```
ID      LINE  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
      230     LS       0       65
      231     UD   0.437

      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
      245     LS       0       66
      246     UD   0.333

      247     KK  SC405
      248     KM  Smith Creek 405 Runoff
      249     KO                                          22
      250     BA  0.0677
      251     PB       4
      252     LS       0       64
      253     UD   0.356

      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
      267     LS       0       64
      268     UD   0.353
```

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LINE
ID.....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
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
285          LS       0       69
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 RES106 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
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
  323          LS       0       68
  324          UD   0.287

  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
  346          LS       0       68
  347          UD   0.287

  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
```

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

  356          KK  SC109
  357          KM  Smith Creek 109 Runoff
  358          KO                                                    22
  359          BA  0.1637
  360          PB        4
  361          LS        0       68
  362          UD   0.398

  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
  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
  387          LS        0       65
  388          UD   0.455

  389          KK  DP407
  390          KM  Combine RT405 DP111 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
```

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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
          402          LS       0       65
          403          UD , 0.313

          404          KK  SC503
          405          KM  Smith Creek 503 Runoff
          406          KO                                      22
          407          BA  0.1193
          408          PB       4
          409          LS       0       64
          410          UD   0.382

          411          KK  SC505
          412          KM  Smith Creek 505 Runoff
          413          KO                                      22
          414          BA  0.1923
          415          PB       4
          416          LS       0       65
          417          UD   0.380

          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
          435          LS       0       68
          436          UD   0.267

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

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          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
          450          LS       0       69
          451          UD   0.411

          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
          465          LS       0       68
          466          UD   0.313

          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 604
          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
          480          LS       0       69
          481          UD   0.302
```

HEC-1 INPUT

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

  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
  491          LS        0       68
  492          UD   0.325

  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  SC605
  506          KM  Smith Creek 605 Runoff
  507          KO                                                  22
  508          BA  0.1283
  509          PB        4
  510          LS        0       69
  511          UD   0.494

  512          KK  SC607
  513          KM  Smith Creek 607 Runoff
  514          KO                                                  22
  515          BA  0.0840
  516          PB        4
  517          LS        0       69
  518          UD   0.270

  519          KK  SC609
  520          KM  Smith Creek 609 Runoff
  521          KO                                                  22
  522          BA  0.1389
  523          PB        4
  524          LS        0       69
  525          UD   0.342
```

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

  526          KK  DP609
  527          KM  Combine RT604 SC605 SC607 and SC609
  528          KO                                          22
  529          HC       4

  530          KK  RES610
  531          KM  Smith Creek Reservoir Route 610
  532          KO                                          22
  533          RS       1    STOR      -1
  534          SA     2.2     2.7     3.3     3.8     4.4     5.1     5.8
  535          SE    6822    6823    6824    6825    6826    6827    6828
  536          SQ       0      11     701    2361    4843   10331   16010

  537          KK  RT610
  538          KM  Smith Creek Route RES610 to 611
  539          KO                                          22
  540          RK    3200  0.0226   0.090             TRAP       2       1

  541          KK  SC611
  542          KM  Smith Creek 611 Runoff
  543          KO                                          22
  544          BA  0.1095
  545          PB       4
  546          LS       0      69
  547          UD   0.229

  548          KK  DP611
  549          KM  Combine RT610 and SC611
  550          KO                                          22
  551          HC       2

  552          KK  RES612
  553          KM  Smith Creek Reservoir Route 612
  554          KO                                          22
  555          RS       1    STOR      -1
  556          SA    1.82    2.77    3.72     4.5    5.28    5.78
  557          SE    6762    6763    6764    6765    6766  6766.5
  558          SQ       0     150     510    1160    2120    2680

  559          KK  RT612
  560          KM  Smith Creek Route RES612 to 617
  561          KO                                          22
  562          RK    2250  0.0240  0.0866             TRAP       2       1

  563          KK  SC613
  564          KM  Smith Creek 613 Runoff
  565          KO                                          22
  566          BA  0.1233
  567          PB       4
  568          LS       0      69
  569          UD    0.30
```

HEC-1 INPUT

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

      570     KK  RT613
      571     KM  SMITH CREEK ROUTE 613 TO DP 613
      572     KO                                          22
      573     RK    2000  0.0360   0.030            TRAP       2       4

      574     KK  SC615B
      575     KM  Smith Creek 615B Runoff
      576     KO                                          22
      577     BA  0.0313
      578     PB       4
      579     LS       0      78
      580     UD   0.160

      581     KK  RES614
      582     KM  EXISTING POND 614
      583     KO                                          22
      584     RS       1    STOR      -1
      585     SV       0   0.067    0.32    0.67    1.16     1.5
      586     SE    6722    6724    6726    6728    6730    6732
      587     SQ       0       4       6      10    13.3      20
      588     SE    6722    6724    6726    6728    6730    6732

      589     KK  SC617A
      590     KM
      591     KO                                          22
      592     BA  0.0701
      593     PB       4
      594     LS       0      69
      595     UD   0.258

      596     KK  SC615A
      597     KM  SMITH CREEK 615A
      598     KO                                          22
      599     BA  0.0567
      600     PB       4
      601     LS       0      69
      602     UD   0.180

      603     KK  DP613
      604     KM  COMBINE RT612 SC615A SC617A RT613 RES614
      605     KO                                          22
      606     HC       5

      607     KK  RT614
      608     KM  SMITH CREEK ROUTE 613 TO 617
      609     KO                                          22
      610     RK    1200   0.022   0.030            TRAP       2       4

      611     KK  SC617B
      612     KM  Smith Creek 617B Runoff
      613     KO                                          22
      614     BA  0.0215
      615     PB       4
      616     LS       0      69
```

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ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
 617          UD   0 228

 618          KK  DP617
 619          KM  Combine RT614 and SC617B
 620          KO                                          22
 621          HC       2

 622          KK  RT617
 623          KM  Smith Creek Route 617 to 703
 624          KO                                          22
 625          RK    1470  0.0061    0.085            TRAP       2        1

 626          KK  SC701
 627          KM  Smith Creek 701 Runoff
 628          KO                                          22
 629          BA  0.0722
 630          PB       4
 631          LS       0       92
 632          UD   0.360

 633          KK  SC703
 634          KM  Smith Creek 703 Runoff
 635          KO                                          22
 636          BA  0.1305
 637          PB       4
 638          LS       0       77
 639          UD   0.092

 640          KK  DP703
 641          KM  Combine RT617 SC701 and SC703
 642          KO                                          22
 643          HC       3

 644          KK  RT703
 645          KM  Smith Creek Route 703 to 705
 646          KO                                          22
 647          RK    2780  0.0338  0.0786            TRAP       3        1

 648          KK  SC705
 649          KM  Smith Creek 705 Runoff
 650          KO                                          22
 651          BA  0.0869
 652          PB       4
 653          LS       0       69
 654          UD   0.329

 655          KK  DP705
 656          KM  Combine RT703 and SC705
 657          KO                                          22
 658          HC       2
 659          ZZ
```

HEC1 S/N: 1343001909 HMVersion: 6.33 Data File: C:\WINNT\TEMP\~vbh0C39.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	41.	6.00	7.	3.	1.	0.10
	ROUTED TO	RT205	40.	6.00	7.	3.	1.	0.10
	HYDROGRAPH AT	SC207	50.	6.00	10.	3.	1.	0.12
	HYDROGRAPH AT	SC213	54.	6.00	11.	4.	1.	0.12
	3 COMBINED AT	DP213	145.	6.00	28.	9.	3.	0.34
	ROUTED TO	RT213	139.	6.00	28.	10.	3.	0.34
	HYDROGRAPH AT	SC209	43.	6.00	8.	3.	1.	0.14
	HYDROGRAPH AT	SC211	24.	6.00	5.	2.	1.	0.08
	HYDROGRAPH AT	SC215	21.	5.75	4.	1.	0.	0.06
	4 COMBINED AT	DP215	226.	6.00	46.	16.	5.	0.62
	ROUTED TO	RT215	208.	6.00	46.	16.	5.	0.62
	HYDROGRAPH AT	SC219	39.	6.00	8.	3.	1.	0.13
	2 COMBINED AT	DP219	248.	6.00	54.	19.	6.	0.75
	HYDROGRAPH AT	SC201	42.	6.00	8.	3.	1.	0.12
	ROUTED TO	RT201	39.	6.00	8.	3.	1.	0.12
	HYDROGRAPH AT	SC203	37.	5.75	7.	2.	1.	0.11
	2 COMBINED AT	DP203	75.	6.00	15.	5.	2.	0.23
	ROUTED TO	RT203	71.	6.00	15.	5.	2.	0.23
	HYDROGRAPH AT	SC217	19.	5.75	3.	1.	0.	0.05
	2 COMBINED AT	DP217	88.	6.00	19.	6.	2.	0.29
	2 COMBINED AT	DP220	336.	6.00	72.	25.	8.	1.03
	ROUTED TO	RT220	327.	6.00	73.	25.	8.	1.03
	HYDROGRAPH AT	SC301	51.	6.00	9.	3.	1.	0.12

HYDROGRAPH AT	SC303	54	6 00	10.	3.	1.	0 13
2 COMBINED AT	DP303	105.	6 00	19.	7.	2.	0 25
ROUTED TO	RT303	103.	6 00	19.	7.	2.	0 25
HYDROGRAPH AT	SC305	26.	6. 00	5	2	1	0. 06
2 COMBINED AT	DP305	129	6. 00	24.	8.	3.	0. 31
ROUTED TO	RT305	121.	6 00	24.	8.	3	0. 31
HYDROGRAPH AT	SC307	35.	6. 00	8.	3.	1.	0. 11
HYDROGRAPH AT	SC309	46.	6. 00	9.	3.	1.	0. 12
HYDROGRAPH AT	SC311	45.	6. 00	8.	3.	1.	0. 11
4 COMBINED AT	DP311	247	6. 00	50.	17.	6.	0. 65
ROUTED TO	RT311	217.	6. 00	50.	17.	6.	0. 65
HYDROGRAPH AT	SC313	58.	6. 00	12	4.	1.	0. 15
HYDROGRAPH AT	SC315	35.	6. 00	7.	2	1.	0. 09
3 COMBINED AT	DP315	309.	6. 00	68.	23.	8.	0. 89
2 COMBINED AT	DP316	636	6. 00	141.	49.	16.	1. 92
ROUTED TO	RT316	577	6. 25	140.	49.	16.	1. 92
HYDROGRAPH AT	SC401	55.	6. 00	12.	4.	1.	0. 15
2 COMBINED AT	DP401	628.	6. 25	153.	53.	18.	2. 07
ROUTED TO	RT401	627	6. 25	153.	53.	18.	2. 07
HYDROGRAPH AT	SC403	48.	6. 00	9.	3.	1.	0. 10
HYDROGRAPH AT	SC405	27.	6. 00	5.	2	1.	0. 07
3 COMBINED AT	DP405	677	6. 25	167.	58.	19.	2. 24
ROUTED TO	RT405	673	6 25	167.	58.	19.	2. 24
HYDROGRAPH AT	SC101	36.	6 00	7.	2.	1	0. 09
ROUTED TO	RT101	33	6. 00	7.	2	1.	0. 09
HYDROGRAPH AT	SC103	72.	6 00	14	5.	2	0. 17
HYDROGRAPH AT							

		SC105A	39	6.00	7.	2.	1.	0.07
	3 COMBINED AT	DP103	144	6.00	28.	9.	3.	0.33
	ROUTED TO	RES106	89	6.25	28.	9.	3	0.33
7324.86	6.25							
	ROUTED TO	RT103	88.	6.50	28.	9.	3.	0.33
	HYDROGRAPH AT	SC105B	39.	6.00	7.	2.	1.	0.07
	2 COMBINED AT	DP105	113	6.25	35.	12.	4.	0.40
	ROUTED TO	RT105A	113.	6.25	35.	12.	4.	0.40
	HYDROGRAPH AT	SC107A	76.	6.00	13.	4.	1.	0.14
	ROUTED TO	RES108	69.	6.00	13.	4.	1.	0.14
7344.25	6.00							
	2 COMBINED AT	DP107A	171.	6.00	48.	16.	5.	0.53
	ROUTED TO	RT105B	167.	6.25	48.	16.	5.	0.53
	HYDROGRAPH AT	SC107B	23.	6.00	4.	1.	0.	0.04
	2 COMBINED AT	DP107B	184.	6.00	52.	18.	6.	0.57
	ROUTED TO	RT107	181.	6.25	52.	18.	6.	0.57
	HYDROGRAPH AT	SC109	80.	6.00	16.	5.	2.	0.16
	2 COMBINED AT	DP109	246.	6.25	68.	23.	8.	0.74
	ROUTED TO	RT109	245.	6.25	67.	23	8.	0.74
	HYDROGRAPH AT	SC111	102.	6.00	19.	6.	2.	0.19
	2 COMBINED AT	DP111	324.	6.25	86.	29.	10.	0.93
	HYDROGRAPH AT	SC407	59	6.00	14.	5.	2.	0.17
	3 COMBINED AT	DP407	1054.	6.25	267.	92.	31.	3.34
	ROUTED TO	RT407	1037.	6.25	267.	92.	31.	3.34
	HYDROGRAPH AT	SC501	55.	6.00	10.	3.	1.	0.12
	HYDROGRAPH AT	SC503	45.	6.00	9.	3	1.	0.12
	HYDROGRAPH AT	SC505	78	6.00	16.	5.	2.	0.19
	3 COMBINED AT	DP505	178	6.00	35.	12	4.	0.43

2 COMBINED AT	DP506	1168.	6.25	301	104	35.	3.77
ROUTED TO	RT506	1154.	6.25	302	104.	35	3.77
HYDROGRAPH AT	SC507	53.	6.00	9.	3.	1.	0.10
2 COMBINED AT	DP507	1181.	6.25	311.	107.	36.	3.87
ROUTED TO	RT507	1154.	6.25	311.	108.	36.	3.87
HYDROGRAPH AT	SC509	77.	6.00	16	5.	2.	0.15
2 COMBINED AT	DP509	1219.	6.25	327	113.	38.	4.02
ROUTED TO	RT509	1159.	6.25	325.	113.	38.	4.02
HYDROGRAPH AT	SC511	50.	6.00	9.	3.	1.	0.09
2 COMBINED AT	DP511	1188.	6.25	334	116.	39.	4.11
ROUTED TO	RT511	1173.	6.25	334.	116.	39.	4.11
HYDROGRAPH AT	SC601	37.	6.00	7.	2.	1.	0.06
ROUTED TO	RT601	35.	6.00	7.	2.	1.	0.06
HYDROGRAPH AT	SC603	138.	6.00	24.	8.	3.	0.25
2 COMBINED AT	DP603	173.	6.00	31.	10.	3.	0.31
2 COMBINED AT	DP604	1283.	6.25	365.	126.	42.	4.43
ROUTED TO	RT604	1252.	6.25	365.	127.	42.	4.43
HYDROGRAPH AT	SC605	56.	6.25	13.	4.	1.	0.13
HYDROGRAPH AT	SC607	50.	6.00	9.	3.	1.	0.08
HYDROGRAPH AT	SC609	79.	6.00	14.	5.	2.	0.14
4 COMBINED AT	DP609	1386.	6.25	401.	139.	46.	4.78
ROUTED TO	RES610	1376.	6.25	397	138.	46.	4.78
6824.41 6.25							
ROUTED TO	RT610	1320.	6.50	398	138.	46.	4.78
HYDROGRAPH AT	SC611	67.	5.75	11.	4.	1.	0.11
2 COMBINED AT	DP611	1337.	6.50	407	142	48	4.89
ROUTED TO	RES612	1362.	6.50	406	142.	48.	4.89

6765.21	6.50						
	ROUTED TO	RT612	1343.	6.50	406	142.	48	4.89
	HYDROGRAPH AT	SC613	73.	6.00	13.	4.	1	0.12
	ROUTED TO	RT613	70.	6.00	13.	4	1	0.12
	HYDROGRAPH AT	SC615B	43.	5.75	5.	2.	1.	0.03
	ROUTED TO	RES614	13	6.25	5	2.	1.	0.03
6729.58	6.25						
	HYDROGRAPH AT	SC617A	41.	6.00	7.	2.	1.	0.07
	HYDROGRAPH AT	SC615A	44.	5.75	6.	2.	1	0.06
	5 COMBINED AT	DP613	1402.	6.50	433.	152.	51.	5.17
	ROUTED TO	RT614	1392.	6.50	434.	153.	51.	5.17
	HYDROGRAPH AT	SC617B	13.	5.75	2.	1.	0.	0.02
	2 COMBINED AT	DP617	1396.	6.50	435	153.	51.	5.19
	ROUTED TO	RT617	1360.	6.50	436.	153.	52.	5.19
	HYDROGRAPH AT	SC701	121.	6.00	20.	6.	2.	0.07
	HYDROGRAPH AT	SC703	189.	5.75	20.	6.	2.	0.13
	3 COMBINED AT	DP703	1418.	6.50	473.	166.	56.	5.39
	ROUTED TO	RT703	1381.	6.50	472.	166.	56.	5.39
	HYDROGRAPH AT	SC705	51.	6.00	9.	3.	1.	0.09
	2 COMBINED AT	DP705	1400.	6.50	481.	169.	57.	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	1.30	40.82	361.71	0.97	15.00	40.25	360.00	0.98

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.5031E+01 EXCESS=0.0000E+00 OUTFLOW=0.5034E+01 BASIN STORAGE=
0.5570E-09 PERCENT ERROR= -0.1

RT213	MANE	0.83	144.21	361.68	1.04	15.00	138.57	360.00	1.04

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1884E+02 EXCESS=0.0000E+00 OUTFLOW=0.1884E+02 BASIN STORAGE=
0.2040E-08 PERCENT ERROR= 0.0

RT215	MANE	1.53	223.92	363.35	0.95	15.00	208.47	360.00	0.95

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.3116E+02 EXCESS=0.0000E+00 OUTFLOW=0.3116E+02 BASIN STORAGE=
0.1969E-07 PERCENT ERROR= 0.0

RT201	MANE	1.34	41.73	362.55	0.86	15.00	38.92	360.00	0.87

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.5606E+01 EXCESS=0.0000E+00 OUTFLOW=0.5607E+01 BASIN STORAGE=
0.9694E-09 PERCENT ERROR= 0.0

RT203	MANE	1.58	73.95	363.64	0.84	15.00	71.12	360.00	0.85

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1045E+02 EXCESS=0.0000E+00 OUTFLOW=0.1046E+02 BASIN STORAGE=
0.7093E-08 PERCENT ERROR= 0.0

RT220	MANE	0.54	334.68	360.92	0.90	15.00	326.94	360.00	0.91

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.4981E+02 EXCESS=0.0000E+00 OUTFLOW=0.4981E+02 BASIN STORAGE=
0.2010E-07 PERCENT ERROR= 0.0

RT303	MANE	0.70	104.61	361.36	0.97	15.00	102.61	360.00	0.98

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1294E+02 EXCESS=0.0000E+00 OUTFLOW=0.1295E+02 BASIN STORAGE=
0.1055E-09 PERCENT ERROR= 0.0

RT305	MANE	1.44	126.26	363.38	0.98	15.00	120.79	360.00	0.98

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1625E+02 EXCESS=0.0000E+00 OUTFLOW=0.1625E+02 BASIN STORAGE=
0.3997E-08 PERCENT ERROR= 0.0

RT311	MANE	2.21	243.51	365.10	0.98	15.00	216.67	360.00	0.98

CONTINUITY SUMMARY (AC-FT) - INFLOW=0 3389E+02 EXCESS=0.0000E+00 OUTFLOW=0 3390E+02 BASIN STORAGE=
0 8085E-07 PERCENT ERROR= 0 0

RT316 MANE 2.13 631.55 364.85 0.94 15.00 577 09 375.00
0 94

CONTINUITY SUMMARY (AC-FT) - INFLOW=0 9631E+02 EXCESS=0 0000E+00 OUTFLOW=0 9631E+02 BASIN STORAGE=
0.5762E-06 PERCENT ERROR= 0 0

RT401 MANE 0.59 627.09 375 43 0.95 15.00 626.69 375.00
0.95

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1051E+03 EXCESS=0.0000E+00 OUTFLOW=0.1051E+03 BASIN STORAGE=
0 1798E-06 PERCENT ERROR= 0.0

RT405 MANE 1.48 675.17 377.32 0.96 15.00 673.35 375.00
0.96

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1146E+03 EXCESS=0.0000E+00 OUTFLOW=0.1146E+03 BASIN STORAGE=
0 8846E-06 PERCENT ERROR= 0.0

RT101 MANE 1.75 36.12 363.22 0.97 15.00 32.69 360.00
0.98

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.4771E+01 EXCESS=0.0000E+00 OUTFLOW=0.4772E+01 BASIN STORAGE=
0.2332E-08 PERCENT ERROR= 0.0

RT103 MANE 0.90 88.55 376.84 1.06 15.00 87.80 390.00
1.07

CONTINUITY SUMMARY (AC-FT) - INFLOW=0 1864E+02 EXCESS=0.0000E+00 OUTFLOW=0.1864E+02 BASIN STORAGE=
0.3639E-08 PERCENT ERROR= 0.0

RT105A MANE 0.90 112.94 376.36 1.10 15.00 112.53 375.00
1.10

CONTINUITY SUMMARY (AC-FT) - INFLOW=0 2330E+02 EXCESS=0.0000E+00 OUTFLOW=0.2330E+02 BASIN STORAGE=
0 8536E-08 PERCENT ERROR= 0.0

RT105B MANE 0.77 170.55 361.66 1.13 15.00 167.29 375.00
1.13

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.3213E+02 EXCESS=0.0000E+00 OUTFLOW=0.3213E+02 BASIN STORAGE=
0.1469E-07 PERCENT ERROR= 0.0

RT107 MANE 1.57 184.05 363.09 1 14 15.00 180.68 375.00
1.14

CONTINUITY SUMMARY (AC-FT) - INFLOW=0 3482E+02 EXCESS=0 0000E+00 OUTFLOW=0.3482E+02 BASIN STORAGE=
0.7632E-07 PERCENT ERROR= 0.0

RT109 MANE 3.47 245 99 380.77 1 15 15.00 245.34 375.00
1 15

CONTINUITY SUMMARY (AC-FT) - INFLOW=0 4542E+02 EXCESS=0.0000E+00 OUTFLOW=0.4539E+02 BASIN STORAGE=
0 6214E-06 PERCENT ERROR= 0.1

RT407 MANE 1.01 1048.97 376.54 1 02 15 00 1036 98 375.00
1 03

CONTINUITY SUMMARY (AC-FT) - INFLOW=0 1823E+03 EXCESS=0 0000E+00 OUTFLOW=0. 1823E+03 BASIN STORAGE=
0. 1319E-05 PERCENT ERROR= 0 0

RT506	MANE	0 74	1165 02	376 16	1 02	15 00	1153 81	375 00
1 03								

CONTINUITY SUMMARY (AC-FT) - INFLOW=0 2062E+03 EXCESS=0 0000E+00 OUTFLOW=0. 2062E+03 BASIN STORAGE=
0. 1648E-05 PERCENT ERROR= 0 0

RT507	MANE	1 17	1174 50	377 80	1 03	15 00	1153 71	375 00
1 03								

CONTINUITY SUMMARY (AC-FT) - INFLOW=0 2128E+03 EXCESS=0 0000E+00 OUTFLOW=0. 2128E+03 BASIN STORAGE=
0. 3583E-05 PERCENT ERROR= 0 0

RT509	MANE	1 96	1208 15	379 58	1 04	15 00	1158 59	375 00
1 05								

CONTINUITY SUMMARY (AC-FT) - INFLOW=0. 2236E+03 EXCESS=0. 0000E+00 OUTFLOW=0. 2236E+03 BASIN STORAGE=
0. 1029E-04 PERCENT ERROR= 0 0

RT511	MANE	0 49	1186 64	376 00	1 05	15 00	1172 71	375 00
1 05								

CONTINUITY SUMMARY (AC-FT) - INFLOW=0. 2299E+03 EXCESS=0. 0000E+00 OUTFLOW=0. 2299E+03 BASIN STORAGE=
0. 2182E-05 PERCENT ERROR= 0 0

RT601	MANE	1 62	37 03	363 02	1 27	15 00	35 48	360 00
1 27								

CONTINUITY SUMMARY (AC-FT) - INFLOW=0. 4276E+01 EXCESS=0. 0000E+00 OUTFLOW=0. 4276E+01 BASIN STORAGE=
0. 1395E-08 PERCENT ERROR= 0 0

RT604	MANE	0 80	1278 79	377 16	1 06	15 00	1252 06	375 00
1 06								

CONTINUITY SUMMARY (AC-FT) - INFLOW=0. 2506E+03 EXCESS=0. 0000E+00 OUTFLOW=0. 2506E+03 BASIN STORAGE=
0. 5989E-05 PERCENT ERROR= 0 0

RT610	MANE	1 87	1370 66	379 68	1 08	15 00	1320 24	390 00
1 08								

CONTINUITY SUMMARY (AC-FT) - INFLOW=0. 2748E+03 EXCESS=0. 0000E+00 OUTFLOW=0. 2747E+03 BASIN STORAGE=
0. 2268E-04 PERCENT ERROR= 0 0

RT612	MANE	1 20	1358 02	392 70	1 09	15 00	1342 87	390 00
1 09								

CONTINUITY SUMMARY (AC-FT) - INFLOW=0 2828E+03 EXCESS=0 0000E+00 OUTFLOW=0. 2829E+03 BASIN STORAGE=
0. 2197E-04 PERCENT ERROR= 0 0

RT613	MANE	1 25	72 05	362 11	1 27	15 00	70 23	360 00
1 27								

CONTINUITY SUMMARY (AC-FT) - INFLOW=0. 8329E+01 EXCESS=0. 0000E+00 OUTFLOW=0. 8330E+01 BASIN STORAGE=
0. 1184E-08 PERCENT ERROR= 0 0

RT614	MANE	0 39	1401 34	390 79	1 10	15 00	1392 38	390 00
1 10								

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.3035E+03 EXCESS=0.0000E+00 OUTFLOW=0.3035E+03 BASIN STORAGE=
0.7490E-05 PERCENT ERROR= 0.0

RT617 MANE 1.38 1392.46 392.86 1.10 15.00 1359.87 390.00
1.10

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.3052E+03 EXCESS=0.0000E+00 OUTFLOW=0.3052E+03 BASIN STORAGE=
0.3470E-04 PERCENT ERROR= 0.0

RT703 MANE 1.29 1413.04 392.28 1.15 15.00 1381.21 390.00
1.15

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.3303E+03 EXCESS=0.0000E+00 OUTFLOW=0.3303E+03 BASIN STORAGE=
0.5036E-04 PERCENT ERROR= 0.0

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

100 year existing
HEC1 S/N: 1343001909 HMVersion: 6.33 Data File: C:\WINNT\TEMP\~vbh1324.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  06/19/2001  TIME  16:42.10 *
(916) 756-1104              *
*                                    *
*                                    *
**************************************
**************************************
```

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

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

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

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

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.

THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION

NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,

DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL. LOSS RATE-GREEN AND AMPT INFILTRATION

KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

HEC-1 INPUT

```
ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
LINE
    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   0.097
    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      64
   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   0.120
   30   PB     4.6
   31   LS      0      65
   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      66
   39   UD   0.382

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

  48          KK  SC209
  49          KM  Smith Creek 209 Runoff
  50          KO                                          22
  51          BA  0.1351
  52          PB     4.6
  53          LS       0       61
  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       62
  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       61
  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       62
  94          UD   0.340
```

```
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     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       61
         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       64
         139          UD   0.265
```

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     4.6
  145          LS       0       64
  146          UD   0.322

  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       64
  161          UD   0.331

  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       64
  176          UD   0.455

  177          KK  SC309
  178          KM  Smith Creek 309 Runoff
  179          KO                                          22
  180          BA  0.1240
  181          PB     4.6
  182          LS       0       64
  183          UD   0.383
```

```
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       64
190           UD   0.295

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 313
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       64
205           UD   0.373

206           KK  SC315
207           KM  Smith Creek 315 Runoff
208           KO                                          22
209           BA  0.0886
210           PB     4.6
211           LS       0       64
212           UD   0.350

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
```

```
ID.....  LINE  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       65
  231          UD   0.437

  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       66
  246          UD   0.333

  247          KK  SC405
  248          KM  Smith Creek 405 Runoff
  249          KO                                          22
  250          BA  0 0677
  251          PB     4.6
  252          LS       0       64
  253          UD   0.356

  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   0.092
  266          PB     4.6
  267          LS       0       64
  268          UD   0.353
```

HEC-1 INPUT

```
LINE
ID.....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   0.167
  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       69
  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 103 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
```

HEC-1 INPUT

```
ID        LINE
          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       68
          324         UD   0.287

          325         KK  RES108
          326         KM  EXISTING DETENTION POND 108
          327         KO                                          22
          328         RS       1     STOR      -1
          329         SV       0      0.2     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   0.287

          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

```
LINE
ID.....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       68
  362          UD   0.398

  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       65
  388          UD   0.455

  389          KK  DP407
  390          KM  Combine RT405 DP111 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
```

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

 397          KK  SC501
 398          KM  Smith Creek 501 Runoff
 399          KO                                          22
 400          BA  0.1219
 401          PB     4.6
 402          LS       0       65
 403          UD   0.313

 404          KK  SC503
 405          KM  Smith Creek 503 Runoff
 406          KO                                          22
 407          BA  0.1193
 408          PB     4.6
 409          LS       0       64
 410          UD   0.382

 411          KK  SC505
 412          KM  Smith Creek 505 Runoff
 413          KO                                          22
 414          BA  0.1923
 415          PB     4.6
 416          LS       0       65
 417          UD   0.380

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

 422          KK  DP506
 423          KM  Combine R1407 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   0.267

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

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

  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       69
  451          UD   0.411

  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   0.313

  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 604
  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   0.302
```

```
ID.      LINE 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   0 325

  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  SC605
  506          KM  Smith Creek 605 Runoff
  507          KO                                                22
  508          BA  0 1283
  509          PB     4.6
  510          LS        0       69
  511          UD   0.494

  512          KK  SC607
  513          KM  Smith Creek 607 Runoff
  514          KO                                                22
  515          BA  0.0840
  516          PB     4.6
  517          LS        0       69
  518          UD   0.270

  519          KK  SC609
  520          KM  Smith Creek 609 Runoff
  521          KO                                                22
  522          BA  0.1389
  523          PB     4.6
  524          LS        0       69
  525          UD   0.342
```

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

526          KK  DP609
527          KM  Combine RT604 SC605 SC607 and SC609
528          KO                                          22
529          HC       4

530          KK  RES610
531          KM  Smith Creek Reservoir Route 610
532          KO                                          22
533          RS       1     STOR       -1
534          SA     2.2     2.7      3.3      3.8      4.4      5.1      5.8
535          SE    6822    6823     6824     6825     6826     6827     6828
536          SQ       0      11      701     2361     4843    10331    16010

537          KK  RT610
538          KM  Smith Creek Route 610 to 611
539          KO                                          22
540          RK    3200  0.0226   0.090              TRAP        2        1

541          KK  SC611
542          KM  Smith Creek 611 Runoff
543          KO                                          22
544          BA  0.1095
545          PB     4.6
546          LS       0       69
547          UD   0.229

548          KK  DP611
549          KM  Combine RT610 and SC611
550          KO                                          22
551          HC       2

552          KK  RES612
553          KM  Smith Creek Reservoir Route 612
554          KO                                          22
555          RS       1     STOR       -1
556          SA    1.82     2.77     3.72      4.5     5.28     5.78
557          SE    6762     6763     6764     6765     6766   6766.5
558          SQ       0      150      510     1160     2120     2680

559          KK  RT612
560          KM  Smith Creek Route RES612 to 613
561          KO                                          22
562          RK    2250  0.0240   0.0866             TRAP        2        1

563          KK  SC613
564          KM  Smith Creek 613 Runoff
565          KO                                          22
566          BA  0.1233
567          PB     4.6
568          LS       0       69
569          UD    0.30
```

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

  570          KK  RT613
  571          KM  SMITH CREEK ROUTE 613 TO DP 613
  572          KO                                                    22
  573          RK    2000   0.0360    0.030              TRAP        2         4

  574          KK  SC615B
  575          KM  Smith Creek 615B Runoff
  576          KO                                                    22
  577          BA  0.0313
  578          PB     4.6
  579          LS       0        78
  580          UD   0.160

  581          KK  RES614
  582          KM  EXISTING POND 614
  583          KO                                                    22
  584          RS       1     STOR       -1
  585          SV       0    0.067     0.32     0.67     1.16      1.5
  586          SE    6722     6724     6726     6728     6730     6732
  587          SQ       0        4        6       10     13.3       20
  588          SE    6722     6724     6726     6728     6730     6732

  589          KK  SC617A
  590          KM
  591          KO                                                    22
  592          BA  0.0701
  593          PB     4.6
  594          LS       0       69
  595          UD   0.258

  596          KK  SC615A
  597          KM  SMITH CREEK 615A
  598          KO                                                    22
  599          BA  0.0567
  600          PB     4.6
  601          LS       0       69
  602          UD   0.180

  603          KK  DP613
  604          KM  COMBINE RT612 SC615A SC617A RT613 RES614
  605          KO                                                    22
  606          HC       5

  607          KK  RT614
  608          KM  SMITH CREEK ROUTE 613 TO 617
  609          KO                                                    22
  610          RK    1200    0.022    0.030              TRAP        2         4

  611          KK  SC617B
  612          KM  Smith Creek 617B Runoff
  613          KO                                                    22
  614          BA  0.0215
  615          PB     4.6
  616          LS       0       69
```

```
LINE
ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10
  617           UD   0.228

  618           KK  DP617
  619           KM  Combine RT614 SC617B
  620           KO                                          22
  621           HC       2

  622           KK  RT617
  623           KM  Smith Creek Route 617 to 703
  624           KO                                          22
  625           RK    1470  0.0061   0.085          TRAP       2       1

  626           KK  SC701
  627           KM  Smith Creek 701 Runoff
  628           KO                                          22
  629           BA  0.0722
  630           PB     4.6
  631           LS       0       92
  632           UD   0.360

  633           KK  SC703
  634           KM  Smith Creek 703 Runoff
  635           KO                                          22
  636           BA  0.1305
  637           PB     4.6
  638           LS       0       77
  639           UD   0.092

  640           KK  DP703
  641           KM  Combine RT617 SC701 and SC703
  642           KO                                          22
  643           HC       3

  644           KK  RT703
  645           KM  Smith Creek Route 703 to 705
  646           KO                                          22
  647           RK    2780  0.0338  0.0786          TRAP       3       1

  648           KK  SC705
  649           KM  Smith Creek 705 Runoff
  650           KO                                          22
  651           BA  0.0869
  652           PB     4.6
  653           LS       0       69
  654           UD   0.329

  655           KK  DP705
  656           KM  Combine RT703 and SC705
  657           KO                                          22
  658           HC       2
  659           ZZ
```

HEC1 S/N: 1343001909 HMVersion: 6.33 Data File: C:\WINNT\TEMP\~vbh1324.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	59.	6.00	10.	3.	1.	0.10
	ROUTED TO	RT205	58.	6.00	10.	3.	1.	0.10
	HYDROGRAPH AT	SC207	72.	6.00	13.	4.	2.	0.12
	HYDROGRAPH AT	SC213	77.	6.00	15.	5.	2.	0.12
	3 COMBINED AT	DP213	206.	6.00	39.	13.	4.	0.34
	ROUTED TO	RT213	199.	6.00	39.	13.	4.	0.34
	HYDROGRAPH AT	SC209	65.	6.00	12.	4.	1.	0.14
	HYDROGRAPH AT	SC211	35.	6.00	8.	3.	1.	0.08
	HYDROGRAPH AT	SC215	32.	5.75	6.	2.	1.	0.06
	4 COMBINED AT	DP215	330.	6.00	64.	22.	7.	0.62
	ROUTED TO	RT215	309.	6.00	64.	22.	7.	0.62
	HYDROGRAPH AT	SC219	59.	6.00	12.	4.	1.	0.13
	2 COMBINED AT	DP219	368.	6.00	76.	26.	9.	0.75
	HYDROGRAPH AT	SC201	62.	6.00	12.	4.	1.	0.12
	ROUTED TO	RT201	58.	6.00	12.	4.	1.	0.12
	HYDROGRAPH AT	SC203	57	5.75	10.	3.	1.	0.11
	2 COMBINED AT	DP203	112.	6.00	22.	7.	2.	0.23
	ROUTED TO	RT203	107	6.00	22.	7	2.	0.23
	HYDROGRAPH AT	SC217	30	5.75	5.	2	1.	0.05
	2 COMBINED AT	DP217	133.	6.00	27	9	3.	0.29
	2 COMBINED AT	DP220	501	6.00	102.	35	12	1.03
	ROUTED TO	RT220	490.	6.00	102.	35	12.	1.03
	HYDROGRAPH AT	SC301	73	6.00	13.	4	1.	0.12

HYDROGRAPH AT	SC303	78	6.00	14	5.	2.	0.13
2 COMBINED AT	DP303	150.	6.00	27	9.	3.	0.25
ROUTED TO	RT303	148	6.00	27	9.	3.	0.25
HYDROGRAPH AT	SC305	37	6.00	7	2	1	0.06
2 COMBINED AT	DP305	185.	6.00	33.	11	4.	0.31
ROUTED TO	RT305	176	6.00	33.	11.	4	0.31
HYDROGRAPH AT	SC307	51	6.00	11.	4.	1.	0.11
HYDROGRAPH AT	SC309	68.	6.00	13.	4.	1.	0.12
HYDROGRAPH AT	SC311	65.	6.00	11.	4.	1.	0.11
4 COMBINED AT	DP311	359.	6.00	69.	23.	8.	0.65
ROUTED TO	RT311	322.	6.00	70.	23.	8.	0.65
HYDROGRAPH AT	SC313	84.	6.00	16.	5.	2.	0.15
HYDROGRAPH AT	SC315	51.	6.00	9.	3.	1.	0.09
3 COMBINED AT	DP315	457.	6.00	95.	32.	11.	0.89
2 COMBINED AT	DP316	947.	6.00	198.	67.	22.	1.92
ROUTED TO	RT316	842.	6.00	198.	67.	22.	1.92
HYDROGRAPH AT	SC401	80.	6.00	17.	6.	2.	0.15
2 COMBINED AT	DP401	922.	6.00	215.	73	24.	2.08
ROUTED TO	RT401	901.	6.25	215.	73.	24.	2.08
HYDROGRAPH AT	SC403	67.	6.00	12.	4.	1.	0.10
HYDROGRAPH AT	SC405	39.	6.00	7.	2	1.	0.07
3 COMBINED AT	DP405	1000.	6.00	234	79.	26	2.25
ROUTED TO	RT405	976	6.25	235.	79	27.	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	54.	6.00	10.	3.	1.	0.07
	3 COMBINED AT							
		DP103	205.	6.00	38.	13.	4	0.33
	ROUTED TO							
		RES106	132.	6.25	38.	13	4	0.33
7326.71	6.25							
	ROUTED TO							
		RT103	128.	6.25	38.	13	4.	0.33
	HYDROGRAPH AT							
		SC105B	53.	6.00	9.	3.	1.	0.07
	2 COMBINED AT							
		DP105	164.	6.25	47.	16.	5.	0.40
	ROUTED TO							
		RT105A	161.	6.25	47.	16.	5.	0.40
	HYDROGRAPH AT							
		SC107A	104.	6.00	18.	6.	2.	0.14
	ROUTED TO							
		RES108	114	6.00	18.	6.	2.	0.14
7344.77	6.00							
	2 COMBINED AT							
		DP107A	248.	6.00	65.	22.	7.	0.53
	ROUTED TO							
		RT105B	236.	6.00	65.	22.	7.	0.53
	HYDROGRAPH AT							
		SC107B	31.	6.00	5.	2.	1.	0.04
	2 COMBINED AT							
		DP107B	267.	6.00	71.	23.	8	0.57
	ROUTED TO							
		RT107	249.	6.25	71.	24.	8.	0.57
	HYDROGRAPH AT							
		SC109	111.	6.00	21.	7.	2.	0.16
	2 COMBINED AT							
		DP109	353.	6.00	92.	31.	10.	0.74
	ROUTED TO							
		RT109	345.	6.25	91.	30.	10.	0.74
	HYDROGRAPH AT							
		SC111	140.	6.00	26.	9.	3.	0.19
	2 COMBINED AT							
		DP111	451.	6.25	117.	39.	13.	0.93
	HYDROGRAPH AT							
		SC407	85.	6.00	19.	6.	2.	0.17
	3 COMBINED AT							
		DP407	1507.	6.25	371.	125.	42.	3.34
	ROUTED TO							
		RT407	1494.	6.25	371.	125	42.	3.34
	HYDROGRAPH AT							
		SC501	78.	6.00	14.	5	2.	0.12
	HYDROGRAPH AT							
		SC503	65.	6.00	13.	4.	1.	0.12
	HYDROGRAPH AT							
		SC505	112.	6.00	22.	7	2	0.19
	3 COMBINED AT							
		DP505	255.	6.00	48.	16	5.	0.43

2 COMBINED AT	DP506	1679.	6 25	419.	141.	47	3. 77
ROUTED TO	RT506	1668	6 25	420.	141	47.	3 77
HYDROGRAPH AT	SC507	73	6 00	13.	4.	1	0. 10
2 COMBINED AT	DP507	1704	6. 25	432.	146.	49.	3. 87
ROUTED TO	RT507	1682.	6. 25	433.	146.	49.	3. 87
HYDROGRAPH AT	SC509	107	6. 00	21.	7.	2.	0. 15
2 COMBINED AT	DP509	1770.	6. 25	454.	153.	51.	4. 02
ROUTED TO	RT509	1713.	6. 25	453.	153.	51.	4. 02
HYDROGRAPH AT	SC511	69.	6. 00	12.	4.	1.	0. 09
2 COMBINED AT	DP511	1754.	6. 25	465	157.	53.	4. 11
ROUTED TO	RT511	1738.	6. 25	465.	157.	53.	4. 11
HYDROGRAPH AT	SC601	51.	6. 00	9.	3.	1.	0. 06
ROUTED TO	RT601	49.	6. 00	9.	3.	1.	0. 06
HYDROGRAPH AT	SC603	190.	6. 00	33.	11.	4.	0. 25
2 COMBINED AT	DP603	238.	6. 00	42.	14.	5.	0. 31
2 COMBINED AT	DP604	1886.	6. 25	507.	171	57.	4. 43
ROUTED TO	RT604	1855	6. 25	507.	171.	57.	4. 43
HYDROGRAPH AT	SC605	76.	6. 00	18.	6.	2.	0. 13
HYDROGRAPH AT	SC607	67.	6. 00	12.	4.	1.	0. 08
HYDROGRAPH AT	SC609	109.	6. 00	19.	6.	2.	0. 14
4 COMBINED AT	DP609	2036.	6. 25	556.	187.	63.	4. 78
ROUTED TO	RES610	2010.	6 25	551.	187.	63.	4. 78
6824. 79	6 25						
ROUTED TO	RT610	1937	6. 25	550	187	63	4. 78
HYDROGRAPH AT	SC611	94	5 75	15.	5.	2	0. 11
2 COMBINED AT	DP611	1976	6 25	565.	192	64	4 89
ROUTED TO	RES612	1944.	6 25	563.	192.	64.	4 89

6765 82	6 25						
	ROUTED TO	RT612	1939	6 50	564.	193	65.	4 89
	HYDROGRAPH AT	SC613	99.	6 00	17.	6.	2.	0. 12
	ROUTED TO	RT613	96.	6 00	17.	6.	2.	0. 12
	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	SC617A	56.	6. 00	10.	3.	1.	0. 07
	HYDROGRAPH AT	SC615A	60.	5. 75	8.	3.	1.	0. 06
	5 COMBINED AT	DP613	2016.	6. 50	601.	206.	69.	5 17
	ROUTED TO	RT614	2012.	6. 50	601.	206.	69.	5. 17
	HYDROGRAPH AT	SC617B	19.	5. 75	3.	1.	0.	0. 02
	2 COMBINED AT	DP617	2016.	6. 50	604.	207	69.	5. 19
	ROUTED TO	RT617	1998.	6 50	605.	207.	70.	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	2068.	6. 50	651.	222.	75.	5. 39
	ROUTED TO	RT703	2044.	6. 50	651.	223.	75.	5. 39
	HYDROGRAPH AT	SC705	69.	6. 00	12.	4.	1.	0. 09
	2 COMBINED AT	DP705	2069	6. 50	663.	227.	76.	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	1.23	58.18	361.75	1.33	15.00	57.72	360.00	1.34

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.6865E+01 EXCESS=0.0000E+00 OUTFLOW=0.6866E+01 BASIN STORAGE= 0.5674E-09 PERCENT ERROR= 0.0

	RT213	MANE	0.83	204.99	361.75	1.40	15.00	199.25	360.00	1.41

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.2551E+02 EXCESS=0.0000E+00 OUTFLOW=0.2552E+02 BASIN STORAGE= 0.2631E-08 PERCENT ERROR= 0.0

	RT215	MANE	1.30	328.59	362.54	1.30	15.00	308.58	360.00	1.31

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.4265E+02 EXCESS=0.0000E+00 OUTFLOW=0.4266E+02 BASIN STORAGE= 0.2103E-07 PERCENT ERROR= 0.0

	RT201	MANE	1.14	61.88	362.11	1.20	15.00	58.38	360.00	1.20

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.7770E+01 EXCESS=0.0000E+00 OUTFLOW=0.7773E+01 BASIN STORAGE= 0.8793E-09 PERCENT ERROR= 0.0

	RT203	MANE	1.44	110.71	363.08	1.17	15.00	107.25	360.00	1.18

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1454E+02 EXCESS=0.0000E+00 OUTFLOW=0.1454E+02 BASIN STORAGE= 0.7662E-08 PERCENT ERROR= 0.0

	RT220	MANE	0.43	500.10	360.94	1.25	15.00	489.55	360.00	1.25

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.6864E+02 EXCESS=0.0000E+00 OUTFLOW=0.6864E+02 BASIN STORAGE= 0.2036E-07 PERCENT ERROR= 0.0

	RT303	MANE	0.61	149.45	360.89	1.33	15.00	147.50	360.00	1.33

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1766E+02 EXCESS=0.0000E+00 OUTFLOW=0.1767E+02 BASIN STORAGE= 0.1760E-09 PERCENT ERROR= 0.0

	RT305	MANE	1.34	182.61	362.25	1.33	15.00	175.84	360.00	1.34

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.2218E+02 EXCESS=0.0000E+00 OUTFLOW=0.2219E+02 BASIN STORAGE= 0.5452E-08 PERCENT ERROR= 0.0

	RT311	MANE	1.90	358.41	363.85	1.33	15.00	321.82	360.00	1.34

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.4624E+02 EXCESS=0.0000E+00 OUTFLOW=0.4625E+02 BASIN STORAGE=
0.8217E-07 PERCENT ERROR= 0.0

	RT316	MANE	1.91	943.40	363.90	1.29	15.00	841.71	360.00
1.29									

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1322E+03 EXCESS=0.0000E+00 OUTFLOW=0.1322E+03 BASIN STORAGE=
0.4855E-06 PERCENT ERROR= 0.0

	RT401	MANE	0.56	921.06	361.27	1.30	15.00	901.02	375.00
1.30									

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1440E+03 EXCESS=0.0000E+00 OUTFLOW=0.1440E+03 BASIN STORAGE=
0.1718E-06 PERCENT ERROR= 0.0

	RT405	MANE	1.31	997.61	363.69	1.31	15.00	976.09	375.00
1.32									

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1569E+03 EXCESS=0.0000E+00 OUTFLOW=0.1570E+03 BASIN STORAGE=
0.7645E-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	0.75	131.90	376.69	1.44	15.00	128.43	375.00
1.44									

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.2513E+02 EXCESS=0.0000E+00 OUTFLOW=0.2513E+02 BASIN STORAGE=
0.4164E-08 PERCENT ERROR= 0.0

	RT105A	MANE	0.89	163.05	376.64	1.48	15.00	161.26	375.00
1.48									

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.3128E+02 EXCESS=0.0000E+00 OUTFLOW=0.3129E+02 BASIN STORAGE=
0.8182E-08 PERCENT ERROR= 0.0

	RT105B	MANE	0.76	247.44	361.68	1.51	15.00	236.33	360.00
1.51									

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.4301E+02 EXCESS=0.0000E+00 OUTFLOW=0.4301E+02 BASIN STORAGE=
0.1619E-07 PERCENT ERROR= 0.0

	RT107	MANE	1.41	265.86	363.83	1.52	15.00	249.09	375.00
1.52									

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.4658E+02 EXCESS=0.0000E+00 OUTFLOW=0.4658E+02 BASIN STORAGE=
0.6769E-07 PERCENT ERROR= 0.0

	RT109	MANE	3.26	353.17	366.53	1.54	15.00	344.65	375.00
1.54									

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.6068E+02 EXCESS=0.0000E+00 OUTFLOW=0.6063E+02 BASIN STORAGE=
0.8571E-06 PERCENT ERROR= 0.1

	RT407	MANE	1.00	1499.89	376.57	1.39	15.00	1494.26	375.00
1.39									

CONTINUITY SUMMARY (AC-FT) - INFLOW=0 2474E+03 EXCESS=0 0000E+00 OUTFLOW=0. 2474E+03 BASIN STORAGE=
0. 1277E-05 PERCENT ERROR= 0. 0

RT506 MANE 0. 81 1672 87 375. 94 1. 39 15. 00 1667 50 375. 00
1. 39

CONTINUITY SUMMARY (AC-FT) - INFLOW=0 2799E+03 EXCESS=0 0000E+00 OUTFLOW=0. 2799E+03 BASIN STORAGE=
0. 1740E-05 PERCENT ERROR= 0. 0

RT507 MANE 1. 06 1699. 66 376. 71 1. 40 15. 00 1681. 84 375. 00
1. 40

CONTINUITY SUMMARY (AC-FT) - INFLOW=0. 2887E+03 EXCESS=0 0000E+00 OUTFLOW=0. 2887E+03 BASIN STORAGE=
0. 3761E-05 PERCENT ERROR= 0. 0

RT509 MANE 1. 66 1763. 67 378. 57 1 41 15. 00 1713. 38 375. 00
1. 42

CONTINUITY SUMMARY (AC-FT) - INFLOW=0. 3031E+03 EXCESS=0. 0000E+00 OUTFLOW=0. 3030E+03 BASIN STORAGE=
0. 8839E-05 PERCENT ERROR= 0. 0

RT511 MANE 0. 32 1751. 92 375. 59 1. 42 15. 00 1737. 56 375. 00
1. 42

CONTINUITY SUMMARY (AC-FT) - INFLOW=0. 3118E+03 EXCESS=0. 0000E+00 OUTFLOW=0. 3118E+03 BASIN STORAGE=
0. 2254E-05 PERCENT ERROR= 0. 0

RT601 MANE 1. 47 50. 22 362. 19 1. 67 15. 00 48. 79 360. 00
1. 68

CONTINUITY SUMMARY (AC-FT) - INFLOW=0. 5645E+01 EXCESS=0. 0000E+00 OUTFLOW=0. 5646E+01 BASIN STORAGE=
0. 1650E-08 PERCENT ERROR= 0. 0

RT604 MANE 0 77 1882. 70 376. 47 1. 44 15. 00 1855 45 375. 00
1. 44

CONTINUITY SUMMARY (AC-FT) - INFLOW=0. 3393E+03 EXCESS=0. 0000E+00 OUTFLOW=0. 3393E+03 BASIN STORAGE=
0. 6014E-05 PERCENT ERROR= 0. 0

RT610 MANE 1. 74 1996. 05 379. 46 1. 46 15. 00 1936. 86 375. 00
1. 46

CONTINUITY SUMMARY (AC-FT) - INFLOW=0. 3713E+03 EXCESS=0. 0000E+00 OUTFLOW=0. 3712E+03 BASIN STORAGE=
0. 2228E-04 PERCENT ERROR= 0. 0

RT612 MANE 1. 13 1943. 72 377. 47 1. 47 15. 00 1939. 32 390. 00
1. 47

CONTINUITY SUMMARY (AC-FT) - INFLOW=0. 3821E+03 EXCESS=0. 0000E+00 OUTFLOW=0. 3822E+03 BASIN STORAGE=
0. 2232E-04 PERCENT ERROR= 0. 0

RT613 MANE 1. 16 98. 22 362 26 1. 67 15. 00 96. 27 360. 00
1. 68

CONTINUITY SUMMARY (AC-FT) - INFLOW=0. 1100E+02 EXCESS=0. 0000E+00 OUTFLOW=0. 1100E+02 BASIN STORAGE=
0. 1680E-08 PERCENT ERROR= 0. 0

RT614 MANE 0 43 2013 18 390 56 1 48 15. 00 2011 67 390. 00
1. 49

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.4094E+03 EXCESS=0.0000E+00 OUTFLOW=0.4094E+03 BASIN STORAGE=
0.7427E-05 PERCENT ERROR= 0.0

RT617 MANE 1.15 2013.10 392.42 1.49 15.00 1998.39 390.00
1.49

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.4116E+03 EXCESS=0.0000E+00 OUTFLOW=0.4116E+03 BASIN STORAGE=
0.3633E-04 PERCENT ERROR= 0.0

RT703 MANE 1.11 2062.80 391.89 1.54 15.00 2044.09 390.00
1.54

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.4425E+03 EXCESS=0.0000E+00 OUTFLOW=0.4425E+03 BASIN STORAGE=
0.5468E-04 PERCENT ERROR= 0.0

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

2 year future-Alternate 1
HEC1 S/N: 1343001909 HMVersion 6.33 Data File: C:\WINNT\TEMP\~vbh0416.TMP

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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  06/19/2001  TIME  16:12:29 *
(916) 756-1104              *
*                                      *
*                                      *
****************************************
****************************************
```

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

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

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

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

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.

THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION.

NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,

DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION

KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

HEC-1 INPUT

```
         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
         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
```

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

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

225         KK  SC401
226         KM  Smith Creek 401 Runoff
227         KO                                        22
228         BA  0.1524
229         PB       2
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       2
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       2
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       2
267         LS       0       64
268         UD   0.353
```

```
LINE
ID.....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       2
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       2
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       2
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       2
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       2
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

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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       2
  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       2
  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       2
  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
```

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

397         KK  SC501
398         KM  Smith Creek 501 Runoff
399         KO                                          22
400         BA  0.1219
401         PB       2
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       2
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       2
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       2
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       2
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       2
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       2
480          LS       0       69
481          UD   0.210
```

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ID.. LINE 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       2
 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       2
 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       2
 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

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LINE
ID.....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       2
  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       2
  546          LS       0       75
  547          UD   0.252

  548          KK  DP610
  549          KM  COMBINE RES 610 RES 605 AND RT605
  550          KO                                          22
  551          HC       3

  552          KK  RT610
  553          KM  Smith Creek Route 610 to 611
  554          KO                                          22
  555          RK    3200  0.0226   0.090                TRAP        2        1

  556          KK  SC611
  557          KM  Smith Creek 611 Runoff
  558          KO                                          22
  559          BA  0.1095
  560          PB       2
  561          LS       0       69
  562          UD   0.149

  563          KK  DP611
  564          KM  Combine RT610 and SC611
  565          KO                                          22
  566          HC       2
```

HEC-1 INPUT

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

567         KK  RES612
568         KM  Smith Creek Reservoir Route 612
569         KO                                          22
570         RS       1     STOR      -1
571         SA    1.82     2.77     3.72      4.5     5.28     5.78
572         SE    6762     6763     6764     6765     6766   6766.5
573         SQ       0      150      510     1160     2120     2680

574         KK  RT612
575         KM  Smith Creek Route 612 to 617
576         KO                                          22
577         RK    2250   0.0240   0.0866              TRAP        2         1

578         KK  SC613
579         KM  Smith Creek 613 Runoff
580         KO                                          22
581         BA  0.1233
582         PB       2
583         LS       0       69
584         UD    0.30

585         KK  RT618
586         KM  SMITH CREEK ROUTE 613 TO DP618
587         KO                                          22
588         RK    1100    0.030    0.013              TRAP        2         2

589         KK  SC617A
590         KM
591         KO                                          22
592         BA  0.0149
593         PB       2
594         LS       0       73
595         UD   0.162

596         KK  SC618
597         KM  SMITH CREEK 618 RUNOFF
598         KO                                          22
599         BA   0.007
600         PB       2
601         LS       0       73
602         UD    0.15

603         KK  DP618
604         KM  COMBINE RES 613 RES 618 AND RT618
605         KO                                          22
606         HC       3

607         KK  SC615B
608         KM  Smith Creek 615B Runoff
609         KO                                          22
610         BA  0.0313
611         PB       2
612         LS       0       78
613         UD   0.160
```

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

 614          KK  RES614
 615          KM  EXISTING POND 614
 616          KO                                              22
 617          RS       1     STOR       -1
 618          SV       0    0.067     0.32     0.67     1.16      1.5
 619          SE    6722     6724     6726     6728     6730     6732
 620          SQ       0        4        6       10     13.3       15
 621          SE    6722     6724     6726     6728     6730     6732

 622          KK  SC615A
 623          KM  SMITH CREEK 615A
 624          KO                                              22
 625          BA  0.0567
 626          PB       2
 627          LS       0       74
 628          UD    0.18

 629          KK  RES615
 630          KM  SMITH CREEK RESEVOIR ROUTE 615
 631          KO                                              22
 632          RS       1     STOR       -1
 633          SV       0        1        2      2.5
 634          SE    6726     6728     6730     6732
 635          SQ       0        5       10     16.7
 636          SE    6724     6726     6728     6729

 637          KK  SC617C
 638          KM  SMITH CREEK 617C Runoff
 639          KO                                              22
 640          BA   .0482
 641          PB       2
 642          LS       0       65
 643          UD     .17

 644          KK  DP613
 645          KM  COMBINE DP 618 RES 615 RES 614 SC 617C AND RT 612
 646          KO                                              22
 647          HC       5

 648          KK  RT614
 649          KM  SMITH CREEK ROUTE 613 TO 617
 650          KO                                              22
 651          RK    1200    0.022    0.030                TRAP        2        4

 652          KK  SC617B
 653          KM  Smith Creek 617B Runoff
 654          KO                                              22
 655          BA  0.0215
 656          PB       2
 657          LS       0       69
 658          UD   0.228
```

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

659          KK  DP617
660          KM  Combine RT614 AND SC617B
661          KO                                                22
662          HC       2

663          KK  RT617
664          KM  Smith Creek Route 617 to 703
665          KO                                                22
666          RK    1470  0.0061    0.085                TRAP        2         1

667          KK  SC701
668          KM  Smith Creek 701 Runoff
669          KO                                                22
670          BA  0.0722
671          PB       2
672          LS       0       92
673          UD   0.360

674          KK  SC703
675          KM  Smith Creek 703 Runoff
676          KO                                                22
677          BA  0.1305
678          PB       2
679          LS       0       77
680          UD   0.092

681          KK  DP703
682          KM  Combine RT617 SC701 and SC703
683          KO                                                22
684          HC       3

685          KK  RT703
686          KM  Smith Creek Route 703 to 705
687          KO                                                22
688          RK    2780  0.0338  0.0786                 TRAP        3         1

689          KK  SC705
690          KM  Smith Creek 705 Runoff
691          KO                                                22
692          BA  0.0869
693          PB       2
694          LS       0       69
695          UD   0.329

696          KK  DP705
697          KM  Combine RT703 and SC705
698          KO                                                22
699          HC       2
700          ZZ
```

HEC1 S/N: 1343001909 HMVersion: 6.33 Data File: C:\WINNT\TEMP\~vbh0416.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	RT316	51	6.50	19.	8.	3.	1.92
HYDROGRAPH AT	SC401	7.	6.00	2.	1.	0.	0.15
2 COMBINED AT	DP401	56.	6.25	21.	9.	3.	2.08
ROUTED TO	RT401	55.	6.50	21.	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	60.	6.50	23.	10.	3.	2.25
ROUTED TO	RT405	60.	6.50	23.	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	95.	6. 50	36.	16.	5.	3 34
	ROUTED TO							
		RT407	93.	6. 50	36.	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	105	6.50	42.	18.	6	3.77
ROUTED TO	RT506	103.	6.50	42.	18.	6	3.77
HYDROGRAPH AT	SC507	5.	6.00	1	1	0	0.10
2 COMBINED AT	DP507	105.	6.50	43.	18.	6.	3.87
ROUTED TO	RT507	101.	6.75	43.	18.	6	3.87
HYDROGRAPH AT	SC509	6.	6.00	2.	1.	0	0.15
2 COMBINED AT	DP509	105.	6.75	45.	19.	6.	4.02
ROUTED TO	RT509	105.	6.75	44.	19.	6	4.02
HYDROGRAPH AT	SC511	5.	6.00	1.	0.	0.	0.09
2 COMBINED AT	DP511	107.	6.75	45.	20.	7.	4.11
ROUTED TO	RT511	106.	6.75	45.	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	112.	6.75	49.	21.	7	4.43
ROUTED TO	RT604	110.	6.75	49.	21.	7.	4.43
HYDROGRAPH AT	SC607	5.	6.00	1.	0.	0	0.08
HYDROGRAPH AT	SC609	8.	6.00	2.	1.	0.	0.14
3 COMBINED AT	DP609	115.	6.75	52.	23.	8	4.65
ROUTED TO	RES610	127.	6.75	49.	22.	8.	4.65

6823.17 6 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
3 COMBINED AT	DP610	131.	6.75	51.	23.	8	4.78
ROUTED TO	RT610	120.	7.00	50.	23.	8	4.78

	HYDROGRAPH AT	SC611	10	5.75	2.	1.	0.	0.11
	2 COMBINED AT	DP611	121	7.00	51.	24.	8.	4.89
	ROUTED TO	RES612	113.	7.25	51.	24	8.	4.89
6762.75	7.25							
	ROUTED TO	RT612	110.	7.25	51.	24.	8.	4.89
	HYDROGRAPH AT	SC613	8.	6.00	2	1.	0.	0.12
	ROUTED TO	RT618	7.	6.00	2.	1.	0.	0.12
	HYDROGRAPH AT	SC617A	2	5.75	0.	0.	0.	0.01
	HYDROGRAPH AT	SC618	1.	5.75	0.	0.	0.	0.01
	3 COMBINED AT	DP618	9.	6.00	2.	1.	0.	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	115.	7.25	55.	26.	9.	5.17
	ROUTED TO	RT614	113.	7.25	55.	26.	9.	5.17
	HYDROGRAPH AT	SC617B	1.	6.00	0.	0.	0.	0.02
	2 COMBINED AT	DP617	113.	7.25	55.	26.	9.	5.19
	ROUTED TO	RT617	113.	7.50	55.	26.	9.	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	120	7.50	65.	30.	10.	5.39
	ROUTED TO	RT703	118	7.50	65.	30.	10.	5.39
	HYDROGRAPH AT	SC705	5	6.00	1.	1.	0.	0.09
	2 COMBINED AT							

DP705	119.	7.50	66	30	10.	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 3.76 54.50 382.98 0.16 15.00 50.93 390.00
0.16

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1614E+02 EXCESS=0.0000E+00 OUTFLOW=0.1613E+02 BASIN STORAGE=
0.4072E-06 PERCENT ERROR= 0.1

RT401 MANE 0.89 56.05 377.60 0.16 15.00 55.46 390.00
0.16

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1768E+02 EXCESS=0.0000E+00 OUTFLOW=0.1768E+02 BASIN STORAGE=
0.1767E-06 PERCENT ERROR= 0.0

RT405 MANE 2.57 59.86 393.07 0.16 15.00 59.69 390.00
0.16

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1945E+02 EXCESS=0.0000E+00 OUTFLOW=0.1945E+02 BASIN STORAGE=
0.8777E-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

RT407 MANE 1.82 94.73 393.09 0.17 15.00 93.04 390.00
0.17

CONTINUITY SUMMARY (AC-FT) - INFLOW=0 3076E+02 EXCESS=0.0000E+00 OUTFLOW=0.3075E+02 BASIN STORAGE=
0.1245E-05 PERCENT ERROR= 0.0

RT506 MANE 1.48 105.03 392.72 0 18 15.00 102.92 390.00
0 18

CONTINUITY SUMMARY (AC-FT) - INFLOW=0 3528E+02 EXCESS=0.0000E+00 OUTFLOW=0.3527E+02 BASIN STORAGE=
0.1598E-05 PERCENT ERROR= 0.0

RT507 MANE 2.15 105.03 394.18 0 18 15.00 101.43 405.00
0.18

CONTINUITY SUMMARY (AC-FT) - INFLOW=0 3631E+02 EXCESS=0.0000E+00 OUTFLOW=0.3630E+02 BASIN STORAGE=
0.3887E-05 PERCENT ERROR= 0.0

RT509 MANE 3.48 104.93 411.26 0 18 15.00 104.77 405.00
0.18

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.3788E+02 EXCESS=0.0000E+00 OUTFLOW=0.3786E+02 BASIN STORAGE=
0.9906E-05 PERCENT ERROR= 0.1

RT511 MANE 0.66 106.57 406.42 0.18 15.00 105.71 405.00
0.18

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.3875E+02 EXCESS=0.0000E+00 OUTFLOW=0.3875E+02 BASIN STORAGE=
0.2221E-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 1.57 112.02 408.35 0.18 15.00 110.02 405.00
0.18

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.4212E+02 EXCESS=0.0000E+00 OUTFLOW=0.4211E+02 BASIN STORAGE=
0.5879E-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 3.28 128.47 413.39 0.18 15.00 119.56 420.00
0.18

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.4683E+02 EXCESS=0.0000E+00 OUTFLOW=0.4681E+02 BASIN STORAGE=
0.2439E-04 PERCENT ERROR= 0.0

RT612 MANE 2.41 112.34 439.08 0.18 15.00 109.78 435.00
0.18

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.4805E+02 EXCESS=0.0000E+00 OUTFLOW=0.4805E+02 BASIN STORAGE=
0.2181E-04 PERCENT ERROR= 0.0

RT618 MANE 0.62 7.54 360.98 0.22 15.00 7.37 360.00
0.22

```
CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1426E+01 EXCESS=0.0000E+00 OUTFLOW=0.1426E+01 BASIN STORAGE=
0.2890E-10 PERCENT ERROR=    0.0

            RT614    MANE          0.80     114.41     437.28       0.19      15.00     112.77     435.00
0.19

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.5207E+02 EXCESS=0.0000E+00 OUTFLOW=0.5207E+02 BASIN STORAGE=
0.7208E-05 PERCENT ERROR=    0.0

            RT617    MANE          2.55     113.05     440.35       0.19      15.00     112.81     450.00
0.19

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.5234E+02 EXCESS=0.0000E+00 OUTFLOW=0.5234E+02 BASIN STORAGE=
0.3250E-04 PERCENT ERROR=    0.0

            RT703    MANE          2.31     119.56     454.48       0.21      15.00     118.01     450.00
0.21

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.6021E+02 EXCESS=0.0000E+00 OUTFLOW=0.6019E+02 BASIN STORAGE=
0.5134E-04 PERCENT ERROR=    0.0



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

5 year future-Alternate 1
HEC1 S/N: 1343001909 HMVersion: 6.33 Data File: C:\WINNT\TEMP\~vbh2802.TMP

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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  06/19/2001  TIME  16:12:04 *
(916) 756-1104              *
*                                       *
*                                       *
*****************************************
*****************************************
```

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

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

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

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

THE DEFINITIONS OF VARIABLES -RTIMP- AND -RTIOR- HAVE CHANGED FROM THOSE USED WITH THE 1973-STYLE INPUT STRUCTURE.

THE DEFINITION OF -AMSKK- ON RM-CARD WAS CHANGED WITH REVISIONS DATED 28 SEP 81. THIS IS THE FORTRAN77 VERSION

NEW OPTIONS: DAMBREAK OUTFLOW SUBMERGENCE , SINGLE EVENT DAMAGE CALCULATION, DSS:WRITE STAGE FREQUENCY,

DSS:READ TIME SERIES AT DESIRED CALCULATION INTERVAL LOSS RATE:GREEN AND AMPT INFILTRATION

KINEMATIC WAVE: NEW FINITE DIFFERENCE ALGORITHM

HEC-1 INPUT

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

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

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
```

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

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
```

```
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

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

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  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

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

  225          KK  SC401
  226          KM  Smith Creek 401 Runoff
  227          KO                                          22
  228          BA  0.1524
  229          PB     2.6
  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     2.6
  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     2.6
  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     2.6
  267          LS       0       64
  268          UD   0.353
```

```
LINE
ID.....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     2.6
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     2.6
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     2.6
308          LS       0       69
309          UD   0.345

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

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

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    2.6
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    2.6
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

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LINE
ID.....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     2.6
  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     2.6
  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     2.6
  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
```

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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     2.6
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     2.6
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     2.6
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     2.6
435         LS       0       68
436         UD   0.229

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

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

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     2.6
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     2.6
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     2.6
480         LS       0       69
481         UD   0.210
```

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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     2.6
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     2.6
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     2.6
517         LS       0       69
518         UD   0.326

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

```
ID.....1   LINE  ...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     2.6
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     2.6
546          LS       0       75
547          UD   0.252

548          KK  DP610
549          KM  COMBINE RES 610 RES 605 AND RT605
550          KO                                                22
551          HC       3

552          KK  RT610
553          KM  Smith Creek Route 610 to 611
554          KO                                                22
555          RK    3200  0.0226   0.090                  TRAP       2        1

556          KK  SC611
557          KM  Smith Creek 611 Runoff
558          KO                                                22
559          BA  0.1095
560          PB     2.6
561          LS       0       69
562          UD   0.149

563          KK  DP611
564          KM  Combine RT610 and SC611
565          KO                                                22
566          HC       2
```

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

567          KK  RES612
568          KM  Smith Creek Reservoir Route 612
569          KO                                          22
570          RS       1     STOR      -1
571          SA    1.82     2.77     3.72      4.5     5.28     5.78
572          SE    6762     6763     6764     6765     6766   6766.5
573          SQ       0      150      510     1160     2120     2680

574          KK  RT612
575          KM  Smith Creek Route 612 to 617
576          KO                                          22
577          RK    2250   0.0240   0.0866             TRAP        2        1

578          KK  SC613
579          KM  Smith Creek 613 Runoff
580          KO                                          22
581          BA  0.1233
582          PB     2.6
583          LS       0       69
584          UD    0.30

585          KK  RT618
586          KM  SMITH CREEK ROUTE 613 TO DP618
587          KO                                          22
588          RK    1100    0.030    0.013             TRAP        2        2

589          KK  SC617A
590          KM
591          KO                                          22
592          BA  0.0149
593          PB     2.6
594          LS       0       73
595          UD   0.162

596          KK  SC618
597          KM  SMITH CREEK 618 RUNOFF
598          KO                                          22
599          BA   0.007
600          PB     2.6
601          LS       0       73
602          UD    0.15

603          KK  DP618
604          KM  COMBINE RES 613 RES 618 AND RT618
605          KO                                          22
606          HC       3

607          KK  SC615B
608          KM  Smith Creek 615B Runoff
609          KO                                          22
610          BA  0.0313
611          PB     2.6
612          LS       0       78
613          UD   0.160
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         LINE
ID.....1.....2.....3.....4.....5.....6.....7.....8.....9.....10

          614          KK  RES614
          615          KM  EXISTING POND 614
          616          KO                                          22
          617          RS       1     STOR       -1
          618          SV       0    0.067     0.32     0.67     1.16      1.5
          619          SE    6722     6724     6726     6728     6730     6732
          620          SQ       0        4        6       10     13.3       15
          621          SE    6722     6724     6726     6728     6730     6732

          622          KK  SC615A
          623          KM  SMITH CREEK 615A
          624          KO                                          22
          625          BA  0.0567
          626          PB     2.6
          627          LS       0       74
          628          UD    0.18

          629          KK  RES615
          630          KM  SMITH CREEK RESEVOIR ROUTE 615
          631          KO                                          22
          632          RS       1     STOR       -1
          633          SV       0        1        2      2.5
          634          SE    6726     6728     6730     6732
          635          SQ       0        5       10     16.7
          636          SE    6724     6726     6728     6729

          637          KK  SC617C
          638          KM  SMITH CREEK 617C Runoff
          639          KO                                          22
          640          BA   .0482
          641          PB     2.6
          642          LS       0       65
          643          UD     .17

          644          KK  DP613
          645          KM  COMBINE DP 618 RES 615 RES 614 SC 617C AND RT 612
          646          KO                                          22
          647          HC       5

          648          KK  RT614
          649          KM  SMITH CREEK ROUTE 613 TO 617
          650          KO                                          22
          651          RK    1200    0.022    0.030             TRAP        2         4

          652          KK  SC617B
          653          KM  Smith Creek 617B Runoff
          654          KO                                          22
          655          BA  0.0215
          656          PB     2.6
          657          LS       0       69
          658          UD   0.228
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HEC-1 INPUT

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ID.  LINE  1....  2....  3....  4....  5....  6....  7....  8....  9....  10
     659   KK  DP617
     660   KM  Combine RT614 AND SC617B
     661   KO                                                  22
     662   HC       2

     663   KK  RT617
     664   KM  Smith Creek Route 617 to 703
     665   KO                                                  22
     666   RK    1470  0.0061    0.085            TRAP        2         1

     667   KK  SC701
     668   KM  Smith Creek 701 Runoff
     669   KO                                                  22
     670   BA  0.0722
     671   PB     2.6
     672   LS       0       92
     673   UD   0.360

     674   KK  SC703
     675   KM  Smith Creek 703 Runoff
     676   KO                                                  22
     677   BA  0.1305
     678   PB     2.6
     679   LS       0       77
     680   UD   0.092

     681   KK  DP703
     682   KM  Combine RT617 SC701 and SC703
     683   KO                                                  22
     684   HC       3

     685   KK  RT703
     686   KM  Smith Creek Route 703 to 705
     687   KO                                                  22
     688   RK    2780  0.0338  0.0786            TRAP        3         1

     689   KK  SC705
     690   KM  Smith Creek 705 Runoff
     691   KO                                                  22
     692   BA  0.0869
     693   PB     2.6
     694   LS       0       69
     695   UD   0.329

     696   KK  DP705
     697   KM  Combine RT703 and SC705
     698   KO                                                  22
     699   HC       2
     700   ZZ
```

HEC1 S/N 1343001909 HMVersion: 6.33 Data File: C:\WINNT\TEMP\~vbh2802.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	RT316	188.	6.25	51.	19.	6.	1.92
HYDROGRAPH AT	SC401	22.	6.00	5.	2.	1.	0.15
2 COMBINED AT	DP401	206.	6.25	56.	21.	7.	2.08
ROUTED TO	RT401	203.	6.25	56.	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	220.	6.25	61.	23.	8.	2.25
ROUTED TO	RT405	211.	6.25	61.	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	329.	6 25	95.	36.	12.	3. 34
ROUTED TO							
	RT407	312.	6. 25	95.	36.	12.	3. 34
HYDROGRAPH AT							
	SC501	20.	6 00	4.	1.	0.	0. 12
HYDROGRAPH 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	361	6 25	108.	41.	14.	3 77
ROUTED TO	RT506	348.	6 25	109.	41.	14.	3 77
HYDROGRAPH AT	SC507	15	6. 00	3.	1.	0.	0 10
2 COMBINED AT	DP507	356.	6. 25	111	42.	14.	3 87
ROUTED TO	RT507	343.	6. 50	112.	42.	14.	3. 87
HYDROGRAPH AT	SC509	20.	6 00	5.	2.	1.	0 15
2 COMBINED AT	DP509	355.	6. 50	116.	44.	15.	4. 02
ROUTED TO	RT509	354.	6. 50	116.	44.	15.	4. 02
HYDROGRAPH AT	SC511	15.	6. 00	3.	1.	0.	0:09
2 COMBINED AT	DP511	360.	6. 50	119.	45.	15.	4. 11
ROUTED TO	RT511	357.	6. 50	119.	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	377.	6. 50	128.	49.	16.	4. 43
ROUTED TO	RT604	372.	6. 50	128.	49.	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	388.	6. 50	136.	52.	17	4. 65
ROUTED TO	RES610	374	6. 75	132.	51.	17.	4. 65
6823. 53	6. 75						
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
3 COMBINED AT	DP610	383	6. 25	137.	53.	18.	4 78
ROUTED TO	RT610	380	6. 75	137.	53.	18.	4 78

	HYDROGRAPH AT	SC611	29.	5.75	4.	1.	0.	0.11
	2 COMBINED AT	DP611	384.	6.75	140.	55.	18.	4.89
	ROUTED TO	RES612	386.	6.75	139.	55.	18.	4.89
6763.66	6.75							
	ROUTED TO	RT612	378.	6.75	139.	55.	18.	4.89
	HYDROGRAPH AT	SC613	22.	6.00	4.	2.	1.	0.12
	ROUTED TO	RT618	22.	6.00	4.	2.	1.	0.12
	HYDROGRAPH AT	SC617A	6.	5.75	1.	0.	0.	0.01
	HYDROGRAPH AT	SC618	3.	5.75	0.	0.	0.	0.01
	3 COMBINED AT	DP618	26.	6.00	5.	2.	1.	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	399.	6.75	149.	59.	20.	5.17
	ROUTED TO	RT614	394.	6.75	149.	59.	20.	5.17
	HYDROGRAPH AT	SC617B	4.	6.00	1.	0.	0.	0.02
	2 COMBINED AT	DP617	395.	6.75	149.	59.	20	5.19
	ROUTED TO	RT617	387.	7.00	149.	59	20.	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	401.	7.00	167.	65.	22.	5.39
	ROUTED TO	RT703	401.	7.00	166.	65.	22	5.39
	HYDROGRAPH AT	SC705	15.	6.00	3.	1.	0.	0.09
	2 COMBINED AT							

DP705	404	7.00	169.	66	22.	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 2.76 191.52 365.76 0.37 15.00 187.66 375.00
0.37

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.3820E+02 EXCESS=0.0000E+00 OUTFLOW=0.3817E+02 BASIN STORAGE=
0.4957E-06 PERCENT ERROR= 0.1

RT401 MANE 0.59 205.39 376.05 0.38 15.00 202.79 375.00
0.38

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.4160E+02 EXCESS=0.0000E+00 OUTFLOW=0.4161E+02 BASIN STORAGE=
0.1758E-06 PERCENT ERROR= 0.0

RT405 MANE 1.94 218.80 379.15 0.38 15.00 210.63 375.00
0.38

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.4556E+02 EXCESS=0.0000E+00 OUTFLOW=0.4555E+02 BASIN STORAGE=
0.7613E-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

RT407 MANE 1.40 326.34 378.56 0.40 15.00 312.28 375.00
0.40

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.7076E+02 EXCESS=0.0000E+00 OUTFLOW=0.7077E+02 BASIN STORAGE=
0.1291E-05 PERCENT ERROR= 0.0

	RT506	MANE	1.00	360.48	377.09	0.40	15.00	347.60	375.00
0.40									

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.8093E+02 EXCESS=0.0000E+00 OUTFLOW=0.8093E+02 BASIN STORAGE=
0.1725E-05 PERCENT ERROR= 0.0

	RT507	MANE	1.64	354.11	379.68	0.40	15.00	342.93	390.00
0.40									

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.8331E+02 EXCESS=0.0000E+00 OUTFLOW=0.8332E+02 BASIN STORAGE=
0.3608E-05 PERCENT ERROR= 0.0

	RT509	MANE	2.61	354.25	392.13	0.41	15.00	353.72	390.00
0.41									

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.8698E+02 EXCESS=0.0000E+00 OUTFLOW=0.8693E+02 BASIN STORAGE=
0.8666E-05 PERCENT ERROR= 0.1

	RT511	MANE	0.55	359.26	391.12	0.41	15.00	357.12	390.00
0.41									

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.8903E+02 EXCESS=0.0000E+00 OUTFLOW=0.8903E+02 BASIN STORAGE=
0.2215E-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	1.07	376.18	392.61	0.41	15.00	371.91	390.00
0.41									

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.9651E+02 EXCESS=0.0000E+00 OUTFLOW=0.9651E+02 BASIN STORAGE=
0.5976E-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	2.53	382.31	380.04	0.42	15.00	379.63	405.00
0.42									

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1064E+03 EXCESS=0.0000E+00 OUTFLOW=0.1063E+03 BASIN STORAGE=
0.2193E-04 PERCENT ERROR= 0.0

	RT612	MANE	1.71	385.92	408.42	0.42	15.00	378.10	405.00
0.42									

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1091E+03 EXCESS=0.0000E+00 OUTFLOW=0.1091E+03 BASIN STORAGE=
0.2352E-04 PERCENT ERROR= 0.0

	RT618	MANE	0.52	22.25	360.62	0.47	15.00	21.98	360.00
0.47									

CONTINUITY SUMMARY (AC-FT) - INFLOW=0 3073E+01 EXCESS=0.0000E+00 OUTFLOW=0.3074E+01 BASIN STORAGE=
0.2683E-10 PERCENT ERROR= 0.0

RT614 MANE 0 64 398 51 406.45 0.43 15 00 394.31 405.00
0.43

CONTINUITY SUMMARY (AC-FT) - INFLOW=0 1173E+03 EXCESS=0.0000E+00 OUTFLOW=0.1173E+03 BASIN STORAGE=
0.7281E-05 PERCENT ERROR= 0.0

RT617 MANE 1.82 394.48 409.47 0.43 15.00 386.60 420.00
0.43

CONTINUITY SUMMARY (AC-FT) - INFLOW=0.1179E+03 EXCESS=0.0000E+00 OUTFLOW=0 1179E+03 BASIN STORAGE=
0.3216E-04 PERCENT ERROR= 0.0

RT703 MANE 1 63 401.20 422.76 0.45 15.00 400.89 420.00
0.45

CONTINUITY SUMMARY (AC-FT) - INFLOW=0 1305E+03 EXCESS=0.0000E+00 OUTFLOW=0.1304E+03 BASIN STORAGE=
0.4953E-04 PERCENT ERROR= 0.0

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

10 year future-Alternate 1
HEC1 S/N: 1343001909 HMVersion: 6.33 Data File: C:\WINNT\TEMP\~v6h0C34.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  06/19/2001  TIME  16:11:35 *
(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.        :::
:::                                     :::
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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
LINE
    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       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
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