504          KO                                              22
  505          RK    1170  0.0359   0.090            TRAP                 2

  506          KK  SC603
  507          KM  Smith Creek 603 Runoff
  508          KO                                              22
  509          BA  0.2514
  510          PB     2.6
  511          LS       0       68
  512          UD   0.289

  513          KK  DP603
  514          KM  Combine RT601 and SC603
  515          KO                                              22
  516          HC       2

  517          KK  DP604
  518          KM  Combine RT511 and DP603
  519          KO                                              22
  520          HC       2

  521          KK  RT604
  522          KM  Smith Creek Route 604 to 609
  523          KO                                              22
  524          RK    1380  0.0236  0.0928            TRAP       2         1

  525          KK  SC607
  526          KM  Smith Creek 607 Runoff
  527          KO                                              22
  528          BA  0.0840
  529          PB     2.6
  530          LS       0       69
  531          UD   0.270
```

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

          532          KK  SC609
          533          KM  Smith Creek 609 Runoff
          534          KO                                      22
          535          BA  0.1389
          536          PB     2.6
          537          LS       0       69
          538          UD   0.326

          539          KK  DP609
          540          KM  Combine RT604 SC607 and SC609
          541          KO                                      22
          542          HC       3

          543          KK  RES610
          544          KM  Smith Creek Reservoir Route 610
          545          KO                                      22
          546          RS       1     STOR      -1
          547          SA     2.2      2.7      3.3      3.8      4.4      5.1      5.8
          548          SE    6822     6823     6824     6825     6826     6827     6828
          549          SQ       0       11      701     2361     4843    10331    16010
          550          SE    6822     6823     6824     6825     6826     6827     6828

          551          KK  SC605A
          552          KM  Smith Creek 605A Runoff
          553          KO                                      22
          554          BA  0.0505
          555          PB     2.6
          556          LS       0       68
          557          UD   0.252

          558          KK  RT605
          559          KM  SMITH CREEK ROUTE 605 TO DP610
          560          KO                                      22
          561          RK    2000     0.03    0.013             TRAP        2        2

          562          KK  SC605B
          563          KM  SMITH CREEK 605B RUNOFF
          564          KO                                      22
          565          BA  0.0778
          566          PB     2.6
          567          LS       0       75
          568          UD   0.252

          569          KK  RES605
          570          KM  FUTURE POND 605
          571          KO                                      22
          572          RS       1     STOR      -1
          573          SV       0    0.099    0.218     0.36    0.526    0.718    0.937    1.185    1.463
1.773
          574          SV   2.117    2.496    2.912
          575          SE    6818     6819     6820     6821     6822     6823     6824     6825     6826
6827
          576          SE    6828     6829     6830
          577          SQ       0     5.18    19.37    40.40    65.78    92.88   119.23   143.30   162.05
176.76
          578          SQ  190.33   202.99   214.91
          579          SE    6818     6819     6820     6821     6822     6823     6824     6825     6826
6827
```

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

          580          SE    6828    6829    6830

          581          KK  DP610
          582          KM  COMBINE RES 610 RES 605 AND RT605
          583          KO                                      22
          584          HC       3

          585          KK  RT610
          586          KM  Smith Creek Route 610 to 611
          587          KO                                      22
          588          RK    3200  0.0226   0.090             TRAP        2         1

          589          KK  SC611
          590          KM  Smith Creek 611 Runoff
          591          KO                                      22
          592          BA  0.1095
          593          PB     2.6
          594          LS       0       69
          595          UD   0.149

          596          KK  DP611
          597          KM  Combine RT610 and SC611
          598          KO                                      22
          599          HC       2

          600          KK  RES612
          601          KM  Smith Creek Reservoir Route 612
          602          KO                                      22
          603          RS       1    STOR      -1
          604          SA    1.82    2.77    3.72     4.5    5.28    5.78
          605          SE    6762    6763    6764    6765    6766  6766.5
          606          SQ       0     150     510    1160    2120    2680
          607          SE    6762    6763    6764    6765    6766  6766.5

          608          KK  RT612
          609          KM  Smith Creek Route 612 to 617
          610          KO                                      22
          611          RK    2250  0.0240  0.0866             TRAP        2         1

          612          KK  SC613
          613          KM  Smith Creek 613 Runoff
          614          KO                                      22
          615          BA  0.1233
          616          PB     2.6
          617          LS       0       75
          618          UD   0.270

          619          KK  RES613
          620          KM  EXISTING POND 613
          621          KO                                      22
          622          RS       1    STOR      -1
          623          SA    0.12    0.96    1.09    1.21    1.34    1.47
          624          SE    6794    6796    6798    6800    6802    6804
          625          SQ    4.67    7.44    9.43   22.99   29.35   34.42
          626          SE    6794    6796    6798    6800    6802    6804
```

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

627          KK  RT618
628          KM  SMITH CREEK ROUTE RES613 TO DP  618
629          KO                                          22
630          RK    1100    0 030    0.013             TRAP        2        2

631          KK  SC617A
632          KM
633          KO                                          22
634          BA  0.0149
635          PB     2.6
636          LS       0       73
637          UD   0.162

638          KK  RES617
639          KM  FUTURE POND 617
640          KO                                          22
641          RS       1    STOR      -1
642          SV    6740    6745    6748    6750
643          SE       0     0.5     1.0     1.5
644          SQ       0      30      40      63
645          SE    6740    6745    6748    6750

646          KK  SC618
647          KM  SMITH CREEK 618 RUNOFF
648          KO                                          22
649          BA   0.007
650          PB     2.6
651          LS       0       73
652          UD    0.15

653          KK  RES618
654          KM  FUTURE POND 618
655          KO                                          22
656          RS       1    STOR      -1
657          SV       0     0.5     1.0
658          SE    6768    6770    6772
659          SQ       0       3       6
660          SE    6768    6770    6772

661          KK  DP618
662          KM  COMBINE RES 613 RES 618 AND RT618
663          KO                                          22
664          HC       3

665          KK  SC615B
666          KM  Smith Creek 615B Runoff
667          KO                                          22
668          BA  0.0313
669          PB     2.6
670          LS       0       78
671          UD   0.160
```

HEC-1 INPUT

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ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
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```
672          KK  RES614
673          KM  EXISTING POND 614
674          KO                                              22
675          RS       1     STOR      -1
676          SV       0    0.067     0.32     0.67     1.16      1.5
677          SE    6722     6724     6726     6728     6730     6732
678          SQ       0        4        6       10     13.3       20
679          SE    6722     6724     6726     6728     6730     6732

680          KK  SC615A
681          KM  SMITH CREEK 615A
682          KO                                              22
683          BA  0.0567
684          PB     2.6
685          LS       0       74
686          UD    0.18

687          KK  RES615
688          KM  SMITH CREEK RESEVOIR ROUTE 615
689          KO                                              22
690          RS       1     STOR      -1
691          SV       0        1        2      2.5
692          SE    6726     6728     6730     6732
693          SQ       0        5       10     16.7
694          SE    6724     6726     6728     6729

695          KK  SC617C
696          KM  SMITH CREEK 617C Runoff
697          KO                                              22
698          BA   .0482
699          PB     2.6
700          LS       0       65
701          UD     .17

702          KK  DP613
703          KM  COMBINE DP 618 RES 615 RES 614 SC 617C AND RT 612
704          KO                                              22
705          HC       5

706          KK  RT614
707          KM  SMITH CREEK ROUTE 613 TO 617
708          KO                                              22
709          RK    1200    0.022    0.030             TRAP       2        4

710          KK  SC617B
711          KM  Smith Creek 617B Runoff
712          KO                                              22
713          BA  0.0215
714          PB     2.6
715          LS       0       69
716          UD   0.228
```

HEC-1 INPUT

```
ID.....LINE 1.....2.....3.....4.....5.....6.....7.....8.....9.....10
  717          KK  DP617
  718          KM  Combine RT614 AND SC617B
  719          KO                                                22
  720          HC       2

  721          KK  RT617
  722          KM  Smith Creek Route 617 to 703
  723          KO                                                22
  724          RK    1470  0.0061   0.085                TRAP       2        1

  725          KK  SC701
  726          KM  Smith Creek 701 Runoff
  727          KO                                                22
  728          BA  0.0722
  729          PB     2.6
  730          LS       0       92
  731          UD   0.360

  732          KK  SC703
  733          KM  Smith Creek 703 Runoff
  734          KO                                                22
  735          BA  0.1305
  736          PB     2.6
  737          LS       0       77
  738          UD   0.092

  739          KK  DP703
  740          KM  Combine RT617 SC701 and SC703
  741          KO                                                22
  742          HC       3

  743          KK  RT703
  744          KM  Smith Creek Route 703 to 705
  745          KO                                                22
  746          RK    2780  0.0338  0.0786                TRAP       3        1

  747          KK  SC705
  748          KM  Smith Creek 705 Runoff
  749          KO                                                22
  750          BA  0.0869
  751          PB     2.6
  752          LS       0       69
  753          UD   0.329

  754          KK  DP705
  755          KM  Combine RT703 and SC705
  756          KO                                                22
  757          HC       2
  758          ZZ
```

HEC1 S/N 1343001909 HMVersion 6.33 Data File: C:\WINNT\TEMP\~vbh2F68.TMP

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

MAXIMUM STAGE	TIME OF OPERATION MAX STAGE	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA
	HYDROGRAPH AT	SC205	16.	6.00	3.	1.	0.	0.10
	ROUTED TO	RT205	15.	6.00	3.	1.	0.	0.10
	HYDROGRAPH AT	SC207	17.	6.00	4.	1.	0.	0.12
	HYDROGRAPH AT	SC213	16.	6.00	4	1.	0.	0.12
	3 COMBINED AT	DP213	49.	6.00	11.	4.	1.	0.34
	ROUTED TO	RT213	46.	6.00	11.	4.	1.	0.34
	HYDROGRAPH AT	SC209	10	6.00	3.	1.	0.	0.14
	HYDROGRAPH AT	SC211	4.	6.25	1.	1.	0.	0.08
	HYDROGRAPH AT	SC215	9.	6.00	2.	1.	0.	0.06
	4 COMBINED AT	DP215	69.	6.00	16.	6.	2.	0.62
	ROUTED TO	RT215	61.	6.00	16.	6.	2.	0.62
	HYDROGRAPH AT	SC219	8.	6.00	2.	1.	0.	0.13
	2 COMBINED AT	DP219	69.	6.00	19.	7.	2.	0.75
	HYDROGRAPH AT	SC201	9.	6.00	2.	1.	0.	0.12
	ROUTED TO	RT201	8.	6.00	2.	1.	0.	0.12
	HYDROGRAPH AT	SC203	6.	6.00	2.	1.	0.	0.11
	2 COMBINED AT	DP203	14.	6.00	4	2.	1.	0.23
	ROUTED TO	RT203	12.	6.25	4.	2	1.	0.23
	HYDROGRAPH AT	SC217	4	6.00	1	0.	0.	0.05
	2 COMBINED AT	DP217	16	6.00	5.	2.	1.	0.29
	2 COMBINED AT	DP220	84.	6.00	23.	9.	3.	1.03
	ROUTED TO	RT220	81	6.25	23.	9.	3.	1.03
	HYDROGRAPH AT	SC301	20	6.00	4.	1.	0.	0.12

	HYDROGRAPH AT	SC303	21.	6.00	4.	2.	1.	0.13
	2 COMBINED AT	DP303	40.	6.00	8.	3.	1.	0.25
	ROUTED TO	RT303	39.	6.00	8	3.	1.	0.25
	HYDROGRAPH AT	SC305	10.	6.00	2.	1.	0	0.06
	2 COMBINED AT	DP305	49.	6.00	10.	4.	1.	0.31
	ROUTED TO	RT305	45.	6.00	10.	4	1.	0.31
	HYDROGRAPH AT	SC307	13.	6.25	3.	1.	0.	0.11
	HYDROGRAPH AT	SC309	18.	6.00	4.	1.	0.	0.12
	HYDROGRAPH AT	SC311	17.	6.00	3.	1.	0.	0.11
	4 COMBINED AT	DP311	93.	6.00	21.	8.	3.	0.65
	ROUTED TO	RT311	80.	6.25	21.	8.	3.	0.65
	HYDROGRAPH AT	SC313	20.	6.00	4.	2.	1.	0.15
	HYDROGRAPH AT	SC315	14.	6.00	3.	1.	0.	0.09
	3 COMBINED AT	DP315	112.	6.00	28.	10.	3.	0.89
	2 COMBINED AT	DP316	192.	6.00	51.	19.	6.	1.92
	ROUTED TO	RES316	163.	6.50	50.	19.	6.	1.92
7170.54	6.50							
	ROUTED TO	RT316	137.	6.50	50.	19.	6.	1.92
	HYDROGRAPH AT	SC401	22.	6.00	5.	2.	1.	0.15
	2 COMBINED AT	DP401	148.	6.50	54	21.	7.	2.08
	ROUTED TO	RT401	145.	6.50	54.	21.	7.	2.08
	HYDROGRAPH AT	SC403	16.	6.00	3	1.	0.	0.10
	HYDROGRAPH AT	SC405	11.	6.00	2	1.	0.	0.07
	3 COMBINED AT	DP405	156.	6.50	59.	23	8.	2.25
	ROUTED TO	RT405	152.	6.75	59.	23.	8	2.25
	HYDROGRAPH AT	SC101	8.	6.00	2	1.	0.	0.09
	ROUTED TO	RT101	7	6.25	2.	1.	0.	0.09

	HYDROGRAPH AT						
		SC103	17	6.00	4.	2.	1	0 17
	HYDROGRAPH AT						
		SC105A	13	6 00	3.	1	0.	0 07
	3 COMBINED AT						
		DP103	36	6 00	9	3.	1	0 33
	ROUTED TO						
		RES106	29	6 25	8.	3	1.	0 33
7321 16	6 25						
	ROUTED TO						
		RT103	28	6 25	8.	3.	1.	0. 33
	HYDROGRAPH AT						
		SC105B	12	6 00	2.	1.	0.	0. 07
	2 COMBINED AT						
		DP105	36.	6. 25	11.	4.	1.	0. 40
	ROUTED TO						
		RT105A	35.	6. 25	11	4.	1.	0. 40
	HYDROGRAPH AT						
		SC107A	25	6 00	5.	2.	1.	0. 14
	ROUTED TO						
		RES108	22.	6. 00	5.	2.	1	0. 14
7342. 11	6. 00						
	2 COMBINED AT						
		DP107A	56.	6 25	16.	6.	2.	0. 53
	ROUTED TO						
		RT105B	55.	6. 25	16.	6.	2.	0. 53
	HYDROGRAPH AT						
		SC107B	7.	6. 00	1.	0.	0.	0. 04
	2 COMBINED AT						
		DP107B	59.	6. 25	17.	6.	2.	0. 57
	ROUTED TO						
		RT107	57	6. 25	17.	6.	2.	0. 57
	HYDROGRAPH AT						
		SC109	28.	6. 00	6.	2.	1.	0. 16
	2 COMBINED AT						
		DP109	77.	6. 25	23.	8.	3.	0. 74
	ROUTED TO						
		RT109	73.	6. 25	22.	8.	3.	0. 74
	HYDROGRAPH AT						
		SC111	30	6. 00	7.	2.	1.	0 19
	2 COMBINED AT						
		DP111	98	6. 25	29.	11.	4.	0 93
	HYDROGRAPH AT						
		SC407	22	6. 00	5.	2	1.	0 17
	3 COMBINED AT						
		DP407	248.	6 50	93	36.	12.	3 34
	ROUTED TO						
		RT407A	245	6 50	93.	36.	12.	3 34
	ROUTED TO						
		RES407	243	6. 50	90.	36	12.	3 34
6998 90	6. 50						
	ROUTED TO						

	RT407B	239.	6. 75	90.	36.	12	3. 34
HYDROGRAPH AT	SC501	20.	6. 00	4	1.	0.	0. 12
HYDROGPAPH AT	SC503	19	6 00	4.	1	0	0. 12
HYDROGRAPH AT	SC505	27.	6. 00	6	2.	1	0. 19
3 COMBINED AT	DP505	65.	6. 00	14.	5.	2.	0. 43
2 COMBINED AT	DP506	265.	6. 50	103.	41.	14.	3. 77
ROUTED TO	RT506	261.	6. 75	103.	41.	14.	3. 77
HYDROGRAPH AT	SC507	15.	6. 00	3.	1.	0.	0. 10
2 COMBINED AT	DP507	265.	6. 75	106.	42.	14.	3. 87
ROUTED TO	RT507	261.	6. 75	105.	42.	14.	3. 87
HYDROGRAPH AT	SC509	20.	6. 00	5.	2.	1.	0. 15
2 COMBINED AT	DP509	270.	6. 75	110.	44.	15.	4. 02
ROUTED TO	RT509	255.	6. 75	110.	44.	15.	4. 02
HYDROGRAPH AT	SC511	15.	6. 00	3.	1.	0.	0. 09
2 COMBINED AT	DP511	260.	6. 75	112.	45	15.	4. 11
ROUTED TO	RT511	258.	7. 00	112.	45.	15.	4. 11
HYDROGRAPH AT	SC601	12.	5. 75	2.	1.	0.	0. 06
ROUTED TO	RT601	11	6. 00	2.	1.	0.	0. 06
HYDROGRAPH AT	SC603	41	6. 00	8.	3.	1.	0. 25
2 COMBINED AT	DP603	52.	6. 00	10.	4.	1	0. 31
2 COMBINED AT	DP604	270.	6. 75	121.	48.	16.	4. 43
ROUTED TO	RT604	270	7. 00	121.	48.	16.	4. 43
HYDROGRAPH AT	SC607	16.	6. 00	3.	1.	0.	0. 08
HYDROGRAPH AT	SC609	25.	6. 00	5.	2.	1.	0. 14
3 COMBINED AT	DP609	278	7. 00	129.	51.	17.	4. 65
ROUTED TO	RES610	278	7. 00	126.	51	17.	4. 65
6823. 39	7 00						
HYDROGRAPH AT							

		SC605A	8	6 00	2	1	0.	0 05
	ROUTED TO							
		RT605	8.	6. 00	2	1.	0.	0 05
	HYDROGRAPH AT							
		SC605B	25	6 00	4.	1.	0.	0. 08
	ROUTED TO							
		RES605	25	6. 00	4.	1	0.	0. 08
6820. 29	6. 00							
	3 COMBINED AT							
		DP610	284.	7. 00	131.	53.	18.	4. 78
	ROUTED TO							
		RT610	281.	7. 00	131.	53.	18.	4. 78
	HYDROGRAPH AT							
		SC611	29.	5 75	4.	1.	0.	0. 11
	2 COMBINED AT							
		DP611	284.	7. 00	133.	54.	18.	4. 89
	ROUTED TO							
		RES612	279.	7. 25	132.	54.	18.	4. 89
6763. 36	7. 25							
	ROUTED TO							
		RT612	277.	7. 25	132.	54	18.	4. 89
	HYDROGRAPH AT							
		SC613	40.	6. 00	7.	2.	1.	0. 12
	ROUTED TO							
		RES613	8.	6. 75	7.	5.	5.	0. 12
6796. 59	6. 75							
	ROUTED TO							
		RT618	8	6. 75	7.	5.	5.	0. 12
	HYDROGRAPH AT							
		SC617A	6.	5. 75	1.	0.	0.	0. 01
	ROUTED TO							
		RES617	0.	0. 25	0.	0.	0.	0. 01
1. 62	24. 00							
	HYDROGRAPH AT							
		SC618	3.	5. 75	0.	0.	0.	0. 01
	ROUTED TO							
		RES618	0.	6. 50	0.	0.	0.	0. 01
6768. 33	6. 50							
	3 COMBINED AT							
		DP618	9.	6. 75	7.	5.	5.	0. 15
	HYDROGRAPH AT							
		SC615B	18.	5 75	2.	1.	0.	0. 03
	ROUTED TO							
		RES614	6.	6 25	2.	1.	0.	0. 03
6726. 20	6 25							
	HYDROGRAPH AT							
		SC615A	21	5 75	3.	1.	0.	0. 06
	ROUTED TO							
		RES615	7	6 25	3.	1.	0.	0. 06
6726 92	6. 25							
	HYDROGRAPH AT							

	SC617C	7.	5 75	1.	0.	0.	0. 05
5 COMBINED AT	DP613	296.	7. 25	144.	62.	24.	5. 17
ROUTED TO	RT614	296.	7 25	144.	62.	24.	5 17
HYDROGRAPH AT	SC617B	4.	6 00	1	0.	0.	0. 02
2 COMBINED AT	DP617	296	7 25	145.	62.	24.	5. 19
ROUTED TO	RT617	292.	7. 25	144.	62	24	5. 19
HYDROGRAPH AT	SC701	68.	6. 00	12.	3.	1	0. 07
HYDROGRAPH AT	SC703	79.	5. 75	9.	3.	1.	0. 13
3 COMBINED AT	DP703	304.	7. 25	160.	68.	26.	5. 39
ROUTED TO	RT703	300.	7. 25	159.	68.	26.	5. 39
HYDROGRAPH AT	SC705	15.	6. 00	3.	1.	0.	0. 09
2 COMBINED AT	DP705	303.	7. 25	162.	69.	26.	5. 48

SUMMARY OF KINEMATIC WAVE - MUSKINGUM-CUNGE ROUTING
(FLOW IS DIRECT RUNOFF WITHOUT BASE FLOW)

ISTAQ	ELEMENT	DT	PEAK	TIME TO PEAK	VOLUME	INTERPOLATED TO COMPUTATION INTERVAL DT	PEAK	TIME TO PEAK	VOLUME
		(MIN)	(CFS)	(MIN)	(IN)	(MIN)	(CFS)	(MIN)	(IN)
RT205	MANE	1.58	15.94	363.22	0.43	15.00	15.28	360.00	0.44

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.2237E+01 EXCESS=0.0000E+00 OUTFLOW=0.2239E+01 BASIN STORAGE=
0.5963E-09 PERCENT ERROR= -0.1

RT213	MANE	1.10	48.48	362.39	0.42	15.00	45.64	360.00	0.42

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.7664E+01 EXCESS=0.0000E+00 OUTFLOW=0.7665E+01 BASIN STORAGE=
0.2831E-08 PERCENT ERROR= 0.0

RT215	MANE	1.98	68.73	363.84	0.37	15.00	61.09	360.00	0.37

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1213E+02 EXCESS=0.0000E+00 OUTFLOW=0.1213E+02 BASIN STORAGE=
0.2367E-07 PERCENT ERROR= 0.0

RT201	MANE	1.85	8.79	363.18	0.28	15.00	7.81	360.00	0.28

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1805E+01 EXCESS=0.0000E+00 OUTFLOW=0.1805E+01 BASIN STORAGE=
0.9118E-09 PERCENT ERROR= 0.0

RT203	MANE	2.37	13.79	364.89	0.25	15.00	12.24	375.00	0.25

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.3155E+01 EXCESS=0.0000E+00 OUTFLOW=0.3154E+01 BASIN STORAGE=
0.9072E-08 PERCENT ERROR= 0.0

RT220	MANE	0.71	84.07	362.04	0.32	15.00	80.73	375.00	0.32

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1782E+02 EXCESS=0.0000E+00 OUTFLOW=0.1782E+02 BASIN STORAGE=
0.1939E-07 PERCENT ERROR= 0.0

RT303	MANE	0.98	40.07	361.84	0.43	15.00	38.91	360.00	0.43

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.5755E+01 EXCESS=0.0000E+00 OUTFLOW=0.5755E+01 BASIN STORAGE=
0.1739E-09 PERCENT ERROR= 0.0

RT305	MANE	1.68	48.55	362.76	0.43	15.00	45.05	360.00	0.44

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.7228E+01 EXCESS=0.0000E+00 OUTFLOW=0.7229E+01 BASIN STORAGE=
0.4596E-08 PERCENT ERROR= 0.0

RT311	MANE	2.65	91.22	364.83	0.43	15.00	80.39	375.00	0.43

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1508E+02 EXCESS=0.0000E+00 OUTFLOW=0.1508E+02 BASIN STORAGE=
0.5653E-07 PERCENT ERROR= 0.0

RT316	MANE	2.84	160.36	396.33	0.37	15.00	136.51	390.00
0.37								

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.3820E+02 EXCESS=0.0000E+00 OUTFLOW=0.3819E+02 BASIN STORAGE=
0.4543E-06 PERCENT ERROR= 0.0

RT401	MANE	0.72	147.99	391.55	0.38	15.00	144.52	390.00
0.38								

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.4166E+02 EXCESS=0.0000E+00 OUTFLOW=0.4166E+02 BASIN STORAGE=
0.1909E-06 PERCENT ERROR= 0.0

RT405	MANE	2.16	155.45	394.72	0.38	15.00	151.67	405.00
0.38								

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.4559E+02 EXCESS=0.0000E+00 OUTFLOW=0.4558E+02 BASIN STORAGE=
0.9431E-06 PERCENT ERROR= 0.0

RT101	MANE	2.50	7.74	365.60	0.31	15.00	6.83	375.00
0.31								

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1504E+01 EXCESS=0.0000E+00 OUTFLOW=0.1503E+01 BASIN STORAGE=
0.2943E-08 PERCENT ERROR= 0.1

RT103	MANE	1.12	28.94	377.29	0.36	15.00	27.87	375.00
0.36								

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.6355E+01 EXCESS=0.0000E+00 OUTFLOW=0.6355E+01 BASIN STORAGE=
0.4218E-08 PERCENT ERROR= 0.0

RT105A	MANE	1.11	36.21	377.59	0.38	15.00	35.45	375.00
0.38								

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.8078E+01 EXCESS=0.0000E+00 OUTFLOW=0.8078E+01 BASIN STORAGE=
0.9359E-08 PERCENT ERROR= 0.0

RT105B	MANE	1.02	55.49	376.90	0.40	15.00	54.73	375.00
0.41								

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1150E+02 EXCESS=0.0000E+00 OUTFLOW=0.1151E+02 BASIN STORAGE=
0.1587E-07 PERCENT ERROR= 0.0

RT107	MANE	2.13	58.20	378.60	0.41	15.00	56.63	375.00
0.41								

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1247E+02 EXCESS=0.0000E+00 OUTFLOW=0.1247E+02 BASIN STORAGE=
0.7761E-07 PERCENT ERROR= 0.0

RT109	MANE	4.78	76.36	383.20	0.42	15.00	72.58	375.00
0.42								

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1657E+02 EXCESS=0.0000E+00 OUTFLOW=0.1655E+02 BASIN STORAGE=
0.7140E-06 PERCENT ERROR= 0.1

RT407A	MANE	0.95	247.09	392.11	0.40	15.00	245.22	390.00
0.40								

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.7072E+02 EXCESS=0.0000E+00 OUTFLOW=0.7072E+02 BASIN STORAGE=
0.7185E-06 PERCENT ERROR= 0.0

RT407B MANE 0.48 242.91 390.98 0.40 15.00 238.68 405.00
0.40

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.7081E+02 EXCESS=0.0000E+00 OUTFLOW=0.7081E+02 BASIN STORAGE=
0.4386E-06 PERCENT ERROR= 0.0

RT506 MANE 1.15 264.63 392.52 0.40 15.00 261.42 405.00
0.40

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.8085E+02 EXCESS=0.0000E+00 OUTFLOW=0.8085E+02 BASIN STORAGE=
0.1687E-05 PERCENT ERROR= 0.0

RT507 MANE 1.69 264.43 407.66 0.40 15.00 261.42 405.00
0.40

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.8317E+02 EXCESS=0.0000E+00 OUTFLOW=0.8317E+02 BASIN STORAGE=
0.3844E-05 PERCENT ERROR= 0.0

RT509 MANE 2.80 267.31 412.14 0.40 15.00 255.35 405.00
0.40

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.8672E+02 EXCESS=0.0000E+00 OUTFLOW=0.8669E+02 BASIN STORAGE=
0.1058E-04 PERCENT ERROR= 0.0

RT511 MANE 0.57 259.57 406.23 0.40 15.00 258.49 420.00
0.40

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.8875E+02 EXCESS=0.0000E+00 OUTFLOW=0.8875E+02 BASIN STORAGE=
0.2361E-05 PERCENT ERROR= 0.0

RT601 MANE 1.99 11.99 350.46 0.47 15.00 11.32 360.00
0.47

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1578E+01 EXCESS=0.0000E+00 OUTFLOW=0.1577E+01 BASIN STORAGE=
0.1410E-08 PERCENT ERROR= 0.0

RT604 MANE 1.29 269.61 407.78 0.41 15.00 269.52 420.00
0.41

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.9619E+02 EXCESS=0.0000E+00 OUTFLOW=0.9619E+02 BASIN STORAGE=
0.6550E-05 PERCENT ERROR= 0.0

RT605 MANE 1.02 8.24 361.40 0.43 15.00 8.11 360.00
0.43

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1164E+01 EXCESS=0.0000E+00 OUTFLOW=0.1165E+01 BASIN STORAGE=
0.1430E-09 PERCENT ERROR= 0.0

RT610 MANE 2.72 283.49 425.09 0.42 15.00 281.34 420.00
0.42

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1060E+03 EXCESS=0.0000E+00 OUTFLOW=0.1059E+03 BASIN STORAGE=
0.2664E-04 PERCENT ERROR= 0.0

RT612 MANE 1.88 278.47 438.32 0.42 15.00 276.93 435.00
0.42

```
CONTINUITY SUMMARY (AC-FT) - INFLOW=0 1087E+03 EXCESS=0.0000E+00 OUTFLOW=0.1087E+03 BASIN STORAGE=
0 2740E-04 PERCENT ERROR=   0.0

            RT618   MANE          0.68      8.02     406.59      4.36      15.00      8.02     405.00
4.36

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.2870E+02 EXCESS=0.0000E+00 OUTFLOW=0 2869E+02 BASIN STORAGE=
0.9394E-02 PERCENT ERROR=   0.0

            RT614   MANE          0.57     296.32     436.03      0.51      15.00     295.52     435.00
0.51

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1419E+03 EXCESS=0.0000E+00 OUTFLOW=0.1419E+03 BASIN STORAGE=
0.7632E-02 PERCENT ERROR=   0.0

            RT617   MANE          1.95     295.09     439.65      0.51      15.00     292.48     435.00
0.51

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1424E+03 EXCESS=0.0000E+00 OUTFLOW=0.1424E+03 BASIN STORAGE=
0.6130E-01 PERCENT ERROR=   0.0

            RT703   MANE          1.83     303.66     439.11      0.54      15.00     300.03     435.00
0.54

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1549E+03 EXCESS=0.0000E+00 OUTFLOW=0.1548E+03 BASIN STORAGE=
0.7724E-01 PERCENT ERROR=   0.0



*** NORMAL END OF HEC-1 ***
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10 year future-Alternate 3
HEC1 S/N: 1343001909 HMVersion 6.33 Data File C:\WINNT\TEMP\~vbh1424.TMP

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****************************************
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*                                      *
*                                      *
*   FLOOD HYDROGRAPH PACKAGE (HEC-1)   *
U.S. ARMY CORPS OF ENGINEERS     *
*                MAY  1991           *
HYDROLOGIC ENGINEERING CENTER    *
*           VERSION 4.0.1E           *
609 SECOND STREET          *
*                                      *
DAVIS, CALIFORNIA 95616       *
*  RUN DATE  06/20/2001  TIME  12:12:31 *
(916) 756-1104             *
*                                      *
*                                      *
****************************************
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X      X  XXXXXXX   XXXXX           X
X      X  X        X     X         XX
X      X  X        X                X
XXXXXXX  XXXX     X         XXXXX   X
X      X  X        X                X
X      X  X        X     X          X
X      X  XXXXXXX   XXXXX           XXX
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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

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

          1         ID  Type IIA storm
          2         IT      15       0       0     288
          3         ID       5

          4         KK  SC205
          5         KM  Smith Creek 205 Runoff
          6         KO                                    22
          7         BA  0.0970
          8         PB       3
          9         IN      15
         10         PC  0.0005  0.0015  0.0030  0.0045  0.0060  0.0080  0.0100  0.0120  0.0143
0.0165
         11         PC  0.0188  0.0210  0.0233  0.0255  0.0278  0.0320  0.0390  0.0460  0.0530
0.0600
         12         PC  0.0750  0.1000  0.4000  0.7000  0.7250  0.7500  0.7650  0.7800  0.7900
0.8000
         13         PC  0.8100  0.8200  0.8250  0.8300  0.8350  0.8400  0.8450  0.8500  0.8550
0.8600
         14         PC  0.8638  0.8675  0.8713  0.8750  0.8788  0.8825  0.8863  0.8900  0.8938
0.8975
         15         PC  0.9013  0.9050  0.9083  0.9115  0.9148  0.9180  0.9210  0.9240  0.9270
0.9300
         16         PC  0.9325  0.9350  0.9375  0.9400  0.9425  0.9450  0.9475  0.9500  0.9525
0.9550
         17         PC  0.9575  0.9600  0.9625  0.9650  0.9675  0.9700  0.9725  0.9750  0.9775
0.9800
         18         PC  0.9813  0.9825  0.9838  0.9850  0.9863  0.9875  0.9888  0.9900  0.9913
0.9925
         19         PC  0.9938  0.9950  0.9963  0.9975  0.9988  1.0000
         20         LS       0      68
         21         UD  0.257

         22         KK  RT205
         23         KM  Smith Creek Route 205 to 213
         24         KO                                    22
         25         RK    1530  0.0431   0.055            TRAP              2

         26         KK  SC207
         27         KM  Smith Creek 207 Runoff
         28         KO                                    22
         29         BA    0.12
         30         PB       3
         31         LS       0      68
         32         UD  0.367

         33         KK  SC213
         34         KM  Smith Creek 213 Runoff
         35         KO                                    22
         36         BA  0.1243
         37         PB       3
         38         LS       0      67
         39         UD  0.361

         40         KK  DP213
         41         KM  Combine RT205 SC207 and SC213
         42         KO                                    22
         43         HC       3

         44         KK  RT213
         45         KM  Smith Creek Route 213 to 215
         46         KO                                    22
         47         RK    1360  0.0493   0.055            TRAP              2
```

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

          48          KK  SC209
          49          KM  Smith Creek 209 Runoff
          50          KO                                              22
          51          BA  0.1351
          52          PB       3
          53          LS       0       63
          54          UD   0.336

          55          KK  SC211
          56          KM  Smith Creek 211 Runoff
          57          KO                                              22
          58          BA  0.0799
          59          PB       3
          60          LS       0       62
          61          UD   0.418

          62          KK  SC215
          63          KM  Smith Creek 215 Runoff
          64          KO                                              22
          65          BA  0.0589
          66          PB       3
          67          LS       0       68
          68          UD   0.227

          69          KK  DP215
          70          KM  Combine RT213 SC209 SC211 and SC215
          71          KO                                              22
          72          HC       4

          73          KK  RT215
          74          KM  Smith Creek Route 215 to 219
          75          KO                                              22
          76          RK    2110  0.0446  0.0745            TRAP                2

          77          KK  SC219
          78          KM  Smith Creek 219 Runoff
          79          KO                                              22
          80          BA  0.1298
          81          PB       3
          82          LS       0       62
          83          UD   0.362

          84          KK  DP219
          85          KM  Combine RT215 and SC219
          86          KO                                              22
          87          HC       2

          88          KK  SC201
          89          KM  Smith Creek 201 Runoff
          90          KO                                              22
          91          BA  0.1216
          92          PB       3
          93          LS       0       63
          94          UD   0.340
```

HEC-1 INPUT

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

          95        KK  RT201
          96        KM  Tributary Route 201 to 203
          97        KO                                      22
          98        RK    1650  0.0509   0.055            TRAP              2

          99        KK  SC203
          100       KM  Smith Creek 203 Runoff
          101       KO                                      22
          102       BA  0.1113
          103       PB       3
          104       LS       0       61
          105       UD   0.223

          106       KK  DP203
          107       KM  Combine RT201 and SC203
          108       KO                                      22
          109       HC       2

          110       KK  RT203
          111       KM  Tributary Route 203 to 217
          112       KO                                      22
          113       RK    2010  0.0557  0.0698            TRAP              2

          114       KK  SC217
          115       KM  Smith Creek 217 Runoff
          116       KO                                      22
          117       BA  0.0547
          118       PB       3
          119       LS       0       62
          120       UD   0.211

          121       KK  DP217
          122       KM  Combine RT203 and SC217
          123       KO                                      22
          124       HC       2

          125       KK  DP220
          126       KM  Combine DP217 and DP219
          127       KO                                      22
          128       HC       2

          129       KK  RT220
          130       KM  Smith Creek Route 220 to 316
          131       KO                                      22
          132       RK     646  0.0313  0.0829            TRAP        1     2

          133       KK  SC301
          134       KM  Smith Creek 301 Runoff
          135       KO                                      22
          136       BA  0.1196
          137       PB       3
          138       LS       0       68
          139       UD   0.279
```

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

  140          KK  SC303
  141          KM  Smith Creek 303 Runoff
  142          KO                                                    22
  143          BA  0.1300
  144          PB        3
  145          LS        0       68
  146          UD   0.314

  147          KK  DP303
  148          KM  Combine SC301 and SC303
  149          KO                                                    22
  150          HC        2

  151          KK  RT303
  152          KM  Tributary Route 303 to 305
  153          KO                                                    22
  154          RK      940   0.0372    0.055            TRAP                  2

  155          KK  SC305
  156          KM  Smith Creek 305 Runoff
  157          KO                                                    22
  158          BA  0.0629
  159          PB        3
  160          LS        0       68
  161          UD   0.261

  162          KK  DP305
  163          KM  Combine RT303 and SC305
  164          KO                                                    22
  165          HC        2

  166          KK  RT305
  167          KM  Tributary Route 305 to 311
  168          KO                                                    22
  169          RK     2150   0.0414    0.055            TRAP                  2

  170          KK  SC307
  171          KM  Smith Creek 307 Runoff
  172          KO                                                    22
  173          BA  0.1081
  174          PB        3
  175          LS        0       68
  176          UD   0.472

  177          KK  SC309
  178          KM  Smith Creek 309 Runoff
  179          KO                                                    22
  180          BA  0.1240
  181          PB        3
  182          LS        0       68
  183          UD   0.366
```

HEC-1 INPUT

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

  184          KK  SC311
  185          KM  Smith Creek 311 Runoff
  186          KO                                          22
  187          BA  0.1064
  188          PB       3
  189          LS       0       68
  190          UD   0.234

  191          KK  DP311
  192          KM  Combine RT305 SC307 SC309 and SC311
  193          KO                                          22
  194          HC       4

  195          KK  RT311
  196          KM  Tributary Route 311 to 315
  197          KO                                          22
  198          RK    2860  0.0448  0.0888             TRAP                2

  199          KK  SC313
  200          KM  Smith Creek 313 Runoff
  201          KO                                          22
  202          BA  0.1520
  203          PB       3
  204          LS       0       67
  205          UD   0.352

  206          KK  SC315
  207          KM  Smith Creek 315 Runoff
  208          KO                                          22
  209          BA  0.0886
  210          PB       3
  211          LS       0       68
  212          UD   0.297

  213          KK  DP315
  214          KM  Combine RT311 SC313 and SC315
  215          KO                                          22
  216          HC       3

  217          KK  DP316
  218          KM  Combine RT220 and DP315
  219          KO                                          22
  220          HC       2

  221          KK  RES316
  222          KM  REGIONAL RES 316
  223          KO                                          22
  224          RS       1     STOR      -1
  225          SV       0     0.72     2.42     4.57     7.19    10.29
  226          SE    7164     7166     7168     7170     7172     7174
  227          SQ       0       10       75       90      360     1225
  228          SE    7164     7166     7168     7170     7172     7174
```

HEC-1 INPUT

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

229          KK  RT316
230          KM  Smith Creek Route 316 to 401
231          KO                                          22
232          RK    2575  0.0361   0.120          TRAP        1         2

233          KK  SC401
234          KM  Smith Creek 401 Runoff
235          KO                                          22
236          BA  0.1524
237          PB       3
238          LS       0       68
239          UD   0.377

240          KK  DP401
241          KM  Combine RT316 and SC401
242          KO                                          22
243          HC       2

244          KK  RT401
245          KM  Smith Creek Route 401 to 405
246          KO                                          22
247          RK     660  0.0548   0.120          TRAP        1         2

248          KK  SC403
249          KM  Smith Creek 403 Runoff
250          KO                                          22
251          BA  0.1007
252          PB       3
253          LS       0       68
254          UD   0.332

255          KK  SC405
256          KM  Smith Creek 405 Runoff
257          KO                                          22
258          BA  0.0677
259          PB       3
260          LS       0       68
261          UD   0.263

262          KK  DP405
263          KM  Combine RT401 SC403 and SC405
264          KO                                          22
265          HC       3

266          KK  RT405
267          KM  Smith Creek Route 405 to 407
268          KO                                          22
269          RK    1500  0.0210   0.120          TRAP        1         2
```

HEC-1 INPUT

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

  270         KK  SC101
  271         KM  Smith Creek 101 Runoff
  272         KO                                                22
  273         BA  0.0920
  274         PB       3
  275         LS       0       64
  276         UD   0.353

  277         KK  RT101
  278         KM  Tributary Route 101 to 103
  279         KO                                                22
  280         RK    2050  0.0424   0.055              TRAP                2

  281         KK  SC103
  282         KM  Smith Creek 103 Runoff
  283         KO                                                22
  284         BA  0.1670
  285         PB       3
  286         LS       0       65
  287         UD   0.348

  288         KK  SC105A
  289         KM  Smith Creek 105A Runoff
  290         KO                                                22
  291         BA  0.0693
  292         PB       3
  293         LS       0       70
  294         UD   0.345

  295         KK  DP103
  296         KM  Combine RT101 SC105A and SC103
  297         KO                                                22
  298         HC       3

  299         KK  RES106
  300         KM  Exisitng Detention Pond 106
  301         KO                                                22
  302         RS       1     STOR       -1
  303         SA    0.43     0.54     0.65     0.80     0.94     1.00
  304         SE    7320     7322     7324     7326     7328     7330
  305         SQ       0       50       80      100      190      250
  306         SE    7320     7322     7324     7326     7328     7330

  307         KK  RT103
  308         KM  Tributary Route RES103 to 105
  309         KO                                                22
  310         RK    1150  0.0478   0.055              TRAP                2

  311         KK  SC105B
  312         KM  Smith Creek 105B Runoff
  313         KO                                                22
  314         BA  0.0686
  315         PB       3
  316         LS       0       69
```

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LINE
ID   1.....2.....3.....4.....5.....6.....7.....8.....9.....10
  317          UD   0.345

  318          KK  DP105
  319          KM  Combine RT103 and SC105B
  320          KO                                          22
  321          HC       2

  322          KK  RT105A
  323          KM  Tributary Route 105 to 107A
  324          KO                                          22
  325          RK    1000  0.0395  0.0727            TRAP              2

  326          KK  SC107A
  327          KM  Smith Creek 107A Runoff
  328          KO                                          22
  329          BA  0.1367
  330          PB       3
  331          LS       0       69
  332          UD   0.273

  333          KK  RES108
  334          KM  EXISTING DETENTION POND 108
  335          KO                                          22
  336          RS       1     STOR       -1
  337          SV     0.0     0.20     0.68     1.35     2.32
  338          SE    7340     7342     7344     7346     7348
  339          SQ       0       20       48      220      822
  340          SE    7340     7342     7344     7346     7348

  341          KK  DP107A
  342          KM  Combine RT105A and RES108
  343          KO                                          22
  344          HC       2

  345          KK  RT105B
  346          KM  TRIBUTARY ROUTE 107A TO 107B
  347          KO                                          22
  348          RK    1000  0.0395  0.0727            TRAP              2

  349          KK  SC107B
  350          KM  SMITH CREEK 107B RUNOFF
  351          KO                                          22
  352          BA  0.0408
  353          PB       3
  354          LS       0       68
  355          UD   0.273

  356          KK  DP107B
  357          KM  COMBINE RT105B AND SC107B
  358          KO                                          22
  359          HC       2
```

HEC-1 INPUT

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

360          KK  RT107
361          KM  Tributary Route 107B to 109
362          KO                                          22
363          RK    1420   0 0359    0.120          TRAP                2

364          KK  SC109
365          KM  Smith Creek 109 Runoff
366          KO                                          22
367          BA  0.1637
368          PB       3
369          LS       0       69
370          UD   0.350

371          KK  DP109
372          KM  Combine RT107 and SC109
373          KO                                          22
374          HC       2

375          KK  RT109
376          KM  Tributary Route 109 to 111
377          KO                                          22
378          RK    3840   0.0453    0.120          TRAP                2

379          KK  SC111
380          KM  Smith Creek 111 Runoff
381          KO                                          22
382          BA  0.1894
383          PB       3
384          LS       0       69
385          UD   0.382

386          KK  DP111
387          KM  Combine RT109 and SC111
388          KO                                          22
389          HC       2

390          KK  SC407
391          KM  Smith Creek 407 Runoff
392          KO                                          22
393          BA  0.1685
394          PB       3
395          LS       0       68
396          UD   0.423

397          KK  DP407
398          KM  Combine DP111 RT405 and SC407
399          KO                                          22
400          HC       3
```

HEC-1 INPUT

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

401         KK  RT407A
402         KM  SMITH CREEK ROUTE 407 TO RES407
403         KO                                                  22
404         RK     665  0 0210    0 120              TRAP        1         2

405         KK  RES407
406         KM  REGIONAL POND RES 407
407         KO                                                  22
408         RS       1     STOR       -1
409         SV       0      .44     1.49     2.93     4.75     6.91     9.41    12 27    15 50
410         SE    6990     6992     6994     6996     6998     7000     7002     7004     7006
411         SQ       0       10       25       50       75      450      800     1000     1900
412         SE    6990     6992     6994     6996     6998     7000     7002     7004     7006

413         KK  RT407B
414         KM  ROUTE RES 407 TO DP 506
415         KO                                                  22
416         RK     340  0.0210    0.120              TRAP        1         2

417         KK  SC501
418         KM  Smith Creek 501 Runoff
419         KO                                                  22
420         BA  0.1219
421         PB       3
422         LS       0       68
423         UD   0.312

424         KK  SC503
425         KM  Smith Creek 503 Runoff
426         KO                                                  22
427         BA  0.1193
428         PB       3
429         LS       0       68
430         UD   0.334

431         KK  SC505
432         KM  Smith Creek 505 Runoff
433         KO                                                  22
434         BA  0.1923
435         PB       3
436         LS       0       68
437         UD   0.379

438         KK  DP505
439         KM  Combine SC501 SC503 and SC505
440         KO                                                  22
441         HC       3

442         KK  DP506
443         KM  Combine RT407 and DP505
444         KO                                                  22
445         HC       2
```

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

446         KK  RT506
447         KM  Smith Creek Route 506 to 507
448         KO                                          22
449         RK     750  0.0067  0.0978          TRAP        2         1

450         KK  SC507
451         KM  Smith Creek 507 Runoff
452         KO                                          22
453         BA  0.0958
454         PB        3
455         LS        0       68
456         UD   0.229

457         KK  DP507
458         KM  Combine RT506 and SC507
459         KO                                          22
460         HC        2

461         KK  RT507
462         KM  Smith Creek Route 507 to 509
463         KO                                          22
464         RK    2010  0.0268  0.0978          TRAP        2         1

465         KK  SC509
466         KM  Smith Creek 509 Runoff
467         KO                                          22
468         BA  0.1514
469         PB        3
470         LS        0       68
471         UD   0.405

472         KK  DP509
473         KM  Combine RT507 and SC509
474         KO                                          22
475         HC        2

476         KK  RT509
477         KM  Smith Creek Route 509 to 511
478         KO                                          22
479         RK    2650  0.0160  0.0978          TRAP        2         1

480         KK  SC511
481         KM  Smith Creek 511 Runoff
482         KO                                          22
483         BA  0.0907
484         PB        3
485         LS        0       68
486         UD   0.305
```

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

  487          KK  DP511
  488          KM  Combine RT509 and SC511
  489          KO                                                22
  490          HC       2

  491          KK  RT511
  492          KM  Smith Creek Route 511 to 603
  493          KO                                                22
  494          RK     670  0.0373  0.0978                  TRAP      2         1

  495          KK  SC601
  496          KM  Smith Creek 601 Runoff
  497          KO                                                22
  498          BA  0.0633
  499          PB       3
  500          LS       0       69
  501          UD   0.210

  502          KK  RT601
  503          KM  Tributary Route 601 to 603
  504          KO                                                22
  505          RK    1170  0.0359   0.090                  TRAP                2

  506          KK  SC603
  507          KM  Smith Creek 603 Runoff
  508          KO                                                22
  509          BA  0.2514
  510          PB       3
  511          LS       0       68
  512          UD   0.289

  513          KK  DP603
  514          KM  Combine RT601 and SC603
  515          KO                                                22
  516          HC       2

  517          KK  DP604
  518          KM  Combine RT511 and DP603
  519          KO                                                22
  520          HC       2

  521          KK  RT604
  522          KM  Smith Creek Route 604 to 609
  523          KO                                                22
  524          RK    1380  0.0236  0.0928                  TRAP      2         1

  525          KK  SC607
  526          KM  Smith Creek 607 Runoff
  527          KO                                                22
  528          BA  0.0840
  529          PB       3
  530          LS       0       69
  531          UD   0.270
```

HEC-1 INPUT

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

  532          KK  SC609
  533          KM  Smith Creek 609 Runoff
  534          KO                                                  22
  535          BA  0.1389
  536          PB       3
  537          LS       0       69
  538          UD   0.326

  539          KK  DP609
  540          KM  Combine RT604 SC607 and SC609
  541          KO                                                  22
  542          HC       3

  543          KK  RES610
  544          KM  Smith Creek Reservoir Route 610
  545          KO                                                  22
  546          RS       1     STOR       -1
  547          SA     2.2      2.7      3.3      3.8      4.4      5.1      5.8
  548          SE    6822     6823     6824     6825     6826     6827     6828
  549          SQ       0       11      701     2361     4843    10331    16010
  550          SE    6822     6823     6824     6825     6826     6827     6828

  551          KK  SC605A
  552          KM  Smith Creek 605A Runoff
  553          KO                                                  22
  554          BA  0.0505
  555          PB       3
  556          LS       0       68
  557          UD   0.252

  558          KK  RT605
  559          KM  SMITH CREEK ROUTE 605 TO DP610
  560          KO                                                  22
  561          RK    2000     0.03    0.013              TRAP        2        2

  562          KK  SC605B
  563          KM  SMITH CREEK 605B RUNOFF
  564          KO                                                  22
  565          BA  0.0778
  566          PB       3
  567          LS       0       75
  568          UD   0.252

  569          KK  RES605
  570          KM  FUTURE POND 605
  571          KO                                                  22
  572          RS       1     STOR       -1
  573          SV       0    0.099    0.218     0.36    0.526    0.718    0.937    1.185    1.463
1.773
  574          SV   2.117    2.496    2.912
  575          SE    6818     6819     6820     6821     6822     6823     6824     6825     6826
6827
  576          SE    6828     6829     6830
  577          SQ       0     5.18    19.37    40 40    65.78    92.88   119.23   143.30   162.05
176.76
  578          SQ  190.33   202.99   214.91
  579          SE    6818     6819     6820     6821     6822     6823     6824     6825     6826
6827
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         LINE
ID.....1 .... 2. .....3. .....4.. . .5.....6... . 7 . 8... ..9.....10

         580          SE    6828    6829    6830

         581          KK  DP610
         582          KM  COMBINE RES 610 RES 605 AND RT605
         583          KO                                      22
         584          HC       3

         585          KK  RT610
         586          KM  Smith Creek Route 610 to 611
         587          KO                                      22
         588          RK    3200  0.0226   0.090            TRAP       2        1

         589          KK  SC611
         590          KM  Smith Creek 611 Runoff
         591          KO                                      22
         592          BA  0.1095
         593          PB       3
         594          LS       0       69
         595          UD   0.149

         596          KK  DP611
         597          KM  Combine RT610 and SC611
         598          KO                                      22
         599          HC       2

         600          KK  RES612
         601          KM  Smith Creek Reservoir Route 612
         602          KO                                      22
         603          RS       1    STOR      -1
         604          SA    1.82    2.77    3.72     4.5    5.28    5.78
         605          SE    6762    6763    6764    6765    6766  6766.5
         606          SQ       0     150     510    1160    2120    2680
         607          SE    6762    6763    6764    6765    6766  6766.5

         608          KK  RT612
         609          KM  Smith Creek Route 612 to 617
         610          KO                                      22
         611          RK    2250  0.0240  0.0866            TRAP       2        1

         612          KK  SC613
         613          KM  Smith Creek 613 Runoff
         614          KO                                      22
         615          BA  0.1233
         616          PB       3
         617          LS       0       75
         618          UD   0.270

         619          KK  RES613
         620          KM  EXISTING POND 613
         621          KO                                      22
         622          RS       1    STOR      -1
         623          SA    0.12    0.96    1.09    1.21    1.34    1.47
         624          SE    6794    6796    6798    6800    6802    6804
         625          SQ    4.67    7.44    9.43   22.99   29.35   34.42
         626          SE    6794    6796    6798    6800    6802    6804
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HEC-1 INPUT

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

627          KK  RT618
628          KM  SMITH CREEK ROUTE RES613 TO DP  618
629          KO                                          22
630          RK    1100    0 030    0 013            TRAP        2        2

631          KK  SC617A
632          KM
633          KO                                          22
634          BA  0.0149
635          PB       3
636          LS       0       73
637          UD   0.162

638          KK  RES617
639          KM  FUTURE POND 617
640          KO                                          22
641          RS       1    STOR      -1
642          SV    6740    6745    6748    6750
643          SE       0     0.5     1.0     1.5
644          SQ       0      30      40      63
645          SE    6740    6745    6748    6750

646          KK  SC618
647          KM  SMITH CREEK 618 RUNOFF
648          KO                                          22
649          BA   0.007
650          PB       3
651          LS       0       73
652          UD    0.15

653          KK  RES618
654          KM  FUTURE POND 618
655          KO                                          22
656          RS       1    STOR      -1
657          SV       0     0.5     1.0
658          SE    6768    6770    6772
659          SQ       0       3       6
660          SE    6768    6770    6772

661          KK  DP618
662          KM  COMBINE RES 613 RES 618 AND RT618
663          KO                                          22
664          HC       3

665          KK  SC615B
666          KM  Smith Creek 615B Runoff
667          KO                                          22
668          BA  0.0313
669          PB       3
670          LS       0       78
671          UD   0.160
```