
King County Watershed Modeling Services – Green River Water Quality Assessment, and Sammamish- Washington, Analysis and Modeling Program Watershed Modeling Calibration Report

In Progress



King County

Department of Natural Resources and Parks
Water and Land Resources Division

Science Section

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Section 7—Appendix A

July 2003

Prepared for:



King County

Department of Natural Resources and Parks
Water and Land Resources Division

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In conjunction with King County

Alternative formats available

206-263-6317 TTY Relay: 711

Appendix A: Black/Springbrook UCI File

RUN

GLOBAL

Springbrook/Black River HSPF MODEL VERSION 12 BRASCHER 7/21
 START 1988/10/01 00:00 END 2003/07/31 24:00
 RUN INTERP OUTPT LEVELS 4 2
 RESUME 0 RUN 1 UNITS 1
 END GLOBAL

FILES

```
<FILE> <UN#>***<----FILE NAME----->
<-ID->                                     ***
WDM1      27  C:\Project\Puget\KModel\BASINS\MetData.WDM
WDM2      28  C:\Project\Puget\KModel\BASINS\Black\OutputWQ.WDM
MESSU     25  C:\Project\Puget\KModel\BASINS\Black\BLACKWQ.ECH
           61  C:\Project\Puget\KModel\BASINS\Black\Black.L61
           62  C:\Project\Puget\KModel\BASINS\Black\Black.L62
           63  C:\Project\Puget\KModel\BASINS\Black\Black.L63
BINO      91  C:\Project\Puget\KModel\BASINS\Black\Black.HBN
END FILES
```

OPN SEQUENCE

```
INGRP          INDELT 00:15
*** TILL FOREST
  PERLND       11
  PERLND       12
  PERLND       13
  PERLND       14
*** TILL PASTURE/AG
  PERLND       21
  PERLND       22
  PERLND       23
  PERLND       24
*** TILL FOREST RESIDENTIAL
  PERLND       31
  PERLND       32
  PERLND       33
  PERLND       34
*** TILL LOW DENSITY RESIDENTIAL
  PERLND       41
  PERLND       42
  PERLND       43
  PERLND       44
*** TILL HIGH DENSITY RESIDENTIAL
  PERLND       51
  PERLND       52
  PERLND       53
  PERLND       54
*** TILL COMMERCIAL/INDUSTRIAL
  PERLND       61
  PERLND       62
  PERLND       63
  PERLND       64
*** OUTWASH
  PERLND       71
  PERLND       72
  PERLND       73
  PERLND       74
  PERLND       75
  PERLND       76
*** SATURATED
  PERLND       81
  PERLND       82
  PERLND       83
  PERLND       84
  PERLND       85
  PERLND       86
*** EFFECTIVE IMPERVIOUS AREA
  IMPLND       91
  IMPLND       92
  IMPLND       93
  IMPLND       94
*** TILL FOREST
  PERLND      211
  PERLND      212
```

```

PERLND      213
PERLND      214
*** TILL PASTURE/AG
PERLND      221
PERLND      222
PERLND      223
PERLND      224
*** TILL FOREST RESIDENTIAL
PERLND      231
PERLND      232
PERLND      233
PERLND      234
*** TILL LOW DENSITY RESIDENTIAL
PERLND      241
PERLND      242
PERLND      243
PERLND      244
*** TILL HIGH DENSITY RESIDENTIAL
PERLND      251
PERLND      252
PERLND      253
PERLND      254
*** TILL COMMERCIAL/INDUSTRIAL
PERLND      261
PERLND      262
PERLND      263
PERLND      264
*** OUTWASH
PERLND      271
PERLND      272
PERLND      273
PERLND      274
PERLND      275
PERLND      276
*** SATURATED
PERLND      281
PERLND      282
PERLND      283
PERLND      284
PERLND      285
PERLND      286
***BEDROCK PERLND
PERLND      311
PERLND      312
PERLND      313
PERLND      314
***BEDROCK PERLND
PERLND      321
PERLND      322
PERLND      323
PERLND      324
***BEDROCK PERLND
PERLND      331
PERLND      332
PERLND      333
PERLND      334
***BEDROCK PERLND
PERLND      341
PERLND      342
PERLND      343
PERLND      344
***BEDROCK PERLND
PERLND      351
PERLND      352
PERLND      353
PERLND      354
***BEDROCK PERLND
PERLND      361
PERLND      362
PERLND      363
PERLND      364
*** EFFECTIVE IMPERVIOUS AREA
IMPLND      291
IMPLND      292
IMPLND      293
IMPLND      294

```

```

*** UPPER MILL CREEK
*** UPPER MILL CREEK POND
*** GAGE
    RCHRES      5
    RCHRES     10
    RCHRES     20
    RCHRES     30
    RCHRES     40
    RCHRES     50
*** LOWER MILL CREEK POND
    RCHRES     60
    RCHRES     70
    RCHRES     75
    RCHRES     80
*** MILL CREEK DIVERSION
    RCHRES     85
    RCHRES     90
*** GAGE
    RCHRES    100
    RCHRES    110
    RCHRES    115
    RCHRES    120
    RCHRES    150
*** BOEING DITCH
    RCHRES    140
    RCHRES    130
*** GAGE
    RCHRES    160
*** END UPPER MILL CREEK
*** GARRISON CREEK
    RCHRES    170
    RCHRES    180
    RCHRES    190
    RCHRES    200
    RCHRES    210
    RCHRES    220
    RCHRES    230
    RCHRES    240
    RCHRES    250
    RCHRES    270
    RCHRES    260
*** END GARRISON CREEK
*** SPRINGBROOK CREEK
    RCHRES    280
    RCHRES    290
    RCHRES    310
*** PANTHER CREEK
    RCHRES    350
    RCHRES    360
    RCHRES    370
    RCHRES    390
*** PANTHER CREEK WETLAND
    RCHRES    380
*** END PANTHER CREEK
    RCHRES    320
    RCHRES    400
    RCHRES    420
    RCHRES    325
    RCHRES    430
    RCHRES    330
    RCHRES    340
    RCHRES    410
    RCHRES    460
    RCHRES    440
    RCHRES    470
    RCHRES    480
    RCHRES    490
    RCHRES    500
    RCHRES    510
*** MOUTH BRPS AND GAGE
    RCHRES    520
*** GENERs for calcing total suspended concs
    GENER      8
    GENER     36
    GENER     47
    GENER     51

```

```

GENER      80
GENER     360
GENER     470
GENER     510
*** HSPEXP COPYs
COPY       1
COPY       2
COPY       3
COPY       4
COPY       5
END INGRP
END OPN SEQUENCE

```

PERLND

```

ACTIVITY
*** <PLS >           Active Sections           ***
*** x - x ATMP SNOW PWAT  SED  PST  PWG  PQAL  MSTL  PEST  NITR  PHOS  TRAC ***
11 364  1  0  1  1  1  1  1  0  0  0  0  0
END ACTIVITY

```

PRINT-INFO

```

*** < PLS>           Print-flags           PIVL  PYR
*** x - x ATMP SNOW PWAT  SED  PST  PWG  PQAL  MSTL  PEST  NITR  PHOS  TRAC
11 364  5  4  5  5  5  5  4  4  4  4  4  1  9
END PRINT-INFO

```

BINARY-INFO

```

*** < PLS>           Binary Output Flags           PIVL  PYR
*** x - x ATMP SNOW PWAT  SED  PST  PWG  PQAL  MSTL  PEST  NITR  PHOS  TRAC
11 364  4  4  4  5  5  5  5  4  4  4  4  4  1  9
END BINARY-INFO

```

GEN-INFO

```

***
*** <PLS >           Name           Unit-systems   Printer BinaryOut
*** x - x           t-series   Engl Metr Engl Metr
***               in out
11  TILL, FOREST, FLAT           1  1  61  0  91  0
12  TILL, FOREST, LOW           1  1  61  0  91  0
13  TILL, FOREST, MED           1  1  61  0  91  0
14  TILL, FOREST, STEEP         1  1  61  0  91  0
21  TILL, PAST/AG, FLAT         1  1  61  0  91  0
22  TILL, PAST/AG, LOW          1  1  61  0  91  0
23  TILL, PAST/AG, MED          1  1  61  0  91  0
24  TILL, PAST/AG STEEP         1  1  61  0  91  0
31  TILL, FOR RES, FLAT         1  1  61  0  91  0
32  TILL, FOR RES, LOW          1  1  61  0  91  0
33  TILL, FOR RES, MED          1  1  61  0  91  0
34  TILL, FOR RES STEEP         1  1  61  0  91  0
41  TILL, LD RES, FLAT          1  1  61  0  91  0
42  TILL, LD RES, LOW           1  1  61  0  91  0
43  TILL, LD RES, MED           1  1  61  0  91  0
44  TILL, LD RES, STEEP         1  1  61  0  91  0
51  TILL, HD RES, FLAT          1  1  61  0  91  0
52  TILL, HD RES, LOW           1  1  61  0  91  0
53  TILL, HD RES, MED           1  1  61  0  91  0
54  TILL, HD RES, STEEP         1  1  61  0  91  0
61  TILL, COMM/IND FLAT         1  1  61  0  91  0
62  TILL, COMM/IND LOW          1  1  61  0  91  0
63  TILL, COMM/IND MED          1  1  61  0  91  0
64  TILL, COMM/IND STEE         1  1  61  0  91  0
71  OUTWASH, FOREST             1  1  61  0  91  0
72  OUTWASH, PASTURE            1  1  61  0  91  0
73  OUTWASH, FOR RES            1  1  61  0  91  0
74  OUTWASH, LD RES             1  1  61  0  91  0
75  OUTWASH, HD RES             1  1  61  0  91  0
76  OUTWASH, COMM/IND           1  1  61  0  91  0
81  SATURATED, FOREST           1  1  61  0  91  0
82  SATURATED, PAST/AG          1  1  61  0  91  0
83  SATURATED, FOR RES          1  1  61  0  91  0
84  SATURATED, LD RES           1  1  61  0  91  0
85  SATURATED, HD RES           1  1  61  0  91  0
86  SATURATED, COMM/IND         1  1  61  0  91  0
211 TILL, FOREST, FLAT           1  1  61  0  91  0
212 TILL, FOREST, LOW           1  1  61  0  91  0
213 TILL, FOREST, MED           1  1  61  0  91  0

```

Black/Springbrook UCI File

214	TILL, FOREST, STEEP	1	1	61	0	91	0
221	TILL, PAST/AG, FLAT	1	1	61	0	91	0
222	TILL, PAST/AG, LOW	1	1	61	0	91	0
223	TILL, PAST/AG, MED	1	1	61	0	91	0
224	TILL, PAST/AG STEEP	1	1	61	0	91	0
231	TILL, FOR RES, FLAT	1	1	61	0	91	0
232	TILL, FOR RES, LOW	1	1	61	0	91	0
233	TILL, FOR RES, MED	1	1	61	0	91	0
234	TILL, FOR RES STEEP	1	1	61	0	91	0
241	TILL, LD RES, FLAT	1	1	61	0	91	0
242	TILL, LD RES, LOW	1	1	61	0	91	0
243	TILL, LD RES, MED	1	1	61	0	91	0
244	TILL, LD RES, STEEP	1	1	61	0	91	0
251	TILL, HD RES, FLAT	1	1	61	0	91	0
252	TILL, HD RES, LOW	1	1	61	0	91	0
253	TILL, HD RES, MED	1	1	61	0	91	0
254	TILL, HD RES, STEEP	1	1	61	0	91	0
261	TILL, COMM/IND FLAT	1	1	61	0	91	0
262	TILL, COMM/IND LOW	1	1	61	0	91	0
263	TILL, COMM/IND MED	1	1	61	0	91	0
264	TILL, COMM/IND STEE	1	1	61	0	91	0
271	OUTWASH, FOREST	1	1	61	0	91	0
272	OUTWASH, PASTURE	1	1	61	0	91	0
273	OUTWASH, FOR RES	1	1	61	0	91	0
274	OUTWASH, LD RES	1	1	61	0	91	0
275	OUTWASH, HD RES	1	1	61	0	91	0
276	OUTWASH, COMM/IND	1	1	61	0	91	0
281	SATURATED, FOREST	1	1	61	0	91	0
282	SATURATED, PAST/AG	1	1	61	0	91	0
283	SATURATED, FOR RES	1	1	61	0	91	0
284	SATURATED, LD RES	1	1	61	0	91	0
285	SATURATED, HD RES	1	1	61	0	91	0
286	SATURATED, COMM/IND	1	1	61	0	91	0
311	ROCK, FOREST, FLAT	1	1	61	0	91	0
312	ROCK, FOREST, LOW	1	1	61	0	91	0
313	ROCK, FOREST, MED	1	1	61	0	91	0
314	ROCK, FOREST, STEEP	1	1	61	0	91	0
321	ROCK, PAST/AG, FLAT	1	1	61	0	91	0
322	ROCK, PAST/AG, LOW	1	1	61	0	91	0
323	ROCK, PAST/AG, MED	1	1	61	0	91	0
324	ROCK, PAST/AG STEEP	1	1	61	0	91	0
331	ROCK, FOR RES, FLAT	1	1	61	0	91	0
332	ROCK, FOR RES, LOW	1	1	61	0	91	0
333	ROCK, FOR RES, MED	1	1	61	0	91	0
334	ROCK, FOR RES STEEP	1	1	61	0	91	0
341	ROCK, LD RES, FLAT	1	1	61	0	91	0
342	ROCK, LD RES, LOW	1	1	61	0	91	0
343	ROCK, LD RES, MED	1	1	61	0	91	0
344	ROCK, LD RES, STEEP	1	1	61	0	91	0
351	ROCK, HD RES, FLAT	1	1	61	0	91	0
352	ROCK, HD RES, LOW	1	1	61	0	91	0
353	ROCK, HD RES, MED	1	1	61	0	91	0
354	ROCK, HD RES, STEEP	1	1	61	0	91	0
361	ROCK, COMM/IND FLAT	1	1	61	0	91	0
362	ROCK, COMM/IND LOW	1	1	61	0	91	0
363	ROCK, COMM/IND MED	1	1	61	0	91	0
364	ROCK, COMM/IND STEE	1	1	61	0	91	0

END GEN-INFO

ATEMP-DAT
 *** <PLS > ELDAT AIRTEMP
 *** x - x (ft) (deg F)

11	337.	50.
12	270.	50.
13	205.	50.
14	180.	50.
21	374.	50.
22	339.	50.
23	289.	50.
24	243.	50.
31	337.	50.
32	270.	50.
33	205.	50.
34	180.	50.
41	311.	50.
42	301.	50.

43	240.	50.
44	187.	50.
51	263.	50.
52	312.	50.
53	240.	50.
54	211.	50.
61	192.	50.
62	262.	50.
63	209.	50.
64	178.	50.
71	41.	50.
72	5.	50.
73	41.	50.
74	22.	50.
75	15.	50.
76	1.	50.
81	88.	50.
82	138.	50.
83	88.	50.
84	133.	50.
85	13.	50.
86	9.	50.
211	337.	50.
212	270.	50.
213	205.	50.
214	180.	50.
221	374.	50.
222	339.	50.
223	289.	50.
224	243.	50.
231	337.	50.
232	270.	50.
233	205.	50.
234	180.	50.
241	311.	50.
242	301.	50.
243	240.	50.
244	187.	50.
251	263.	50.
252	312.	50.
253	240.	50.
254	211.	50.
261	192.	50.
262	262.	50.
263	209.	50.
264	178.	50.
271	41.	50.
272	5.	50.
273	41.	50.
274	22.	50.
275	15.	50.
276	1.	50.
281	88.	50.
282	138.	50.
283	88.	50.
284	133.	50.
285	13.	50.
286	9.	50.
311	104.	50.
312	78.	50.
313	82.	50.
314	87.	50.
321	106.	50.
322	104.	50.
323	135.	50.
324	119.	50.
331	104.	50.
332	78.	50.
333	82.	50.
334	87.	50.
341	148.	50.
342	124.	50.
343	116.	50.
344	121.	50.
351	89.	50.
352	108.	50.

353 106. 50.
 354 117. 50.
 361 49. 50.
 362 50. 50.
 363 81. 50.
 364 70. 50.
 END ATEMP-DAT

PWAT-PARM1
 *** <PLS > Flags
 *** x - x CSNO RTOP UZFG VCS VUZ VNN VIFW VIRC VLE IFFC HWT IRRG
 11 364 0 0 0 0 0 0 0 0 1 1 0 0
 END PWAT-PARM1

PWAT-PARM2
 *** < PLS> FOREST LZSN INFILT L SUR SLSUR K VARY AGWRC
 *** x - x (in) (in/hr) (ft) (1/in) (1/day)
 ***TILL FOREST
 11 0. 4.5 0.088 350. 0.025 0.45 0.992
 12 0. 4.5 0.077 300. 0.076 0.45 0.992
 13 0. 4.5 0.066 250. 0.125 0.45 0.992
 14 0. 4.5 0.055 200. 0.251 0.45 0.992
 ***TILL PASTURE/AG
 21 0. 4.5 0.066 350. 0.024 0.45 0.992
 22 0. 4.5 0.055 300. 0.07 0.45 0.992
 23 0. 4.5 0.044 250. 0.119 0.45 0.992
 24 0. 4.5 0.033 200. 0.193 0.45 0.992
 ***TILL FOREST RESIDENTIAL
 31 0. 4.5 0.088 350. 0.025 0.45 0.992
 32 0. 4.5 0.077 300. 0.076 0.45 0.992
 33 0. 4.5 0.066 250. 0.125 0.45 0.992
 34 0. 4.5 0.055 200. 0.251 0.45 0.992
 ***TILL LOW DENSITY RES
 41 0. 4.5 0.044 350. 0.023 0.45 0.992
 42 0. 4.5 0.0385 300. 0.072 0.45 0.992
 43 0. 4.5 0.033 250. 0.123 0.45 0.992
 44 0. 4.5 0.0275 200. 0.222 0.45 0.992
 ***TILL HIGH DENSITY RES
 51 0. 4.5 0.033 350. 0.021 0.45 0.992
 52 0. 4.5 0.0286 300. 0.071 0.45 0.992
 53 0. 4.5 0.0242 250. 0.119 0.45 0.992
 54 0. 4.5 0.0198 200. 0.204 0.45 0.992
 ***TILL COMMERCIAL/INDUSTRIAL
 61 0. 4.5 0.033 350. 0.016 0.45 0.992
 62 0. 4.5 0.0286 300. 0.07 0.45 0.992
 63 0. 4.5 0.0242 250. 0.122 0.45 0.992
 64 0. 4.5 0.0198 200. 0.212 0.45 0.992
 ***OUTWASH
 71 0. 4.5 0.26 300. 0.047 0.27 0.99
 72 0. 4.5 0.195 300. 0.005 0.27 0.99
 73 0. 4.5 0.26 300. 0.047 0.27 0.99
 74 0. 4.5 0.13 300. 0.015 0.27 0.99
 75 0. 4.5 0.104 300. 0.008 0.27 0.99
 76 0. 4.5 0.104 300. 0.004 0.27 0.99
 ***SATURATED
 81 0. 4. 2.2 150. 0.001 0.45 0.992
 82 0. 4. 1.65 150. 0.001 0.45 0.992
 83 0. 4. 2.2 150. 0.001 0.45 0.992
 84 0. 4. 1.1 150. 0.001 0.45 0.992
 85 86 0. 4. 0.88 150. 0.001 0.45 0.992
 ***TILL FOREST
 211 0. 6.75 0.28 350. 0.025 0.4 0.998
 212 0. 6.75 0.245 300. 0.076 0.4 0.998
 213 0. 6.75 0.21 250. 0.125 0.4 0.998
 214 0. 6.75 0.175 200. 0.251 0.4 0.998
 ***TILL PASTURE/AG
 221 0. 6.75 0.21 350. 0.024 0.4 0.998
 222 0. 6.75 0.175 300. 0.07 0.4 0.998
 223 0. 6.75 0.14 250. 0.119 0.4 0.998
 224 0. 6.75 0.105 200. 0.193 0.4 0.998
 ***TILL FOREST RESIDENTIAL
 231 0. 6.75 0.28 350. 0.025 0.4 0.998
 232 0. 6.75 0.245 300. 0.076 0.4 0.998
 233 0. 6.75 0.21 250. 0.125 0.4 0.998
 234 0. 6.75 0.175 200. 0.251 0.4 0.998
 ***TILL LOW DENSITY RES

Black/Springbrook UCI File

241	0.	6.75	0.14	350.	0.023	0.4	0.998
242	0.	6.75	0.1225	300.	0.072	0.4	0.998
243	0.	6.75	0.105	250.	0.123	0.4	0.998
244	0.	6.75	0.0875	200.	0.222	0.4	0.998
***TILL HIGH DENSITY RES							
251	0.	6.75	0.105	350.	0.021	0.4	0.998
252	0.	6.75	0.091	300.	0.071	0.4	0.998
253	0.	6.75	0.077	250.	0.119	0.4	0.998
254	0.	6.75	0.063	200.	0.204	0.4	0.998
***TILL COMMERCIAL/INDUSTRIAL							
261	0.	6.75	0.105	350.	0.016	0.4	0.998
262	0.	6.75	0.091	300.	0.07	0.4	0.998
263	0.	6.75	0.077	250.	0.122	0.4	0.998
264	0.	6.75	0.063	200.	0.212	0.4	0.998
***OUTWASH							
271	0.	7.5	1	300.	0.047	0.24	0.997
272	0.	7.5	0.75	300.	0.005	0.24	0.997
273	0.	7.5	1	300.	0.047	0.24	0.997
274	0.	7.5	0.5	300.	0.015	0.24	0.997
275	0.	7.5	0.4	300.	0.008	0.24	0.997
276	0.	7.5	0.4	300.	0.004	0.24	0.997
***SATURATED							
281	0.	6	7	150.	0.001	0.4	0.998
282	0.	6	5.25	150.	0.001	0.4	0.998
283	0.	6	7	150.	0.001	0.4	0.998
284	0.	6	3.5	150.	0.001	0.4	0.998
285 286	0.	6	2.8	150.	0.001	0.4	0.998
***ROCK FOREST							
311	0.	6	0.1	400.	0.01	0.4	0.998
312	0.	6	0.1	400.	0.05	0.4	0.998
313	0.	6	0.1	400.	0.1	0.4	0.998
314	0.	6	0.1	400.	0.2	0.4	0.998
***ROCK PASTURE/AG							
321	0.	6	0.08	400.	0.01	0.4	0.998
322	0.	6	0.08	400.	0.05	0.4	0.998
323	0.	6	0.08	400.	0.1	0.4	0.998
324	0.	6	0.08	400.	0.2	0.4	0.998
***ROCK FOREST RES							
331	0.	6	0.1	400.	0.01	0.4	0.998
332	0.	6	0.1	400.	0.05	0.4	0.998
333	0.	6	0.1	400.	0.1	0.4	0.998
334	0.	6	0.1	400.	0.2	0.4	0.998
***ROCK LOW DENSITY RES							
341	0.	6	0.07	400.	0.01	0.4	0.998
342	0.	6	0.07	400.	0.02	0.4	0.998
343	0.	6	0.07	400.	0.1	0.4	0.998
344	0.	6	0.07	400.	0.2	0.4	0.998
***ROCK HIGH DENSITY RES							
351	0.	6	0.06	400.	0.01	0.4	0.998
352	0.	6	0.06	400.	0.05	0.4	0.998
353	0.	6	0.06	400.	0.1	0.4	0.998
354	0.	6	0.06	400.	0.2	0.4	0.998
***ROCK COMMERCIAL/INDUSTRIAL							
361	0.	6	0.06	400.	0.01	0.4	0.998
362	0.	6	0.06	400.	0.05	0.4	0.998
363	0.	6	0.06	400.	0.1	0.4	0.998
364	0.	6	0.06	400.	0.2	0.4	0.998

END PWAT-PARM2

PWAT-PARM3

*** < PLS>	PETMAX	PETMIN	INFEXP	INFILD	DEEPFR	BASETP	AGWETP
*** x - x	(deg F)	(deg F)					
11 76	40.	35.	2	2.	0.	0	0
81 86	40.	35.	8	2.	0.	0	0.7
211 276	40.	35.	1.5	2.	0.02	0	0
281 286	40.	35.	8	2.	0.02	0	0.7
311 364	40.	35.	2	2.	0.02	0	0

END PWAT-PARM3

PWAT-PARM4

*** <PLS >	CEPSC	UZSN	NSUR	INTFW	IRC	LZETP
*** x - x	(in)	(in)			(1/day)	
11	0.2	0.9	0.35	1.6	0.48	0.7
12	0.2	0.675	0.35	1.4	0.4	0.7
13	0.2	0.405	0.35	1.2	0.32	0.7
14	0.2	0.27	0.35	1	0.24	0.7

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21		0.15	0.54	0.3	1.6	0.48	0.4
22		0.15	0.405	0.3	1.4	0.4	0.4
23		0.15	0.27	0.3	1.2	0.32	0.4
24		0.15	0.18	0.3	1	0.24	0.4
31		0.2	0.9	0.35	1.6	0.48	0.7
32		0.2	0.675	0.35	1.4	0.32	0.7
33		0.2	0.405	0.35	1.2	0.32	0.7
34		0.2	0.27	0.35	1	0.24	0.7
41		0.1	0.45	0.25	1.6	0.48	0.25
42		0.1	0.27	0.25	1.4	0.4	0.25
43		0.1	0.18	0.25	1.2	0.32	0.25
44		0.1	0.135	0.25	1	0.24	0.25
51		0.1	0.45	0.25	1.6	0.48	0.25
52		0.1	0.27	0.25	1.4	0.4	0.25
53		0.1	0.18	0.25	1.2	0.32	0.25
54		0.1	0.09	0.25	1	0.24	0.25
61		0.1	0.45	0.25	1.6	0.48	0.25
62		0.1	0.27	0.25	1.4	0.4	0.25
63		0.1	0.18	0.25	1.2	0.32	0.25
64		0.1	0.09	0.25	1	0.24	0.25
71		0.2	0.45	0.35	1.1	0.48	0.7
72		0.15	0.45	0.3	1.1	0.48	0.4
73		0.2	0.45	0.35	1.1	0.48	0.7
74	76	0.1	0.45	0.25	1.1	0.48	0.25
81		0.2	2.7	0.5	1.5	0.48	0.8
82		0.15	2.7	0.5	1.5	0.48	0.8
83		0.2	2.7	0.5	1.5	0.48	0.8
84	86	0.1	2.7	0.5	1.5	0.48	0.8
211		0.2	1.5	0.35	2.4	0.6	0.7
212		0.2	1.125	0.35	2.1	0.5	0.7
213		0.2	0.675	0.35	1.8	0.4	0.7
214		0.2	0.45	0.35	1.5	0.3	0.7
221		0.15	0.9	0.3	2.4	0.6	0.4
222		0.15	0.675	0.3	2.1	0.5	0.4
223		0.15	0.45	0.3	1.8	0.4	0.4
224		0.15	0.3	0.3	1.5	0.3	0.4
231		0.2	1.5	0.35	2.4	0.6	0.7
232		0.2	1.125	0.35	2.1	0.5	0.7
233		0.2	0.675	0.35	1.8	0.4	0.7
234		0.2	0.45	0.35	1.5	0.3	0.7
241		0.1	0.75	0.25	2.4	0.6	0.25
242		0.1	0.45	0.25	2.1	0.5	0.25
243		0.1	0.3	0.25	1.8	0.4	0.25
244		0.1	0.225	0.25	1.5	0.3	0.25
251		0.1	0.75	0.25	2.4	0.6	0.25
252		0.1	0.45	0.25	2.1	0.5	0.25
253		0.1	0.3	0.25	1.8	0.4	0.25
254		0.1	0.15	0.25	1.5	0.3	0.25
261		0.1	0.75	0.25	2.4	0.6	0.25
262		0.1	0.45	0.25	2.1	0.5	0.25
263		0.1	0.3	0.25	1.8	0.4	0.25
264		0.1	0.15	0.25	1.5	0.3	0.25
271		0.2	0.75	0.35	1.6	0.6	0.7
272		0.15	0.75	0.3	1.6	0.6	0.4
273		0.2	0.75	0.35	1.6	0.6	0.7
274	276	0.1	0.75	0.25	1.6	0.6	0.25
281		0.2	4.5	0.5	2.2	0.6	0.8
282		0.15	4.5	0.5	2.2	0.6	0.8
283		0.2	4.5	0.5	2.2	0.6	0.8
284	286	0.1	4.5	0.5	2.2	0.6	0.8
311		0.2	0.75	0.35	1	0.7	0.7
312		0.2	0.6	0.35	1	0.4	0.7
313		0.2	0.45	0.35	1	0.3	0.7
314		0.2	0.3	0.35	1	0.2	0.7
321		0.15	0.45	0.25	1	0.7	0.25
322		0.15	0.3	0.25	1	0.4	0.25
323		0.15	0.225	0.25	1	0.3	0.25
324		0.15	0.15	0.25	1	0.2	0.25
331		0.2	0.75	0.35	1	0.7	0.7
332		0.2	0.6	0.35	1	0.4	0.7
333		0.2	0.45	0.35	1	0.3	0.7
334		0.2	0.3	0.35	1	0.2	0.7
341		0.1	0.3	0.25	1	0.7	0.25
342		0.1	0.225	0.25	1	0.4	0.25
343		0.1	0.15	0.25	1	0.3	0.25
344		0.1	0.075	0.25	1	0.2	0.25

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351      0.1      0.3      0.25      1.      0.7      0.25
352      0.1      0.225     0.25      1.      0.4      0.25
353      0.1      0.15      0.25      1.      0.3      0.25
354      0.1      0.075     0.25      1.      0.2      0.25
361      0.1      0.3      0.25      1.      0.7      0.25
362      0.1      0.225     0.25      1.      0.4      0.25
363      0.1      0.15      0.25      1.      0.3      0.25
364      0.1      0.075     0.25      1.      0.2      0.25
END PWAT-PARM4

```

```

PWAT-STATE1
*** < PLS> PWATER state variables (in)
*** x - x      CEPS      SURS      UZS      IFWS      LZS      AGWS      GWVS
11      0.      0.      0.5      0.      2.5      5.      0.03
12      0.      0.      0.3      0.      2.5      5.      0.03
13      0.      0.      0.2      0.      2.5      5.      0.03
14      0.      0.      0.15     0.      2.5      5.      0.03
21      0.      0.      0.4      0.      2.5      5.      0.03
22      0.      0.      0.25     0.      2.5      5.      0.03
23      0.      0.      0.15     0.      2.5      5.      0.03
24      0.      0.      0.12     0.      2.5      5.      0.03
31      0.      0.      0.5      0.      2.5      5.      0.03
32      0.      0.      0.3      0.      2.5      5.      0.03
33      0.      0.      0.2      0.      2.5      5.      0.03
34      0.      0.      0.15     0.      2.5      5.      0.03
41      0.      0.      0.25     0.      2.5      5.      0.03
42      0.      0.      0.15     0.      2.5      5.      0.03
43      0.      0.      0.1      0.      2.5      5.      0.03
44      0.      0.      0.06     0.      2.5      5.      0.03
51      0.      0.      0.25     0.      2.5      5.      0.03
52      0.      0.      0.15     0.      2.5      5.      0.03
53      0.      0.      0.1      0.      2.5      5.      0.03
54      0.      0.      0.06     0.      2.5      5.      0.03
61      0.      0.      0.25     0.      2.5      5.      0.03
62      0.      0.      0.15     0.      2.5      5.      0.03
63      0.      0.      0.1      0.      2.5      5.      0.03
64      0.      0.      0.06     0.      2.5      5.      0.03
71      76      0.      0.      0.25     0.      3.      5.      0.05
81      86      0.      0.      0.2      0.      3.2     5.      0.02
211     0.      0.      0.5      0.      2.5      5.      0.03
212     0.      0.      0.3      0.      2.5      5.      0.03
213     0.      0.      0.2      0.      2.5      5.      0.03
214     0.      0.      0.15     0.      2.5      5.      0.03
221     0.      0.      0.4      0.      2.5      5.      0.03
222     0.      0.      0.25     0.      2.5      5.      0.03
223     0.      0.      0.15     0.      2.5      5.      0.03
224     0.      0.      0.12     0.      2.5      5.      0.03
231     0.      0.      0.5      0.      2.5      5.      0.03
232     0.      0.      0.3      0.      2.5      5.      0.03
233     0.      0.      0.2      0.      2.5      5.      0.03
234     0.      0.      0.15     0.      2.5      5.      0.03
241     0.      0.      0.25     0.      2.5      5.      0.03
242     0.      0.      0.15     0.      2.5      5.      0.03
243     0.      0.      0.1      0.      2.5      5.      0.03
244     0.      0.      0.06     0.      2.5      5.      0.03
251     0.      0.      0.25     0.      2.5      5.      0.03
252     0.      0.      0.15     0.      2.5      5.      0.03
253     0.      0.      0.1      0.      2.5      5.      0.03
254     0.      0.      0.06     0.      2.5      5.      0.03
261     0.      0.      0.25     0.      2.5      5.      0.03
262     0.      0.      0.15     0.      2.5      5.      0.03
263     0.      0.      0.1      0.      2.5      5.      0.03
264     0.      0.      0.06     0.      2.5      5.      0.03
271     276     0.      0.      0.25     0.      3.      5.      0.05
281     286     0.      0.      0.2      0.      3.2     5.      0.02
311     0.      0.      0.015    0.      1.5      2.9     0.07
312     0.      0.      0.01     0.      1.45     3.      0.06
313     0.      0.      0.008    0.      1.4      3.1     0.06
314     0.      0.      0.006    0.      1.4      3.1     0.06
321     0.      0.      0.015    0.      1.5      2.9     0.07
322     0.      0.      0.01     0.      1.45     3.      0.06
323     0.      0.      0.006    0.      1.4      3.1     0.06
331     0.      0.      0.015    0.      1.5      2.9     0.07
332     0.      0.      0.01     0.      1.45     3.      0.06
333     0.      0.      0.008    0.      1.4      3.1     0.06
334     0.      0.      0.006    0.      1.4      3.1     0.06

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341      0.      0.      0.01      0.      3.      2.7      0.28
342      0.      0.      0.008      0.      3.      2.8      0.23
343      0.      0.      0.004      0.      3.      2.8      0.23
344      0.      0.      0.002      0.      3.      2.9      0.22
351      0.      0.      0.01      0.      3.      2.7      0.28
352      0.      0.      0.008      0.      3.      2.8      0.23
353      0.      0.      0.004      0.      3.      2.8      0.23
354      0.      0.      0.002      0.      3.      2.9      0.22
361      0.      0.      0.01      0.      3.      2.7      0.28
362      0.      0.      0.008      0.      3.      2.8      0.23
363      0.      0.      0.004      0.      3.      2.8      0.23
364      0.      0.      0.002      0.      3.      2.9      0.22
END PWAT-STATE1

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MON-LZETPARM

```

*** <PLS > Lower zone evapotransp parm at start of each month
*** x - x JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
11 14 0.42 0.42 0.42 0.42 0.49 0.49 0.49 0.49 0.49 0.42 0.42 0.42
21 24 0.14 0.14 0.140.175 0.210.245 0.28 0.28 0.280.315 0.21 0.14
31 34 0.42 0.42 0.42 0.42 0.49 0.49 0.49 0.49 0.49 0.42 0.42 0.42
41 640.1050.105 0.14 0.140.1750.1750.1750.175 0.14 0.140.105
71 0.42 0.42 0.42 0.42 0.42 0.49 0.49 0.49 0.49 0.42 0.42 0.42
72 0.14 0.14 0.140.175 0.210.245 0.28 0.28 0.280.315 0.21 0.14
73 0.42 0.42 0.42 0.42 0.49 0.49 0.49 0.49 0.49 0.42 0.42 0.42
74 760.1050.105 0.14 0.140.1750.1750.1750.175 0.14 0.140.105
81 86 0.35 0.35 0.35 0.42 0.490.525 0.56 0.560.525 0.49 0.42 0.35
211 214 0.6 0.6 0.6 0.6 0.7 0.7 0.7 0.7 0.7 0.6 0.6 0.6
221 224 0.2 0.2 0.2 0.25 0.3 0.35 0.4 0.4 0.4 0.45 0.3 0.2
231 234 0.6 0.6 0.6 0.6 0.7 0.7 0.7 0.7 0.7 0.6 0.6 0.6
241 264 0.15 0.15 0.2 0.2 0.25 0.25 0.25 0.25 0.25 0.2 0.2 0.15
271 0.6 0.6 0.6 0.6 0.6 0.7 0.7 0.7 0.7 0.6 0.6 0.6
272 0.2 0.2 0.2 0.25 0.3 0.35 0.4 0.4 0.4 0.45 0.3 0.2
273 0.6 0.6 0.6 0.6 0.6 0.7 0.7 0.7 0.7 0.6 0.6 0.6
274 276 0.15 0.15 0.2 0.2 0.25 0.25 0.25 0.25 0.25 0.2 0.2 0.15
281 286 0.5 0.5 0.5 0.6 0.7 0.75 0.8 0.8 0.75 0.7 0.6 0.5
311 314 0.3 0.3 0.3 0.4 0.5 0.6 0.7 0.7 0.7 0.5 0.3 0.3
321 324 0.2 0.2 0.2 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.2 0.2
331 334 0.3 0.3 0.3 0.4 0.5 0.6 0.7 0.7 0.7 0.5 0.3 0.3
341 364 0.15 0.15 0.2 0.2 0.25 0.25 0.25 0.25 0.25 0.2 0.2 0.15
END MON-LZETPARM

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SED-PARM1

```

*** <PLS > Sediment parameters 1
*** x - x CRV VSIV SDOP
11 364 1 0 1
END SED-PARM1

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SED-PARM2

```

*** <PLS > SMPF KRER JRER AFFIX COVER NVSI
*** x - x (/day) lb/ac-day
***TILL FOREST
11 14 1. 0.6 2. 0.003 0. 10.
***TILL PASTURE/AG
21 24 1. 0.6 2. 0.003 0. 30.
***TILL FOREST RESIDENTIAL
31 34 1. 0.6 2. 0.003 0. 15.
***TILL LOW DENSITY RES
41 44 1. 0.6 2. 0.003 0. 40.
***TILL HIGH DENSITY RES
51 54 1. 0.6 2. 0.003 0. 50.
***TILL COMMERCIAL/INDUSTRIAL
61 64 1. 0.6 2. 0.003 0. 100.
***OUTWASH
71 1. 0.8 2.5 0.01 0. 10.
72 1. 0.8 2.5 0.01 0. 20.
73 1. 0.8 2.5 0.01 0. 15.
74 1. 0.8 2.5 0.01 0. 30.
75 1. 0.8 2.5 0.01 0. 50.
76 1. 0.8 2.5 0.01 0. 100.
***SATURATED
81 1. 0.7 2.5 0.01 0. 10.
82 1. 0.7 2.5 0.01 0. 20.
83 1. 0.7 2.5 0.01 0. 15.
84 1. 0.7 2.5 0.01 0. 30.
85 1. 0.7 2.5 0.01 0. 50.
86 1. 0.7 2.5 0.01 0. 100.

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```

***TILL FOREST
 211 214      1.      0.6      2.      0.003      0.      10.
***TILL PASTURE/AG
 221 224      1.      0.6      2.      0.003      0.      30.
***TILL FOREST RESIDENTIAL
 231 234      1.      0.6      2.      0.003      0.      15.
***TILL LOW DENSITY RES
 241 244      1.      0.6      2.      0.003      0.      40.
***TILL HIGH DENSITY RES
 251 254      1.      0.6      2.      0.003      0.      50.
***TILL COMMERCIAL/INDUSTRIAL
 261 264      1.      0.6      2.      0.003      0.      100.
***OUTWASH
 271          1.      0.8      2.5      0.01      0.      10.
 272          1.      0.8      2.5      0.01      0.      20.
 273          1.      0.8      2.5      0.01      0.      15.
 274          1.      0.8      2.5      0.01      0.      30.
 275          1.      0.8      2.5      0.01      0.      50.
 276          1.      0.8      2.5      0.01      0.      100.
***SATURATED
 281          1.      0.7      2.5      0.01      0.      10.
 282          1.      0.7      2.5      0.01      0.      20.
 283          1.      0.7      2.5      0.01      0.      15.
 284          1.      0.7      2.5      0.01      0.      30.
 285          1.      0.7      2.5      0.01      0.      50.
 286          1.      0.7      2.5      0.01      0.      100.
***BEDROCK PERLNDS
 311 314      1.      0.6      2.      0.003      0.      10.
 321 324      1.      0.6      2.      0.003      0.      30.
 331 334      1.      0.6      2.      0.003      0.      15.
 341 344      1.      0.6      2.      0.003      0.      40.
 351 354      1.      0.6      2.      0.003      0.      50.
 361 364      1.      0.6      2.      0.003      0.      100.
END SED-PARM2

```

```

SED-PARM3
*** <PLS > Sediment parameter 3
*** x - x      KSER      JSER      KGER      JGER
***TILL FOREST
 11 24      1      2.      0.      2.
***TILL FOREST RESIDENTIAL
 31 34      1.4      2.      0.      2.
***TILL LOW DENSITY RES
 41 54      0.48      2.      0.      2.
***TILL COMMERCIAL/INDUSTRIAL
 61 64      0.72      2.      0.      2.
***OUTWASH
 71 72      2      2.      0.      2.
 73          2.8      2.      0.      2.
 74 75      0.96      2.      0.      2.
 76          1.44      2.      0.      2.
***SATURATED
 81 82      1      2.      0.      2.
 83          1.4      2.      0.      2.
 84 85      0.48      2.      0.      2.
 86          0.72      2.      0.      2.
***TILL FOREST UPPER WATERSHED
 211 224      0.25      2.      0.      2.
***TILL FOREST RESIDENTIAL
 231 234      0.35      2.      0.      2.
***TILL LOW DENSITY RES
 241 254      0.12      2.      0.      2.
***TILL COMMERCIAL/INDUSTRIAL
 261 264      0.18      2.      0.      2.
***OUTWASH
 271 272      0.5      2.      0.      2.
 273          0.7      2.      0.      2.
 274 275      0.24      2.      0.      2.
 276          0.36      2.      0.      2.
***SATURATED
 281 282      0.5      2.      0.      2.
 283          0.7      2.      0.      2.
 284 285      0.24      2.      0.      2.
 286          0.36      2.      0.      2.
***BEDROCK PERLNDS
 311 324      0.5      2.      0.      2.

```

331 334 0.7 2. 0. 2.
 341 354 0.25 2. 0. 2.
 361 364 0.35 2. 0. 2.
 END SED-PARM3

MON-COVER

*** <PLS > Monthly values for erosion related cover
 *** x - x JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
 ***TILL FOREST
 11 14 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97
 ***TILL PASTURE/AG
 21 24 0.65 0.6 0.55 0.5 0.55 0.65 0.75 0.85 0.85 0.8 0.8 0.7
 ***TILL FOREST RESIDENTIAL
 31 34 0.93 0.93 0.93 0.94 0.96 0.96 0.96 0.96 0.96 0.94 0.93 0.93
 ***TILL LOW DENSITY RES
 41 44 0.9 0.9 0.9 0.9 0.91 0.93 0.93 0.93 0.93 0.93 0.91 0.9 0.9
 ***TILL HIGH DENSITY RES
 51 54 0.7 0.7 0.7 0.73 0.75 0.75 0.75 0.75 0.75 0.73 0.7 0.7
 ***TILL COMMERCIAL/INDUSTRIAL
 61 64 0.6 0.6 0.6 0.65 0.67 0.69 0.69 0.69 0.67 0.65 0.6 0.6
 ***OUTWASH
 71 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97
 72 0.65 0.6 0.55 0.5 0.55 0.65 0.75 0.85 0.85 0.8 0.8 0.7
 73 0.93 0.93 0.93 0.94 0.96 0.96 0.96 0.96 0.96 0.94 0.93 0.93
 74 0.9 0.9 0.9 0.91 0.93 0.93 0.93 0.93 0.93 0.91 0.9 0.9
 75 0.7 0.7 0.7 0.73 0.75 0.75 0.75 0.75 0.75 0.73 0.7 0.7
 76 0.6 0.6 0.6 0.65 0.67 0.69 0.69 0.69 0.67 0.65 0.6 0.6
 ***SATURATED
 81 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97
 82 0.65 0.6 0.55 0.5 0.55 0.65 0.75 0.85 0.85 0.8 0.8 0.7
 83 0.93 0.93 0.93 0.94 0.96 0.96 0.96 0.96 0.96 0.94 0.93 0.93
 84 0.9 0.9 0.9 0.91 0.93 0.93 0.93 0.93 0.93 0.91 0.9 0.9
 85 0.7 0.7 0.7 0.73 0.75 0.75 0.75 0.75 0.75 0.73 0.7 0.7
 86 0.6 0.6 0.6 0.65 0.67 0.69 0.69 0.69 0.67 0.65 0.6 0.6
 ***TILL FOREST UPPER WATERSHED
 211 214 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97
 ***TILL PASTURE/AG
 221 224 0.65 0.6 0.55 0.5 0.55 0.65 0.75 0.93 0.93 0.9 0.8 0.7
 ***TILL FOREST RESIDENTIAL
 231 234 0.93 0.93 0.93 0.94 0.96 0.96 0.96 0.96 0.96 0.94 0.93 0.93
 ***TILL LOW DENSITY RES
 241 244 0.9 0.9 0.9 0.91 0.93 0.93 0.93 0.93 0.93 0.91 0.9 0.9
 ***TILL HIGH DENSITY RES
 251 254 0.7 0.7 0.7 0.73 0.75 0.75 0.75 0.75 0.75 0.73 0.7 0.7
 ***TILL COMMERCIAL/INDUSTRIAL
 261 264 0.6 0.6 0.6 0.65 0.67 0.69 0.69 0.69 0.67 0.65 0.6 0.6
 ***OUTWASH
 271 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97
 272 0.65 0.6 0.55 0.5 0.55 0.65 0.75 0.85 0.85 0.8 0.8 0.7
 273 0.93 0.93 0.93 0.94 0.96 0.96 0.96 0.96 0.96 0.94 0.93 0.93
 274 0.9 0.9 0.9 0.91 0.93 0.93 0.93 0.93 0.93 0.91 0.9 0.9
 275 0.7 0.7 0.7 0.73 0.75 0.75 0.75 0.75 0.75 0.73 0.7 0.7
 276 0.6 0.6 0.6 0.65 0.67 0.69 0.69 0.69 0.67 0.65 0.6 0.6
 ***SATURATED
 281 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97
 282 0.65 0.6 0.55 0.5 0.55 0.65 0.75 0.85 0.85 0.8 0.8 0.7
 283 0.93 0.93 0.93 0.94 0.96 0.96 0.96 0.96 0.96 0.94 0.93 0.93
 284 0.9 0.9 0.9 0.91 0.93 0.93 0.93 0.93 0.93 0.91 0.9 0.9
 285 0.7 0.7 0.7 0.73 0.75 0.75 0.75 0.75 0.75 0.73 0.7 0.7
 286 0.6 0.6 0.6 0.65 0.67 0.69 0.69 0.69 0.67 0.65 0.6 0.6
 ***BEDROCK PERLNDs
 311 314 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97
 321 324 0.65 0.6 0.55 0.5 0.55 0.65 0.75 0.93 0.93 0.9 0.8 0.7
 331 334 0.93 0.93 0.93 0.94 0.96 0.96 0.96 0.96 0.96 0.94 0.93 0.93
 341 344 0.9 0.9 0.9 0.91 0.93 0.93 0.93 0.93 0.93 0.91 0.9 0.9
 351 354 0.7 0.7 0.7 0.73 0.75 0.75 0.75 0.75 0.75 0.73 0.7 0.7
 361 364 0.6 0.6 0.6 0.65 0.67 0.69 0.69 0.69 0.67 0.65 0.6 0.6
 END MON-COVER

SED-STOR

*** <PLS > Detached sediment storage (tons/acre)
 *** x - x DETS
 ***TILL FOREST
 11 14 0.05
 ***TILL PASTURE/AG
 21 24 0.12


```

***TILL FOREST RESIDENTIAL
  31  44    0.06
***TILL HIGH DENSITY RES
  51  54    0.05
***TILL COMMERCIAL/INDUSTRIAL
  61  71    0.07
  72          0.14
  73  74    0.08
  75          0.07
  76          0.12
***SATURATED
  81          0.07
  82          0.14
  83  84    0.08
  85          0.07
  86          0.12
***TILL FOREST UPPER WATERSHED
 211 214    0.05
***TILL PASTURE/AG
 221 224    0.12
***TILL FOREST RESIDENTIAL
 231 244    0.06
***TILL HIGH DENSITY RES
 251 254    0.05
***TILL COMMERCIAL/INDUSTRIAL
 261 271    0.07
 272          0.14
 273 274    0.08
 275          0.07
 276          0.12
***SATURATED
 281          0.07
 282          0.14
 283 284    0.08
 285          0.07
 286          0.12
***Bedrock PerLnds
 311 314    0.05
 321 324    0.12
 331 344    0.06
 351 354    0.05
 361 364    0.07
END SED-STOR

PSTEMP-PARM1
*** <PLS >  Flags for section PSTEMP
*** x - x SLTV ULTV LGTV TSOP
  11 364  1  1  1  1
END PSTEMP-PARM1

PSTEMP-PARM2
*** <PLS >      ASLT      BSLT      ULTP1      ULTP2      LGTP1      LGTP2
*** x - x      (deg F)    (deg F)    (deg F)    (deg F)    (deg F)    (deg F)
  11 364      60.      0.25      60.      0.2      60.      0.2
END PSTEMP-PARM2

MON-ASLT
*** <PLS >  Value of ASLT at start of each month (deg F)
*** x - x  JAN  FEB  MAR  APR  MAY  JUN  JUL  AUG  SEP  OCT  NOV  DEC
  11  86  40.  41.  45.  49.  53.  57.  59.  59.  57.  53.  49.  46.
 211 364  41.  42.  46.  50.  54.  58.  60.  60.  58.  54.  50.  47.
END MON-ASLT

MON-BSLT
*** <PLS >  Value of BSLT at start of each month (deg F/F)
*** x - x  JAN  FEB  MAR  APR  MAY  JUN  JUL  AUG  SEP  OCT  NOV  DEC
  11 364  0.6  0.6  0.6  0.6  0.6  0.6  0.6  0.6  0.6  0.6  0.6  0.6
END MON-BSLT

MON-ULTP1
*** <PLS >  Value of ULTP1 at start of each month in deg F (TSOPFG=1)
*** x - x  JAN  FEB  MAR  APR  MAY  JUN  JUL  AUG  SEP  OCT  NOV  DEC
  11  86  39.  39.  43.  47.  51.  55.  58.  58.  55.  51.  47.  43.
 211 364  40.  40.  44.  48.  52.  56.  59.  59.  56.  52.  48.  44.
END MON-ULTP1

```

MON-ULTP2
 *** <PLS > Value of ULTP2 at start of each month in Deg F/F (TSOPFG=1)
 *** x - x JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
 11 364 0.35 0.35 0.35 0.35 0.35 0.35 0.35 0.35 0.35 0.35 0.35
 END MON-ULTP2

MON-LGTP1
 *** <PLS > Value of LGTP1 at start of each month in Deg F (TSOPFG=1)
 *** x - x JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
 11 364 44. 45. 48. 51. 53. 55. 56. 56. 55. 53. 51. 47.
 END MON-LGTP1

MON-LGTP2
 *** <PLS > Value of LGTP2 at start of each month (F deg) (TSOPFG=0)
 *** x - x JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
 11 364 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25
 END MON-LGTP2

PSTEMP-TEMPS
 *** <PLS > Initial temperatures (deg F)
 *** x - x AIRTC SLTMP ULTMP LGTMP
 11 364 60. 57. 55. 55.
 END PSTEMP-TEMPS

PWT-PARM1
 *** <PLS > Flags for section PWTGAS
 *** x - x IDV ICV GDV GVC
 11 364 1 1 1 1
 END PWT-PARM1

PWT-PARM2
 *** Second group of PWTGAS parms
 *** <PLS > ELEV IDOXP ICO2P ADOXP ACO2P
 *** x - x (ft) (mg/l) (mg C/l) (mg/l) (mg C/l)
 ***TILL FOREST
 11 367. 0. 0. 0. 0.
 12 300. 0. 0. 0. 0.
 13 235. 0. 0. 0. 0.
 14 210. 0. 0. 0. 0.
 ***TILL PASTURE/
 21 404. 0. 0. 0. 0.
 22 369. 0. 0. 0. 0.
 23 319. 0. 0. 0. 0.
 24 273. 0. 0. 0. 0.
 ***TILL FOREST RESIDENTIAL
 31 367. 0. 0. 0. 0.
 32 300. 0. 0. 0. 0.
 33 235. 0. 0. 0. 0.
 34 210. 0. 0. 0. 0.
 ***TILL LOW DENSITY RES
 41 341. 0. 0. 0. 0.
 42 331. 0. 0. 0. 0.
 43 270. 0. 0. 0. 0.
 44 217. 0. 0. 0. 0.
 ***TILL HIGH DENSITY RES
 51 293. 0. 0. 0. 0.
 52 342. 0. 0. 0. 0.
 53 270. 0. 0. 0. 0.
 54 241. 0. 0. 0. 0.
 ***TILL COMMERCIAL INDUSTRIAL
 61 222. 0. 0. 0. 0.
 62 292. 0. 0. 0. 0.
 63 239. 0. 0. 0. 0.
 64 208. 0. 0. 0. 0.
 ***OUTWASH
 71 71. 0. 0. 0. 0.
 72 35. 0. 0. 0. 0.
 73 71. 0. 0. 0. 0.
 74 52. 0. 0. 0. 0.
 75 45. 0. 0. 0. 0.
 76 31. 0. 0. 0. 0.
 ***SATURATED
 81 118. 0. 0. 0. 0.
 82 168. 0. 0. 0. 0.
 83 118. 0. 0. 0. 0.
 84 163. 0. 0. 0. 0.

85	43.	0.	0.	0.	0.
86	39.	0.	0.	0.	0.
***TILL FOREST UPPER WATERSHED					
211	367.	0.	0.	0.	0.
212	300.	0.	0.	0.	0.
213	235.	0.	0.	0.	0.
214	210.	0.	0.	0.	0.
***TILL PASTURE					
221	404.	0.	0.	0.	0.
222	369.	0.	0.	0.	0.
223	319.	0.	0.	0.	0.
224	273.	0.	0.	0.	0.
***TILL FOREST RESIDENTIAL					
231	367.	0.	0.	0.	0.
232	300.	0.	0.	0.	0.
233	235.	0.	0.	0.	0.
234	210.	0.	0.	0.	0.
***TILL LOW DENSITY RESIDENTIAL					
241	341.	0.	0.	0.	0.
242	331.	0.	0.	0.	0.
243	270.	0.	0.	0.	0.
244	217.	0.	0.	0.	0.
***TILL HIGH DENSITY RESIDENTIAL					
251	293.	0.	0.	0.	0.
252	342.	0.	0.	0.	0.
253	270.	0.	0.	0.	0.
254	241.	0.	0.	0.	0.
***TILL COMMERCIAL INDUSTRIAL					
261	222.	0.	0.	0.	0.
262	292.	0.	0.	0.	0.
263	239.	0.	0.	0.	0.
264	208.	0.	0.	0.	0.
**OUTWASH					
271	71.	0.	0.	0.	0.
272	35.	0.	0.	0.	0.
273	71.	0.	0.	0.	0.
274	52.	0.	0.	0.	0.
275	45.	0.	0.	0.	0.
276	31.	0.	0.	0.	0.
***SATURATED					
281	118.	0.	0.	0.	0.
282	168.	0.	0.	0.	0.
283	118.	0.	0.	0.	0.
284	163.	0.	0.	0.	0.
285	43.	0.	0.	0.	0.
286	39.	0.	0.	0.	0.
***BEDROCK PERLNDS					
311	134.	0.	0.	0.	0.
312	108.	0.	0.	0.	0.
313	112.	0.	0.	0.	0.
314	117.	0.	0.	0.	0.
***BEDROCK PERLNDS					
321	136.	0.	0.	0.	0.
322	134.	0.	0.	0.	0.
323	165.	0.	0.	0.	0.
324	149.	0.	0.	0.	0.
***BEDROCK PERLNDS					
331	134.	0.	0.	0.	0.
332	108.	0.	0.	0.	0.
333	112.	0.	0.	0.	0.
334	117.	0.	0.	0.	0.
***BEDROCK PERLNDS					
341	178.	0.	0.	0.	0.
342	154.	0.	0.	0.	0.
343	146.	0.	0.	0.	0.
344	151.	0.	0.	0.	0.
***BEDROCK PERLNDS					
351	119.	0.	0.	0.	0.
352	138.	0.	0.	0.	0.
353	136.	0.	0.	0.	0.
354	147.	0.	0.	0.	0.
***BEDROCK PERLNDS					
361	79.	0.	0.	0.	0.
362	80.	0.	0.	0.	0.
363	111.	0.	0.	0.	0.
364	100.	0.	0.	0.	0.

END PWT-PARM2

MON-IFWDOX

```

*** <PLS > Value at start of each month for interflow DO concentration (mg/l)
*** x - x JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
    11  64 14. 14. 14. 13.5 13. 13. 13. 13. 13. 13.5 14. 14.
    76  86 14. 12. 10. 8.5  7.  5.  5.  5.  5.  6.  8. 10.
   211 264 14. 14. 14. 13.5 13. 13. 13. 13. 13. 13.5 14. 14.
   271 286 14. 12. 10.  9.  8.  7.  7.  7.  7.  8.  9. 10.
   311 364 14. 14. 14. 13.5 13. 13. 13. 13. 13. 13.5 14. 14.
END MON-IFWDOX
    
```

MON-IFWCO2

```

*** <PLS > Value at start of each month for interflow CO2 conc. (mg C/l)
*** x - x JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
    11 286 0.25 0.25 0.45 0.6 0.7 0.7 0.7 0.7 0.7 0.7 0.6 0.25
END MON-IFWCO2
    
```

MON-GRNDDOX

```

*** <PLS >Value at start of each month for groundwater DO concentration (mg/l)
*** x - x JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
    11  64 12. 12. 12. 12. 12. 12. 12. 12. 12. 12. 12. 12.
    71  86 12. 11.  9.  7.  5.  4.  4.  4.  4.  5.  7.  9.
   211 264 12. 12. 12. 12. 12. 12. 12. 12. 12. 12. 12. 12.
   271 286 12. 11.  9.  7.  5.  4.  4.  4.  4.  5.  7.  9.
   311 364 12. 12. 12. 12. 12. 12. 12. 12. 12. 12. 12. 12.
END MON-GRNDDOX
    
```

MON-GRNDCO2

```

*** <PLS >Value at start of each month for groundwater CO2 conc. (mg C/l)
*** x - x JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
    11  86 0.55 0.55 0.65 0.75 0.75 0.75 0.75 0.78 0.78 0.78 0.75 0.68
   211 364 0.5 0.5 0.6 0.7 0.7 0.7 0.7 0.72 0.72 0.72 0.7 0.63
END MON-GRNDCO2
    
```

PWT-GASES

```

***
*** <PLS >          Initial DO and CO2 concentrations
*** x - x          SODOX          SOCO2          IODOX          IOCO2          AODOX          AOCO2
*** x - x          (mg/l)         (mg C/l)         (mg/l)         (mg C/l)         (mg/l)         (mg C/l)
    11 364          6.             0.2            5.             0.5            5.             0.5
END PWT-GASES
    
```

NQUALS

```

*** <PLS >
*** x - xNQUAL
    11 364 9
END NQUALS
    
```

PQL-AD-FLAGS

```

***
*** < PLS>          Atmospheric Deposition Flags
*** x - x <F><C> <F><C> <F><C> <F><C> <F><C> <F><C> <F><C> <F><C> <F><C> <F><C>
    11 364 0 -1 0 -1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
END PQL-AD-FLAGS
    
```

QUAL-PROPS

```

*** <PLS > Identifiers and Flags
*** x - x          QUALID          QTID          QSD          VPFW          VPFS          QSO          VQO          QIFW          VIQC          QAGW          VAQC
    11 364NO2+NO3          LBS          0          0          0          2          1          1          3          1          3
END QUAL-PROPS
    
```

QUAL-INPUT

```

***
*** Storage on surface and nonseasonal parameters
***          SQO          POTFW          POTFS          ACQOP          SQOLIM          WSQOP          IOQC          AOQC
*** <PLS > qty/ac qty/ton qty/ton          qty/          qty/ac          in/hr          qty/ft3          qty/ft3
*** x - x          ac.day
    11 14          0.          0.          0.          0.0.000001          1.5          0.          0.
    21 24          0.          0.          0.          0.0.000001          0.5          0.          0.
    31 34          0.          0.          0.          0.0.000001          0.9          0.          0.
    41 64          0.          0.          0.          0.0.000001          0.5          0.          0.
    71          0.          0.          0.          0.0.000001          1.5          0.          0.
    72          0.          0.          0.          0.0.000001          0.5          0.          0.
    73          0.          0.          0.          0.0.000001          0.9          0.          0.
    74 76          0.          0.          0.          0.0.000001          0.5          0.          0.
    81          0.          0.          0.          0.0.000001          1.5          0.          0.
    82          0.          0.          0.          0.0.000001          0.5          0.          0.
    
```

```

83      0.      0.      0.      0.0.000001      0.9      0.      0.
84     86      0.      0.      0.      0.0.000001      0.5      0.      0.
211    214      0.      0.      0.      0.0.000001      1.5      0.      0.
221    224      0.      0.      0.      0.0.000001      0.5      0.      0.
231    234      0.      0.      0.      0.0.000001      0.9      0.      0.
241    264      0.      0.      0.      0.0.000001      0.5      0.      0.
271      0.      0.      0.      0.0.000001      1.5      0.      0.
272      0.      0.      0.      0.0.000001      0.5      0.      0.
273      0.      0.      0.      0.0.000001      0.9      0.      0.
274    276      0.      0.      0.      0.0.000001      0.5      0.      0.
281      0.      0.      0.      0.0.000001      1.5      0.      0.
282      0.      0.      0.      0.0.000001      0.5      0.      0.
283      0.      0.      0.      0.0.000001      0.9      0.      0.
284    286      0.      0.      0.      0.0.000001      0.5      0.      0.
311    314      0.      0.      0.      0.0.000001      1.5      0.      0.
321    324      0.      0.      0.      0.0.000001      0.5      0.      0.
331    334      0.      0.      0.      0.0.000001      0.9      0.      0.
341    364      0.      0.      0.      0.0.000001      0.5      0.      0.
END QUAL-INPUT

```

MON-ACCUM

*** <PLS > Value at start of each month for accum rate of QUALOF (lb/ac.day)

```

*** x - x JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
11  142.e-52.e-52.e-54.e-61.e-51.e-51.e-51.e-51.e-51.e-52.e-52.e-5
21  242.e-62.e-62.e-62.e-62.e-66.e-66.e-66.e-66.e-66.e-64.e-64.e-6
31  342.e-62.e-62.e-61.e-61.e-61.e-61.e-61.e-61.e-61.e-62.e-62.e-6
41  444.e-74.e-74.e-76.e-76.e-76.e-76.e-76.e-76.e-76.e-76.e-74.e-7
51  644.e-74.e-74.e-76.e-78.e-78.e-78.e-78.e-78.e-78.e-76.e-74.e-7
71  2.e-52.e-52.e-54.e-61.e-51.e-51.e-51.e-51.e-51.e-52.e-52.e-5
72  2.e-62.e-62.e-62.e-62.e-66.e-66.e-66.e-66.e-66.e-64.e-64.e-6
73  2.e-62.e-62.e-61.e-61.e-61.e-61.e-61.e-61.e-61.e-61.e-62.e-6
74  4.e-74.e-74.e-76.e-76.e-76.e-76.e-76.e-76.e-76.e-76.e-74.e-7
75  764.e-74.e-74.e-76.e-78.e-78.e-78.e-78.e-78.e-78.e-76.e-74.e-7
81  2.e-52.e-52.e-54.e-61.e-51.e-51.e-51.e-51.e-51.e-52.e-52.e-5
82  2.e-62.e-62.e-62.e-62.e-66.e-66.e-66.e-66.e-66.e-64.e-64.e-6
83  2.e-62.e-62.e-61.e-61.e-61.e-61.e-61.e-61.e-61.e-61.e-62.e-6
84  4.e-74.e-74.e-76.e-76.e-76.e-76.e-76.e-76.e-76.e-76.e-74.e-7
85  864.e-74.e-74.e-76.e-78.e-78.e-78.e-78.e-78.e-78.e-76.e-74.e-7
211 2142.e-52.e-52.e-54.e-61.e-51.e-51.e-51.e-51.e-51.e-52.e-52.e-5
221 2242.e-62.e-62.e-62.e-62.e-66.e-66.e-66.e-66.e-66.e-64.e-64.e-6
231 2342.e-62.e-62.e-61.e-61.e-61.e-61.e-61.e-61.e-61.e-61.e-62.e-6
241 2444.e-74.e-74.e-76.e-76.e-76.e-76.e-76.e-76.e-76.e-76.e-74.e-7
251 2644.e-74.e-74.e-76.e-78.e-78.e-78.e-78.e-78.e-78.e-76.e-74.e-7
271 2.e-52.e-52.e-54.e-61.e-51.e-51.e-51.e-51.e-51.e-52.e-52.e-5
272 2.e-62.e-62.e-62.e-62.e-66.e-66.e-66.e-66.e-66.e-64.e-64.e-6
273 2.e-62.e-62.e-61.e-61.e-61.e-61.e-61.e-61.e-61.e-61.e-62.e-6
274 4.e-74.e-74.e-76.e-76.e-76.e-76.e-76.e-76.e-76.e-76.e-74.e-7
275 2764.e-74.e-74.e-76.e-78.e-78.e-78.e-78.e-78.e-78.e-76.e-74.e-7
281 2.e-52.e-52.e-54.e-61.e-51.e-51.e-51.e-51.e-51.e-52.e-52.e-5
282 2.e-62.e-62.e-62.e-62.e-66.e-66.e-66.e-66.e-66.e-64.e-64.e-6
283 2.e-62.e-62.e-61.e-61.e-61.e-61.e-61.e-61.e-61.e-61.e-62.e-6
284 4.e-74.e-74.e-76.e-76.e-76.e-76.e-76.e-76.e-76.e-76.e-74.e-7
285 2864.e-74.e-74.e-76.e-78.e-78.e-78.e-78.e-78.e-78.e-76.e-74.e-7
311 3142.e-52.e-52.e-54.e-61.e-51.e-51.e-51.e-51.e-51.e-52.e-52.e-5
321 3242.e-62.e-62.e-62.e-62.e-66.e-66.e-66.e-66.e-66.e-64.e-64.e-6
331 3342.e-62.e-62.e-61.e-61.e-61.e-61.e-61.e-61.e-61.e-61.e-62.e-6
341 3444.e-74.e-74.e-76.e-76.e-76.e-76.e-76.e-76.e-76.e-76.e-74.e-7
351 3644.e-74.e-74.e-76.e-78.e-78.e-78.e-78.e-78.e-78.e-76.e-74.e-7
END MON-ACCUM

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MON-SQOLIM

*** <PLS > Value at start of month for limiting storage of QUALOF (lb/ac)

```

*** x - x JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
11  144.e-54.e-54.e-51.e-52.e-52.e-52.e-52.e-52.e-52.e-57.e-56.e-5
21  241.e-51.e-51.e-51.e-52.e-53.e-53.e-53.e-53.e-53.e-52.e-51.e-5
31  344.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-6
41  442.e-62.e-62.e-62.e-62.e-62.e-62.e-62.e-62.e-62.e-62.e-62.e-6
51  542.e-62.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-6
61  644.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-6
71  4.e-54.e-54.e-51.e-52.e-52.e-52.e-52.e-52.e-52.e-57.e-56.e-5
72  1.e-51.e-51.e-51.e-52.e-53.e-53.e-53.e-53.e-53.e-52.e-51.e-5
73  4.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-6
74  2.e-62.e-62.e-62.e-62.e-62.e-62.e-62.e-62.e-62.e-62.e-62.e-6
75  2.e-62.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-6
76  4.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-6
81  4.e-54.e-54.e-51.e-52.e-52.e-52.e-52.e-52.e-52.e-57.e-56.e-5

```

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82      1.e-51.e-51.e-51.e-52.e-53.e-53.e-53.e-53.e-53.e-52.e-51.e-5
83      4.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-6
84      2.e-62.e-62.e-62.e-62.e-62.e-62.e-62.e-62.e-62.e-62.e-62.e-6
85      2.e-62.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-6
86      4.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-6
211    2144.e-54.e-54.e-51.e-52.e-52.e-52.e-52.e-52.e-52.e-52.e-57.e-56.e-5
221    2241.e-51.e-51.e-51.e-52.e-53.e-53.e-53.e-53.e-53.e-52.e-51.e-5
231    2344.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-6
241    2442.e-62.e-62.e-62.e-62.e-62.e-62.e-62.e-62.e-62.e-62.e-62.e-6
251    2542.e-62.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-6
261    2644.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-6
271      4.e-54.e-54.e-51.e-52.e-52.e-52.e-52.e-52.e-52.e-52.e-57.e-56.e-5
272      1.e-51.e-51.e-51.e-52.e-53.e-53.e-53.e-53.e-53.e-52.e-51.e-5
273      4.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-6
274      2.e-62.e-62.e-62.e-62.e-62.e-62.e-62.e-62.e-62.e-62.e-62.e-6
275      2.e-62.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-6
276      4.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-6
281      4.e-54.e-54.e-51.e-52.e-52.e-52.e-52.e-52.e-52.e-57.e-56.e-5
282      1.e-51.e-51.e-51.e-52.e-53.e-53.e-53.e-53.e-53.e-52.e-51.e-5
283      4.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-6
284      2.e-62.e-62.e-62.e-62.e-62.e-62.e-62.e-62.e-62.e-62.e-62.e-6
285      2.e-62.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-6
286      4.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-6
311    3144.e-54.e-54.e-51.e-52.e-52.e-52.e-52.e-52.e-52.e-57.e-56.e-5
321    3241.e-51.e-51.e-51.e-52.e-53.e-53.e-53.e-53.e-53.e-52.e-51.e-5
331    3344.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-6
341    3442.e-62.e-62.e-62.e-62.e-62.e-62.e-62.e-62.e-62.e-62.e-62.e-6
351    3542.e-62.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-6
361    3644.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-64.e-6
END MON-SQOLIM

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MON-IFLW-CONC

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*** <PLS > Conc of QUAL in interflow outflow for each month (qty/ft3)
*** x - x JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
11 140.8250.8250.7020.4320.3780.3780.3780.3780.3780.3780.7150.715
21 241.3471.424 1.08 0.9 0.72 0.72 0.72 0.72 0.720.7561.1551.155
31 341.1441.1440.756 0.540.3780.3780.3780.3780.3780.4321.0011.001
41 441.2151.215 0.810.5940.3780.3780.3780.3780.3780.4321.0721.072
51 54 1.98 1.981.3441.008 0.84 0.84 0.84 0.84 0.84 0.84 1.76 1.76
61 64 1.32 1.321.0081.0081.0081.0081.0081.0081.0081.008 1.32 1.32
71 0.8250.8250.7020.4320.3780.3780.3780.3780.3780.3780.7150.715
72 1.3471.424 1.08 0.9 0.72 0.72 0.72 0.72 0.720.7561.1551.155
73 1.1441.1440.756 0.540.3780.3780.3780.3780.3780.4321.0011.001
74 1.2151.215 0.810.5940.3780.3780.3780.3780.3780.4321.0721.072
75 1.98 1.981.3441.008 0.84 0.84 0.84 0.84 0.84 0.84 1.76 1.76
76 1.32 1.321.0081.0081.0081.0081.0081.0081.0081.008 1.32 1.32
81 0.8250.8250.7020.4320.3780.3780.3780.3780.3780.3780.7150.715
82 1.3471.424 1.08 0.9 0.72 0.72 0.72 0.72 0.720.7561.1551.155
83 1.1441.1440.756 0.540.3780.3780.3780.3780.3780.4321.0011.001
84 1.2151.215 0.810.5940.3780.3780.3780.3780.3780.4321.0721.072
85 1.98 1.981.3441.008 0.84 0.84 0.84 0.84 0.84 0.84 1.76 1.76
86 1.32 1.321.0081.0081.0081.0081.0081.0081.0081.008 1.32 1.32
211 2140.8250.8250.7020.4320.3780.3780.3780.3780.3780.3780.7150.715
221 2241.3471.424 1.08 0.9 0.72 0.72 0.72 0.72 0.720.7561.1551.155
231 2341.1441.1440.756 0.540.3780.3780.3780.3780.3780.4321.0011.001
241 2441.2151.215 0.810.5940.3780.3780.3780.3780.3780.4321.0721.072
251 254 1.98 1.981.3441.008 0.84 0.84 0.84 0.84 0.84 0.84 1.76 1.76
261 264 1.32 1.321.0081.0081.0081.0081.0081.0081.0081.008 1.32 1.32
271 0.8250.8250.7020.4320.3780.3780.3780.3780.3780.3780.7150.715
272 1.3471.424 1.08 0.9 0.72 0.72 0.72 0.72 0.720.7561.1551.155
273 1.1441.1440.756 0.540.3780.3780.3780.3780.3780.4321.0011.001
274 1.2151.215 0.810.5940.3780.3780.3780.3780.3780.4321.0721.072
275 1.98 1.981.3441.008 0.84 0.84 0.84 0.84 0.84 0.84 1.76 1.76
276 1.32 1.321.0081.0081.0081.0081.0081.0081.0081.008 1.32 1.32
281 0.8250.8250.7020.4320.3780.3780.3780.3780.3780.3780.7150.715
282 1.3471.424 1.08 0.9 0.72 0.72 0.72 0.72 0.720.7561.1551.155
283 1.1441.1440.756 0.540.3780.3780.3780.3780.3780.4321.0011.001
284 1.2151.215 0.810.5940.3780.3780.3780.3780.3780.4321.0721.072
285 1.98 1.981.3441.008 0.84 0.84 0.84 0.84 0.84 0.84 1.76 1.76
286 1.32 1.321.0081.0081.0081.0081.0081.0081.0081.008 1.32 1.32
311 3140.8250.8250.7020.4320.3780.3780.3780.3780.3780.3780.7150.715
321 3241.3471.424 1.08 0.9 0.72 0.72 0.72 0.72 0.720.7561.1551.155
331 3341.1441.1440.756 0.540.3780.3780.3780.3780.3780.4321.0011.001
341 3441.2151.215 0.810.5940.3780.3780.3780.3780.3780.4321.0721.072
351 354 1.98 1.981.3441.008 0.84 0.84 0.84 0.84 0.84 0.84 1.76 1.76
361 364 1.32 1.321.0081.0081.0081.0081.0081.0081.0081.008 1.32 1.32

```

END MON-IFLW-CONC

MON-GRND-CONC

*** <PLS > Value at start of month for conc of QUAL in groundwater (qty/ft3)

*** x - x JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

11	140.	2420.	2420.	2160.	2160.	2160.	2160.	2160.	2160.	2160.	216	0.22	0.22
21	241.	4081.	4081.	3821.	3821.	3821.	3821.	3821.	3821.	3821.	382	1.1	1.1
31	340.	2640.	2640.	2520.	2520.	2520.	2520.	2520.	2520.	2520.	2520.	2420.	242
41	440.	2860.	2860.	2880.	2880.	2880.	2880.	2880.	2880.	2880.	2880.	2640.	264
51	54.	4004.	4004.	4224.	4224.	4224.	4224.	4224.	4224.	4224.	4224.	3696.	3696
61	64.	8008.	8008.	8448.	8448.	8448.	8448.	8448.	8448.	8448.	8448.	7392.	7392
71	0.	2420.	2420.	2160.	2160.	2160.	2160.	2160.	2160.	2160.	216	0.22	0.22
72	1.	4081.	4081.	3821.	3821.	3821.	3821.	3821.	3821.	3821.	382	1.1	1.1
73	0.	2640.	2640.	2520.	2520.	2520.	2520.	2520.	2520.	2520.	2520.	2420.	242
74	0.	2860.	2860.	2880.	2880.	2880.	2880.	2880.	2880.	2880.	2880.	2640.	264
75	.4004.	4004.	4224.	4224.	4224.	4224.	4224.	4224.	4224.	4224.	4224.	3696.	3696
76	.8008.	8008.	8448.	8448.	8448.	8448.	8448.	8448.	8448.	8448.	8448.	7392.	7392
81	0.	2420.	2420.	2160.	2160.	2160.	2160.	2160.	2160.	2160.	216	0.22	0.22
82	1.	4081.	4081.	3821.	3821.	3821.	3821.	3821.	3821.	3821.	382	1.1	1.1
83	0.	2640.	2640.	2520.	2520.	2520.	2520.	2520.	2520.	2520.	2520.	2420.	242
84	0.	2860.	2860.	2880.	2880.	2880.	2880.	2880.	2880.	2880.	2880.	2640.	264
85	.4004.	4004.	4224.	4224.	4224.	4224.	4224.	4224.	4224.	4224.	4224.	3696.	3696
86	.8008.	8008.	8448.	8448.	8448.	8448.	8448.	8448.	8448.	8448.	8448.	7392.	7392
211	2140.	2420.	2420.	2160.	2160.	2160.	2160.	2160.	2160.	2160.	216	0.22	0.22
221	2241.	4081.	4081.	3821.	3821.	3821.	3821.	3821.	3821.	3821.	382	1.1	1.1
231	2340.	2640.	2640.	2520.	2520.	2520.	2520.	2520.	2520.	2520.	2520.	2420.	242
241	2440.	2860.	2860.	2880.	2880.	2880.	2880.	2880.	2880.	2880.	2880.	2640.	264
251	254.	4004.	4004.	4224.	4224.	4224.	4224.	4224.	4224.	4224.	4224.	3696.	3696
261	264.	8008.	8008.	8448.	8448.	8448.	8448.	8448.	8448.	8448.	8448.	7392.	7392
271	0.	2420.	2420.	2160.	2160.	2160.	2160.	2160.	2160.	2160.	216	0.22	0.22
272	1.	4081.	4081.	3821.	3821.	3821.	3821.	3821.	3821.	3821.	382	1.1	1.1
273	0.	2640.	2640.	2520.	2520.	2520.	2520.	2520.	2520.	2520.	2520.	2420.	242
274	0.	2860.	2860.	2880.	2880.	2880.	2880.	2880.	2880.	2880.	2880.	2640.	264
275	.4004.	4004.	4224.	4224.	4224.	4224.	4224.	4224.	4224.	4224.	4224.	3696.	3696
276	.8008.	8008.	8448.	8448.	8448.	8448.	8448.	8448.	8448.	8448.	8448.	7392.	7392
281	0.	2420.	2420.	2160.	2160.	2160.	2160.	2160.	2160.	2160.	216	0.22	0.22
282	1.	4081.	4081.	3821.	3821.	3821.	3821.	3821.	3821.	3821.	382	1.1	1.1
283	0.	2640.	2640.	2520.	2520.	2520.	2520.	2520.	2520.	2520.	2520.	2420.	242
284	0.	2860.	2860.	2880.	2880.	2880.	2880.	2880.	2880.	2880.	2880.	2640.	264
285	.4004.	4004.	4224.	4224.	4224.	4224.	4224.	4224.	4224.	4224.	4224.	3696.	3696
286	.8008.	8008.	8448.	8448.	8448.	8448.	8448.	8448.	8448.	8448.	8448.	7392.	7392
311	3140.	2420.	2420.	2160.	2160.	2160.	2160.	2160.	2160.	2160.	216	0.22	0.22
321	3241.	4081.	4081.	3821.	3821.	3821.	3821.	3821.	3821.	3821.	382	1.1	1.1
331	3340.	2640.	2640.	2520.	2520.	2520.	2520.	2520.	2520.	2520.	2520.	2420.	242
341	3440.	2860.	2860.	2880.	2880.	2880.	2880.	2880.	2880.	2880.	2880.	2640.	264
351	354.	4004.	4004.	4224.	4224.	4224.	4224.	4224.	4224.	4224.	4224.	3696.	3696
361	364.	8008.	8008.	8448.	8448.	8448.	8448.	8448.	8448.	8448.	8448.	7392.	7392

END MON-GRND-CONC

QUAL-PROPS

*** <PLS > Identifiers and Flags

*** x - x QUALID QTID QSD VPFW VPFS QSO VQO QIFW VIQC QAGW VAQC

11	364NH3		LBS	0	0	0	2	1	1	3	1	3
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END QUAL-PROPS

QUAL-INPUT

*** Storage on surface and nonseasonal parameters

*** SQO POTFW POTFS ACQOP SQOLIM WSQOP IOQC AOQC

*** <PLS > qty/ac qty/ton qty/ton qty/ ac.day qty/ac in/hr qty/ft3 qty/ft3

*** x - x

11	14	0.	0.	0.	0.0.000001	1.5	0.	0.
21	24	0.	0.	0.	0.0.000001	0.5	0.	0.
31	34	0.	0.	0.	0.0.000001	0.9	0.	0.
41	64	0.	0.	0.	0.0.000001	0.5	0.	0.
71		0.	0.	0.	0.0.000001	1.5	0.	0.
72		0.	0.	0.	0.0.000001	0.5	0.	0.
73		0.	0.	0.	0.0.000001	0.9	0.	0.
74	76	0.	0.	0.	0.0.000001	0.5	0.	0.
81		0.	0.	0.	0.0.000001	1.5	0.	0.
82		0.	0.	0.	0.0.000001	0.5	0.	0.
83		0.	0.	0.	0.0.000001	0.9	0.	0.
84	86	0.	0.	0.	0.0.000001	0.5	0.	0.
211	214	0.	0.	0.	0.0.000001	1.5	0.	0.
221	224	0.	0.	0.	0.0.000001	0.5	0.	0.
231	234	0.	0.	0.	0.0.000001	0.9	0.	0.
241	264	0.	0.	0.	0.0.000001	0.5	0.	0.

Black/Springbrook UCI File

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271      0.      0.      0.      0.0.000001      1.5      0.      0.
272      0.      0.      0.      0.0.000001      0.5      0.      0.
273      0.      0.      0.      0.0.000001      0.9      0.      0.
274 276      0.      0.      0.      0.0.000001      0.5      0.      0.
281      0.      0.      0.      0.0.000001      1.5      0.      0.
282      0.      0.      0.      0.0.000001      0.5      0.      0.
283      0.      0.      0.      0.0.000001      0.9      0.      0.
284 286      0.      0.      0.      0.0.000001      0.5      0.      0.
311 314      0.      0.      0.      0.0.000001      1.5      0.      0.
321 324      0.      0.      0.      0.0.000001      0.5      0.      0.
331 334      0.      0.      0.      0.0.000001      0.9      0.      0.
341 364      0.      0.      0.      0.0.000001      0.5      0.      0.
END QUAL-INPUT

```

MON-ACCUM

*** <PLS > Value at start of each month for accum rate of QUALOF (lb/ac.day)

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*** x - x JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
11 140.0030.0030.0030.0030.0060.0060.0060.0060.0060.0060.0030.003
21 240.0030.003.00450.0060.0120.0120.0120.0120.0120.012.00060.003
31 340.0060.0060.006.00750.0150.0150.0150.0150.0150.015.00750.006
41 440.0090.0090.0090.0120.0240.0240.0240.0240.0240.0240.0120.006
51 540.0150.0150.015 0.03 0.06 0.06 0.06 0.06 0.06 0.06 0.030.015
61 64 0.06 0.06 0.06 0.09 0.18 0.18 0.18 0.18 0.18 0.18 0.09 0.06
71 0.0030.0030.0030.0030.0060.0060.0060.0060.0060.0060.0030.003
72 0.0030.003.00450.0060.0120.0120.0120.0120.0120.012.00060.003
73 0.0060.0060.006.00750.0150.0150.0150.0150.0150.015.00750.006
74 0.0090.0090.0090.0120.0240.0240.0240.0240.0240.0240.0120.006
75 0.0150.0150.015 0.03 0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.030.015
76 0.06 0.06 0.06 0.09 0.18 0.18 0.18 0.18 0.18 0.18 0.18 0.09 0.06
81 0.0030.0030.0030.0030.0060.0060.0060.0060.0060.0060.0030.003
82 0.0030.003.00450.0060.0120.0120.0120.0120.0120.012.00060.003
83 0.0060.0060.006.00750.0150.0150.0150.0150.0150.015.00750.006
84 0.0090.0090.0090.0120.0240.0240.0240.0240.0240.0240.0120.006
85 0.0150.0150.015 0.03 0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.030.015
86 0.06 0.06 0.06 0.09 0.18 0.18 0.18 0.18 0.18 0.18 0.18 0.09 0.06
211 2140.0030.0030.0030.0030.0060.0060.0060.0060.0060.0060.0030.003
221 2240.0030.003.00450.0060.0120.0120.0120.0120.0120.012.00060.003
231 2340.0060.0060.006.00750.0150.0150.0150.0150.0150.015.00750.006
241 2440.0090.0090.0090.0120.0240.0240.0240.0240.0240.0240.0120.006
251 2540.0150.0150.015 0.03 0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.030.015
261 264 0.06 0.06 0.06 0.09 0.18 0.18 0.18 0.18 0.18 0.18 0.18 0.09 0.06
271 0.0030.0030.0030.0030.0060.0060.0060.0060.0060.0060.0030.003
272 0.0030.003.00450.0060.0120.0120.0120.0120.0120.012.00060.003
273 0.0060.0060.006.00750.0150.0150.0150.0150.0150.015.00750.006
274 0.0090.0090.0090.0120.0240.0240.0240.0240.0240.0240.0120.006
275 0.0150.0150.015 0.03 0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.030.015
276 0.06 0.06 0.06 0.09 0.18 0.18 0.18 0.18 0.18 0.18 0.18 0.09 0.06
281 0.0030.0030.0030.0030.0060.0060.0060.0060.0060.0060.0030.003
282 0.0030.003.00450.0060.0120.0120.0120.0120.0120.012.00060.003
283 0.0060.0060.006.00750.0150.0150.0150.0150.0150.015.00750.006
284 0.0090.0090.0090.0120.0240.0240.0240.0240.0240.0240.0120.006
285 0.0150.0150.015 0.03 0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.030.015
286 0.06 0.06 0.06 0.09 0.18 0.18 0.18 0.18 0.18 0.18 0.18 0.09 0.06
311 3140.0030.0030.0030.0030.0060.0060.0060.0060.0060.0060.0030.003
321 3240.0030.003.00450.0060.0120.0120.0120.0120.0120.012.00060.003
331 3340.0060.0060.006.00750.0150.0150.0150.0150.0150.015.00750.006
341 3440.0090.0090.0090.0120.0240.0240.0240.0240.0240.0240.0120.006
351 3540.0150.0150.015 0.03 0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.030.015
361 364 0.06 0.06 0.06 0.09 0.18 0.18 0.18 0.18 0.18 0.18 0.18 0.09 0.06
END MON-ACCUM

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MON-SQOLIM

*** <PLS > Value at start of month for limiting storage of QUALOF (lb/ac)

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*** x - x JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
11 140.0120.0120.0150.015 0.03 0.03 0.03 0.03 0.03 0.030.0150.012
21 24 0.03 0.03 0.03 0.03 0.06 0.06 0.06 0.06 0.06 0.060.003 0.03
31 34 0.03 0.03 0.03 0.03 0.06 0.06 0.06 0.06 0.06 0.06 0.03 0.03
41 44 0.06 0.06 0.06 0.06 0.12 0.12 0.12 0.12 0.12 0.12 0.06 0.06
51 54 0.15 0.15 0.15 0.18 0.36 0.36 0.36 0.36 0.36 0.36 0.18 0.15
61 64 0.54 0.54 0.54 0.6 1.2 1.2 1.2 1.2 1.2 1.2 0.54 0.54
71 0.0120.0120.0150.015 0.03 0.03 0.03 0.03 0.03 0.030.030.0150.012
72 0.03 0.03 0.03 0.03 0.06 0.06 0.06 0.06 0.06 0.060.003 0.03
73 0.03 0.03 0.03 0.03 0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.03 0.03
74 0.06 0.06 0.06 0.06 0.12 0.12 0.12 0.12 0.12 0.12 0.06 0.06
75 0.15 0.15 0.15 0.18 0.36 0.36 0.36 0.36 0.36 0.36 0.18 0.15
76 0.54 0.54 0.54 0.6 1.2 1.2 1.2 1.2 1.2 1.2 0.54 0.54

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81      0.0120.0120.0150.015 0.03 0.03 0.03 0.03 0.03 0.030.0150.012
82      0.03 0.03 0.03 0.03 0.06 0.06 0.06 0.06 0.06 0.060.003 0.03
83      0.03 0.03 0.03 0.03 0.06 0.06 0.06 0.06 0.06 0.06 0.03 0.03
84      0.06 0.06 0.06 0.06 0.12 0.12 0.12 0.12 0.12 0.12 0.06 0.06
85      0.15 0.15 0.15 0.18 0.36 0.36 0.36 0.36 0.36 0.36 0.18 0.15
86      0.54 0.54 0.54 0.6 1.2 1.2 1.2 1.2 1.2 1.2 0.54 0.54
211    2140.0120.0120.0150.015 0.03 0.03 0.03 0.03 0.03 0.030.0150.012
221    224 0.03 0.03 0.03 0.03 0.06 0.06 0.06 0.06 0.06 0.060.003 0.03
231    234 0.03 0.03 0.03 0.03 0.06 0.06 0.06 0.06 0.06 0.06 0.03 0.03
241    244 0.06 0.06 0.06 0.06 0.12 0.12 0.12 0.12 0.12 0.12 0.06 0.06
251    254 0.15 0.15 0.15 0.18 0.36 0.36 0.36 0.36 0.36 0.36 0.18 0.15
261    264 0.54 0.54 0.54 0.6 1.2 1.2 1.2 1.2 1.2 1.2 0.54 0.54
271      0.0120.0120.0150.015 0.03 0.03 0.03 0.03 0.03 0.030.0150.012
272      0.03 0.03 0.03 0.03 0.06 0.06 0.06 0.06 0.06 0.060.003 0.03
273      0.03 0.03 0.03 0.03 0.06 0.06 0.06 0.06 0.06 0.06 0.03 0.03
274      0.06 0.06 0.06 0.06 0.12 0.12 0.12 0.12 0.12 0.12 0.06 0.06
275      0.15 0.15 0.15 0.18 0.36 0.36 0.36 0.36 0.36 0.36 0.18 0.15
276      0.54 0.54 0.54 0.6 1.2 1.2 1.2 1.2 1.2 1.2 0.54 0.54
281      0.0120.0120.0150.015 0.03 0.03 0.03 0.03 0.03 0.030.0150.012
282      0.03 0.03 0.03 0.03 0.06 0.06 0.06 0.06 0.06 0.060.003 0.03
283      0.03 0.03 0.03 0.03 0.06 0.06 0.06 0.06 0.06 0.06 0.03 0.03
284      0.06 0.06 0.06 0.06 0.12 0.12 0.12 0.12 0.12 0.12 0.06 0.06
285      0.15 0.15 0.15 0.18 0.36 0.36 0.36 0.36 0.36 0.36 0.18 0.15
286      0.54 0.54 0.54 0.6 1.2 1.2 1.2 1.2 1.2 1.2 0.54 0.54
311    3140.0120.0120.0150.015 0.03 0.03 0.03 0.03 0.03 0.030.0150.012
321    324 0.03 0.03 0.03 0.03 0.06 0.06 0.06 0.06 0.06 0.060.003 0.03
331    334 0.03 0.03 0.03 0.03 0.06 0.06 0.06 0.06 0.06 0.06 0.03 0.03
341    344 0.06 0.06 0.06 0.06 0.12 0.12 0.12 0.12 0.12 0.12 0.06 0.06
351    354 0.15 0.15 0.15 0.18 0.36 0.36 0.36 0.36 0.36 0.36 0.18 0.15
361    364 0.54 0.54 0.54 0.6 1.2 1.2 1.2 1.2 1.2 1.2 0.54 0.54
END MON-SQOLIM

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MON-IFLW-CONC

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*** <PLS > Conc of QUAL in interflow outflow for each month (qty/ft3)
*** x - x JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
11 14.0003.00031.e-41.e-41.e-41.e-41.e-41.e-4.0002.0002.0003
21 24.0019.0019.0011.0011.0011.0011.0011.0011.0011.0011.0011.0019
31 34.0003.0003.0002.0002.0002.0002.0002.0002.0002.0002.0002.0003
41 44.0004.0004.0002.0002.0002.0002.0002.0002.0002.0002.0003.0004
51 54.0004.0004.0002.0002.0002.0002.0002.0002.0002.0003.0003.0004
61 64.0008.0008.0005.0005.0005.0005.0005.0005.0005.0005.0005.0008
71 .0003.00031.e-41.e-41.e-41.e-41.e-41.e-41.e-4.0002.0002.0003
72 .0019.0019.0011.0011.0011.0011.0011.0011.0011.0011.0011.0019
73 .0003.0003.0002.0002.0002.0002.0002.0002.0002.0002.0002.0003
74 .0004.0004.0002.0002.0002.0002.0002.0002.0002.0002.0003.0004
75 .0004.0004.0002.0002.0002.0002.0002.0002.0002.0003.0003.0004
76 .0008.0008.0005.0005.0005.0005.0005.0005.0005.0005.0005.0008
81 .0003.00031.e-41.e-41.e-41.e-41.e-41.e-41.e-4.0002.0002.0003
82 .0019.0019.0011.0011.0011.0011.0011.0011.0011.0011.0011.0019
83 .0003.0003.0002.0002.0002.0002.0002.0002.0002.0002.0002.0003
84 .0004.0004.0002.0002.0002.0002.0002.0002.0002.0002.0003.0004
85 .0004.0004.0002.0002.0002.0002.0002.0002.0002.0003.0003.0004
86 .0008.0008.0005.0005.0005.0005.0005.0005.0005.0005.0005.0008
211 214.0003.00031.e-41.e-41.e-41.e-41.e-41.e-41.e-4.0002.0002.0003
221 224.0019.0019.0011.0011.0011.0011.0011.0011.0011.0011.0019
231 234.0003.0003.0002.0002.0002.0002.0002.0002.0002.0002.0002.0003
241 244.0004.0004.0002.0002.0002.0002.0002.0002.0002.0002.0003.0004
251 254.0004.0004.0002.0002.0002.0002.0002.0002.0002.0003.0003.0004
261 264.0008.0008.0005.0005.0005.0005.0005.0005.0005.0005.0005.0008
271 .0003.00031.e-41.e-41.e-41.e-41.e-41.e-41.e-4.0002.0002.0003
272 .0019.0019.0011.0011.0011.0011.0011.0011.0011.0011.0011.0019
273 .0003.0003.0002.0002.0002.0002.0002.0002.0002.0002.0002.0003
274 .0004.0004.0002.0002.0002.0002.0002.0002.0002.0002.0003.0004
275 .0004.0004.0002.0002.0002.0002.0002.0002.0002.0003.0003.0004
276 .0008.0008.0005.0005.0005.0005.0005.0005.0005.0005.0005.0008
281 .0003.00031.e-41.e-41.e-41.e-41.e-41.e-41.e-4.0002.0002.0003
282 .0019.0019.0011.0011.0011.0011.0011.0011.0011.0011.0011.0019
283 .0003.0003.0002.0002.0002.0002.0002.0002.0002.0002.0002.0003
284 .0004.0004.0002.0002.0002.0002.0002.0002.0002.0002.0003.0004
285 .0004.0004.0002.0002.0002.0002.0002.0002.0002.0003.0003.0004
286 .0008.0008.0005.0005.0005.0005.0005.0005.0005.0005.0005.0008
311 314.0003.00031.e-41.e-41.e-41.e-41.e-41.e-41.e-4.0002.0002.0003
321 324.0019.0019.0011.0011.0011.0011.0011.0011.0011.0011.0019
331 334.0003.0003.0002.0002.0002.0002.0002.0002.0002.0002.0002.0003
341 344.0004.0004.0002.0002.0002.0002.0002.0002.0002.0002.0003.0004
351 354.0004.0004.0002.0002.0002.0002.0002.0002.0002.0003.0003.0004

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361 364.0008.0008.0005.0005.0005.0005.0005.0005.0005.0005.0005.0008
 END MON-IFLW-CONC

MON-GRND-CONC

*** <PLS > Value at start of month for conc of QUAL in groundwater (qty/ft3)
 *** x - x JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
 11 14.0063.0032.0078.0078.0078.0078.0078.0078.0078.0088.0098.0063
 21 24.0202.0202.0353.0353.0353.0353.0353.0353.0353.0353.0353.0202
 31 34.0049.0049.0067.0067.0067.0067.0067.0067.0076.0084.0084.0049
 41 44.0074.0074.0084.0084.0084.0084.0084.0084.0168.0176.0168.0088
 51 54.0074.0074.0168.0168.0168.0168.0168.0168.0168.0168.0168.0098
 61 640.0420.042.0882.0882.0882.0882.0882.0882.0882.0882.0882.042
 71 .0063.0032.0078.0078.0078.0078.0078.0078.0078.0088.0098.0063
 72 .0202.0202.0353.0353.0353.0353.0353.0353.0353.0353.0353.0202
 73 .0049.0049.0067.0067.0067.0067.0067.0067.0076.0084.0084.0049
 74 .0074.0074.0084.0084.0084.0084.0084.0084.0168.0176.0168.0088
 75 .0074.0074.0168.0168.0168.0168.0168.0168.0168.0168.0168.0098
 76 0.0420.042.0882.0882.0882.0882.0882.0882.0882.0882.0882.042
 81 .0063.0032.0078.0078.0078.0078.0078.0078.0078.0088.0098.0063
 82 .0202.0202.0353.0353.0353.0353.0353.0353.0353.0353.0353.0202
 83 .0049.0049.0067.0067.0067.0067.0067.0067.0076.0084.0084.0049
 84 .0074.0074.0084.0084.0084.0084.0084.0084.0168.0176.0168.0088
 85 .0074.0074.0168.0168.0168.0168.0168.0168.0168.0168.0168.0098
 86 0.0420.042.0882.0882.0882.0882.0882.0882.0882.0882.0882.042
 211 214.0063.0032.0078.0078.0078.0078.0078.0078.0078.0088.0098.0063
 221 224.0202.0202.0353.0353.0353.0353.0353.0353.0353.0353.0202
 231 234.0049.0049.0067.0067.0067.0067.0067.0067.0076.0084.0084.0049
 241 244.0074.0074.0084.0084.0084.0084.0084.0084.0168.0176.0168.0088
 251 254.0074.0074.0168.0168.0168.0168.0168.0168.0168.0168.0168.0098
 261 2640.0420.042.0882.0882.0882.0882.0882.0882.0882.0882.0882.042
 271 .0063.0032.0078.0078.0078.0078.0078.0078.0078.0088.0098.0063
 272 .0202.0202.0353.0353.0353.0353.0353.0353.0353.0353.0353.0202
 273 .0049.0049.0067.0067.0067.0067.0067.0067.0076.0084.0084.0049
 274 .0074.0074.0084.0084.0084.0084.0084.0084.0168.0176.0168.0088
 275 .0074.0074.0168.0168.0168.0168.0168.0168.0168.0168.0168.0098
 276 0.0420.042.0882.0882.0882.0882.0882.0882.0882.0882.0882.042
 281 .0063.0032.0078.0078.0078.0078.0078.0078.0078.0088.0098.0063
 282 .0202.0202.0353.0353.0353.0353.0353.0353.0353.0353.0353.0202
 283 .0049.0049.0067.0067.0067.0067.0067.0067.0076.0084.0084.0049
 284 .0074.0074.0084.0084.0084.0084.0084.0084.0168.0176.0168.0088
 285 .0074.0074.0168.0168.0168.0168.0168.0168.0168.0168.0168.0098
 286 0.0420.042.0882.0882.0882.0882.0882.0882.0882.0882.0882.042
 311 314.0063.0032.0078.0078.0078.0078.0078.0078.0078.0088.0098.0063
 321 324.0202.0202.0353.0353.0353.0353.0353.0353.0353.0353.0202
 331 334.0049.0049.0067.0067.0067.0067.0067.0067.0076.0084.0084.0049
 341 344.0074.0074.0084.0084.0084.0084.0084.0084.0168.0176.0168.0088
 351 354.0074.0074.0168.0168.0168.0168.0168.0168.0168.0168.0168.0098
 361 3640.0420.042.0882.0882.0882.0882.0882.0882.0882.0882.0882.042
 END MON-GRND-CONC

QUAL-PROPS

*** <PLS > Identifiers and Flags
 *** x - x QUALID QTID QSD VPFW VPFS QSO VQO QIFW VIQC QAGW VAQC
 11 364PO4 LBS 1 1 0 0 0 1 3 1 3
 END QUAL-PROPS

QUAL-INPUT

*** Storage on surface and nonseasonal parameters
 *** SQO POTFW POTFS ACQOP SQOLIM WSQOP IOQC AOQC
 *** <PLS > qty/ac qty/ton qty/ton qty/ ac.day in/hr qty/ft3 qty/ft3
 *** x - x
 11 364 0. 0. 0. 0.0.000001 1.64 0. 0.
 END QUAL-INPUT

MON-POTFW

*** <PLS > Value at start of each month for washoff potency factor (lb/ton)
 *** x - x JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
 11 14.0036.0036.0036.0036.0045.0045.0135.0135.0135.0135.0045.0036
 21 24 2.88 2.88 3.42 3.42 4.14 3.12 9.36 9.36 9.36 6.84 3.42 2.88
 31 34 0.09 0.09 0.09 0.090.135 0.09 0.27 0.27 0.27 0.27 0.09 0.09
 41 44 0.36 0.36 0.36 0.360.495 0.39 1.17 1.17 1.17 1.170.585 0.36
 51 54 0.45 0.45 0.45 0.45 0.54 0.45 1.35 1.35 1.35 1.350.675 0.45
 61 64 0.72 0.72 0.72 0.72 0.630.6752.0252.0252.0252.0250.675 0.72
 71 .0036.0036.0036.0036.0045.0045.0135.0135.0135.0135.0045.0036
 72 2.88 2.88 3.42 3.42 4.14 3.12 9.36 9.36 9.36 6.84 3.42 2.88
 73 0.09 0.09 0.09 0.090.135 0.09 0.27 0.27 0.27 0.27 0.09 0.09

Black/Springbrook UCI File

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74      0.36 0.36 0.36 0.360.495 0.39 1.17 1.17 1.17 1.170.585 0.36
75      0.45 0.45 0.45 0.45 0.54 0.45 1.35 1.35 1.35 1.350.675 0.45
76      0.72 0.72 0.72 0.72 0.630.6752.0252.0252.0252.0250.675 0.72
81      .0036.0036.0036.0036.0045.0045.0135.0135.0135.0135.0045.0036
82      2.88 2.88 3.42 3.42 4.14 3.12 9.36 9.36 9.36 6.84 3.42 2.88
83      0.09 0.09 0.09 0.090.135 0.09 0.27 0.27 0.27 0.27 0.09 0.09
84      0.36 0.36 0.36 0.360.495 0.39 1.17 1.17 1.17 1.170.585 0.36
85      0.45 0.45 0.45 0.45 0.54 0.45 1.35 1.35 1.35 1.350.675 0.45
86      0.72 0.72 0.72 0.72 0.630.6752.0252.0252.0252.0250.675 0.72
211    214.0036.0036.0036.0036.0045.0045.0135.0135.0135.0135.0045.0036
221    224 2.88 2.88 3.42 3.42 4.14 3.12 9.36 9.36 9.36 6.84 3.42 2.88
231    234 0.09 0.09 0.09 0.090.135 0.09 0.27 0.27 0.27 0.27 0.09 0.09
241    244 0.36 0.36 0.36 0.360.495 0.39 1.17 1.17 1.17 1.170.585 0.36
251    254 0.45 0.45 0.45 0.45 0.54 0.45 1.35 1.35 1.35 1.350.675 0.45
261    264 0.72 0.72 0.72 0.72 0.630.6752.0252.0252.0252.0250.675 0.72
271    .0036.0036.0036.0036.0045.0045.0135.0135.0135.0135.0045.0036
272    2.88 2.88 3.42 3.42 4.14 3.12 9.36 9.36 9.36 6.84 3.42 2.88
273    0.09 0.09 0.09 0.090.135 0.09 0.27 0.27 0.27 0.27 0.09 0.09
274    0.36 0.36 0.36 0.360.495 0.39 1.17 1.17 1.17 1.170.585 0.36
275    0.45 0.45 0.45 0.45 0.54 0.45 1.35 1.35 1.35 1.350.675 0.45
276    0.72 0.72 0.72 0.72 0.630.6752.0252.0252.0252.0250.675 0.72
281    .0036.0036.0036.0036.0045.0045.0135.0135.0135.0135.0045.0036
282    2.88 2.88 3.42 3.42 4.14 3.12 9.36 9.36 9.36 6.84 3.42 2.88
283    0.09 0.09 0.09 0.090.135 0.09 0.27 0.27 0.27 0.27 0.09 0.09
284    0.36 0.36 0.36 0.360.495 0.39 1.17 1.17 1.17 1.170.585 0.36
285    0.45 0.45 0.45 0.45 0.54 0.45 1.35 1.35 1.35 1.350.675 0.45
286    0.72 0.72 0.72 0.72 0.630.6752.0252.0252.0252.0250.675 0.72
311    314.0036.0036.0036.0036.0045.0045.0135.0135.0135.0135.0045.0036
321    324 2.88 2.88 3.42 3.42 4.14 3.12 9.36 9.36 9.36 6.84 3.42 2.88
331    334 0.09 0.09 0.09 0.090.135 0.09 0.27 0.27 0.27 0.27 0.09 0.09
341    344 0.36 0.36 0.36 0.360.495 0.39 1.17 1.17 1.17 1.170.585 0.36
351    354 0.45 0.45 0.45 0.45 0.54 0.45 1.35 1.35 1.35 1.350.675 0.45
361    364 0.72 0.72 0.72 0.72 0.630.6752.0252.0252.0252.0250.675 0.72
END MON-POTFW

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MON-IFLW-CONC

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*** <PLS > Conc of QUAL in interflow outflow for each month (qty/ft3)
*** x - x JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
11     140.0010.0010.001.0012.0054.0027.0027.0027.00270.002.0007.0007
21     24.0546.0546.0546.0588.2268.1134.1134.1134.1134.10260.0630.063
31     34.0018.0018.00180.0020.0120.0060.0060.0060.0060.005.0014.0014
41     440.0040.0040.0040.004.0288.0144.0144.0144.01440.0120.0040.004
51     540.0080.0080.0080.0080.0320.0160.0160.0160.0160.0160.0040.004
61     640.0180.0180.018.0168.0378.0378.0378.0378.0405.0378.0105.0105
71     0.0010.0010.001.0012.0054.0027.0027.0027.00270.002.0007.0007
72     .0546.0546.0546.0588.2268.1134.1134.1134.1134.10260.0630.063
73     .0018.0018.00180.0020.0120.0060.0060.0060.0060.005.0014.0014
74     0.0040.0040.0040.004.0288.0144.0144.0144.01440.0120.0040.004
75     0.0080.0080.0080.0080.0320.0160.0160.0160.0160.0160.0040.004
76     0.0180.0180.018.0168.0378.0378.0378.0378.0405.0378.0105.0105
81     0.0010.0010.001.0012.0054.0027.0027.0027.00270.002.0007.0007
82     .0546.0546.0546.0588.2268.1134.1134.1134.1134.10260.0630.063
83     .0018.0018.00180.0020.0120.0060.0060.0060.0060.005.0014.0014
84     0.0040.0040.0040.004.0288.0144.0144.0144.01440.0120.0040.004
85     0.0080.0080.0080.0080.0320.0160.0160.0160.0160.0160.0040.004
86     0.0180.0180.018.0168.0378.0378.0378.0378.0405.0378.0105.0105
211    2140.0010.0010.001.0012.0054.0027.0027.0027.00270.002.0007.0007
221    224.0546.0546.0546.0588.2268.1134.1134.1134.1134.10260.0630.063
231    234.0018.0018.00180.0020.0120.0060.0060.0060.0060.005.0014.0014
241    2440.0040.0040.0040.004.0288.0144.0144.0144.01440.0120.0040.004
251    2540.0080.0080.0080.0080.0320.0160.0160.0160.0160.0160.0040.004
261    2640.0180.0180.018.0168.0378.0378.0378.0378.0405.0378.0105.0105
271    0.0010.0010.001.0012.0054.0027.0027.0027.00270.002.0007.0007
272    .0546.0546.0546.0588.2268.1134.1134.1134.1134.10260.0630.063
273    .0018.0018.00180.0020.0120.0060.0060.0060.0060.005.0014.0014
274    0.0040.0040.0040.004.0288.0144.0144.0144.01440.0120.0040.004
275    0.0080.0080.0080.0080.0320.0160.0160.0160.0160.0160.0040.004
276    0.0180.0180.018.0168.0378.0378.0378.0378.0405.0378.0105.0105
281    0.0010.0010.001.0012.0054.0027.0027.0027.00270.002.0007.0007
282    .0546.0546.0546.0588.2268.1134.1134.1134.1134.10260.0630.063
283    .0018.0018.00180.0020.0120.0060.0060.0060.0060.005.0014.0014
284    0.0040.0040.0040.004.0288.0144.0144.0144.01440.0120.0040.004
285    0.0080.0080.0080.0080.0320.0160.0160.0160.0160.0160.0040.004
286    0.0180.0180.018.0168.0378.0378.0378.0378.0405.0378.0105.0105
311    3140.0010.0010.001.0012.0054.0027.0027.0027.00270.002.0007.0007
321    324.0546.0546.0546.0588.2268.1134.1134.1134.1134.10260.0630.063

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331 334.0018.0018.00180.0020.0120.0060.0060.0060.0060.005.0014.0014
 341 3440.0040.0040.0040.004.0288.0144.0144.0144.01440.0120.0040.004
 351 3540.0080.0080.0080.0080.0320.0160.0160.0160.0160.0160.0040.004
 361 3640.0180.0180.018.0168.0378.0378.0378.0378.0405.0378.0105.0105
 END MON-IFLW-CONC

MON-GRND-CONC

*** <PLS > Value at start of month for conc of QUAL in groundwater (qty/ft3)

*** x - x JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
 11 14.0125.0125.0125.01250.015 0.07 0.07 0.07 0.07 0.07 0.07 0.07
 21 24.0336.0336.0336.0336 0.04.1075.10750.105.1025 0.1.0975.0975
 31 34.0042.0042.0042.0042.00490.0270.0270.0270.0270.0270.0270.027
 41 44.0056.0056.0056.0056.00640.0280.0280.0280.0280.028.0252.0252
 51 540.0160.0160.0160.0160.016.0378.0378.0378.0378.03780.0350.035
 61 640.0160.0160.0160.0160.016.0567.0567.0567.0567.05670.0560.056
 71 .0125.0125.0125.01250.015 0.07 0.07 0.07 0.07 0.07 0.07 0.07
 72 .0336.0336.0336.0336 0.04.1075.10750.105.1025 0.1.0975.0975
 73 .0042.0042.0042.0042.00490.0270.0270.0270.0270.0270.0270.027
 74 .0056.0056.0056.0056.00640.0280.0280.0280.0280.028.0252.0252
 75 0.0160.0160.0160.0160.016.0378.0378.0378.0378.0378.03780.0350.035
 76 0.0160.0160.0160.0160.016.0567.0567.0567.0567.05670.0560.056
 81 .0125.0125.0125.01250.015 0.07 0.07 0.07 0.07 0.07 0.07 0.07
 82 .0336.0336.0336.0336 0.04.1075.10750.105.1025 0.1.0975.0975
 83 .0042.0042.0042.0042.00490.0270.0270.0270.0270.0270.0270.027
 84 .0056.0056.0056.0056.00640.0280.0280.0280.0280.028.0252.0252
 85 0.0160.0160.0160.0160.016.0378.0378.0378.0378.0378.03780.0350.035
 86 0.0160.0160.0160.0160.016.0567.0567.0567.0567.05670.0560.056
 211 214.0125.0125.0125.01250.015 0.07 0.07 0.07 0.07 0.07 0.07 0.07
 221 224.0336.0336.0336.0336 0.04.1075.10750.105.1025 0.1.0975.0975
 231 234.0042.0042.0042.0042.00490.0270.0270.0270.0270.0270.0270.027
 241 244.0056.0056.0056.0056.00640.0280.0280.0280.0280.028.0252.0252
 251 2540.0160.0160.0160.0160.016.0378.0378.0378.0378.0378.03780.0350.035
 261 2640.0160.0160.0160.0160.016.0567.0567.0567.0567.05670.0560.056
 271 .0125.0125.0125.01250.015 0.07 0.07 0.07 0.07 0.07 0.07 0.07
 272 .0336.0336.0336.0336 0.04.1075.10750.105.1025 0.1.0975.0975
 273 .0042.0042.0042.0042.00490.0270.0270.0270.0270.0270.0270.027
 274 .0056.0056.0056.0056.00640.0280.0280.0280.0280.028.0252.0252
 275 0.0160.0160.0160.0160.016.0378.0378.0378.0378.0378.03780.0350.035
 276 0.0160.0160.0160.0160.016.0567.0567.0567.0567.05670.0560.056
 281 .0125.0125.0125.01250.015 0.07 0.07 0.07 0.07 0.07 0.07 0.07
 282 .0336.0336.0336.0336 0.04.1075.10750.105.1025 0.1.0975.0975
 283 .0042.0042.0042.0042.00490.0270.0270.0270.0270.0270.0270.027
 284 .0056.0056.0056.0056.00640.0280.0280.0280.0280.028.0252.0252
 285 0.0160.0160.0160.0160.016.0378.0378.0378.0378.0378.03780.0350.035
 286 0.0160.0160.0160.0160.016.0567.0567.0567.0567.05670.0560.056
 311 314.0125.0125.0125.01250.015 0.07 0.07 0.07 0.07 0.07 0.07 0.07
 321 324.0336.0336.0336.0336 0.04.1075.10750.105.1025 0.1.0975.0975
 331 334.0042.0042.0042.0042.00490.0270.0270.0270.0270.0270.0270.027
 341 344.0056.0056.0056.0056.00640.0280.0280.0280.0280.028.0252.0252
 351 3540.0160.0160.0160.0160.016.0378.0378.0378.0378.0378.03780.0350.035
 361 3640.0160.0160.0160.0160.016.0567.0567.0567.0567.05670.0560.056
 END MON-GRND-CONC

QUAL-PROPS

*** <PLS > Identifiers and Flags

*** x - x QUALID QTID QSD VPFW VPFS QSO VQO QIFW VIQC QAGW VAQC
 11 364BOD/Organics LBS 0 0 0 2 1 1 3 1 3
 END QUAL-PROPS

QUAL-INPUT

*** Storage on surface and nonseasonal parameters

*** SQO POTFW POTFS ACQOP SQOLIM WSQOP IOQC AOQC
 *** <PLS > qty/ac qty/ton qty/ton qty/ qty/ac in/hr qty/ft3 qty/ft3
 *** x - x ac.day
 11 14 0. 0. 0. 0.0.000001 0.7 0. 0.
 21 24 0. 0. 0. 0.0.000001 0.5 0. 0.
 31 34 0. 0. 0. 0.0.000001 0.6 0. 0.
 41 64 0. 0. 0. 0.0.000001 0.5 0. 0.
 71 0. 0. 0. 0.0.000001 0.7 0. 0.
 72 0. 0. 0. 0.0.000001 0.5 0. 0.
 73 0. 0. 0. 0.0.000001 0.6 0. 0.
 74 76 0. 0. 0. 0.0.000001 0.5 0. 0.
 81 0. 0. 0. 0.0.000001 0.7 0. 0.
 82 0. 0. 0. 0.0.000001 0.5 0. 0.
 83 0. 0. 0. 0.0.000001 0.6 0. 0.
 84 86 0. 0. 0. 0.0.000001 0.5 0. 0.

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211 214 0. 0. 0. 0.0.000001 0.7 0. 0.
221 224 0. 0. 0. 0.0.000001 0.5 0. 0.
231 234 0. 0. 0. 0.0.000001 0.6 0. 0.
241 264 0. 0. 0. 0.0.000001 0.5 0. 0.
271 0. 0. 0. 0.0.000001 0.7 0. 0.
272 0. 0. 0. 0.0.000001 0.5 0. 0.
273 0. 0. 0. 0.0.000001 0.6 0. 0.
274 276 0. 0. 0. 0.0.000001 0.5 0. 0.
281 0. 0. 0. 0.0.000001 0.7 0. 0.
282 0. 0. 0. 0.0.000001 0.5 0. 0.
283 0. 0. 0. 0.0.000001 0.6 0. 0.
284 286 0. 0. 0. 0.0.000001 0.5 0. 0.
311 314 0. 0. 0. 0.0.000001 0.7 0. 0.
321 324 0. 0. 0. 0.0.000001 0.5 0. 0.
331 334 0. 0. 0. 0.0.000001 0.6 0. 0.
341 364 0. 0. 0. 0.0.000001 0.5 0. 0.
END QUAL-INPUT

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MON-ACCUM

*** <PLS > Value at start of each month for accum rate of QUALOF (lb/ac.day)

```

*** x - x JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
11 14 0.72 0.72 0.721.0081.0081.3441.3441.344 1.92 1.441.008 0.72
21 241.0081.0081.008 1.44 1.44 1.92 1.92 1.922.1121.5841.0081.008
31 340.7560.7560.7560.9720.9721.2961.2961.2961.2960.7560.7560.756
41 440.4590.4590.4590.6210.6210.8280.8280.8280.8280.4590.4590.459
51 640.4860.4860.4860.6210.6210.8280.8280.8280.8280.4860.4860.486
71 0.72 0.72 0.721.0081.0081.3441.3441.344 1.92 1.441.008 0.72
72 1.0081.0081.008 1.44 1.44 1.92 1.92 1.922.1121.5841.0081.008
73 0.7560.7560.7560.9720.9721.2961.2961.2961.2960.7560.7560.756
74 0.4590.4590.4590.6210.6210.8280.8280.8280.8280.4590.4590.459
75 760.4860.4860.4860.6210.6210.8280.8280.8280.8280.4860.4860.486
81 0.72 0.72 0.721.0081.0081.3441.3441.344 1.92 1.441.008 0.72
82 1.0081.0081.008 1.44 1.44 1.92 1.92 1.922.1121.5841.0081.008
83 0.7560.7560.7560.9720.9721.2961.2961.2961.2960.7560.7560.756
84 0.4590.4590.4590.6210.6210.8280.8280.8280.8280.4590.4590.459
85 860.4860.4860.4860.6210.6210.8280.8280.8280.8280.4860.4860.486
211 214 0.72 0.72 0.721.0081.0081.3441.3441.344 1.92 1.441.008 0.72
221 2241.0081.0081.008 1.44 1.44 1.92 1.92 1.922.1121.5841.0081.008
231 2340.7560.7560.7560.9720.9721.2961.2961.2961.2960.7560.7560.756
241 2440.4590.4590.4590.6210.6210.8280.8280.8280.8280.4590.4590.459
251 2640.4860.4860.4860.6210.6210.8280.8280.8280.8280.4860.4860.486
271 0.72 0.72 0.721.0081.0081.3441.3441.344 1.92 1.441.008 0.72
272 1.0081.0081.008 1.44 1.44 1.92 1.92 1.922.1121.5841.0081.008
273 0.7560.7560.7560.9720.9721.2961.2961.2961.2960.7560.7560.756
274 0.4590.4590.4590.6210.6210.8280.8280.8280.8280.4590.4590.459
275 2760.4860.4860.4860.6210.6210.8280.8280.8280.8280.4860.4860.486
281 0.72 0.72 0.721.0081.0081.3441.3441.344 1.92 1.441.008 0.72
282 1.0081.0081.008 1.44 1.44 1.92 1.92 1.922.1121.5841.0081.008
283 0.7560.7560.7560.9720.9721.2961.2961.2961.2960.7560.7560.756
284 0.4590.4590.4590.6210.6210.8280.8280.8280.8280.4590.4590.459
285 2860.4860.4860.4860.6210.6210.8280.8280.8280.8280.4860.4860.486
311 314 0.72 0.72 0.721.0081.0081.3441.3441.344 1.92 1.441.008 0.72
321 3241.0081.0081.008 1.44 1.44 1.92 1.92 1.922.1121.5841.0081.008
331 3340.7560.7560.7560.9720.9721.2961.2961.2961.2960.7560.7560.756
341 3440.4590.4590.4590.6210.6210.8280.8280.8280.8280.4590.4590.459
351 3640.4860.4860.4860.6210.6210.8280.8280.8280.8280.4860.4860.486
END MON-ACCUM

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MON-SQOLIM

*** <PLS > Value at start of month for limiting storage of QUALOF (lb/ac)

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*** x - x JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
11 14 4.86 4.86 4.86 6.48 6.48 8.64 8.64 8.6412.96 9.72 4.86 4.86
21 24 5.4 5.4 5.4 9.72 9.7212.9612.9612.96 14.4 10.8 5.4 5.4
31 34 5.4 5.4 5.4 7.02 7.02 9.36 9.36 9.3612.24 9.18 5.4 5.4
41 443.0373.0373.0373.8483.848 5.13 5.13 5.13 5.944.4553.0373.037
51 64 4.05 4.05 4.055.0625.062 6.75 6.75 6.75 8.16.075 4.05 4.05
71 4.86 4.86 4.86 6.48 6.48 8.64 8.64 8.6412.96 9.72 4.86 4.86
72 5.4 5.4 5.4 9.72 9.7212.9612.9612.96 14.4 10.8 5.4 5.4
73 5.4 5.4 5.4 7.02 7.02 9.36 9.36 9.3612.24 9.18 5.4 5.4
74 3.0373.0373.0373.8483.848 5.13 5.13 5.13 5.944.4553.0373.037
75 76 4.05 4.05 4.055.0625.062 6.75 6.75 6.75 8.16.075 4.05 4.05
81 4.86 4.86 4.86 6.48 6.48 8.64 8.64 8.6412.96 9.72 4.86 4.86
82 5.4 5.4 5.4 9.72 9.7212.9612.9612.96 14.4 10.8 5.4 5.4
83 5.4 5.4 5.4 7.02 7.02 9.36 9.36 9.3612.24 9.18 5.4 5.4
84 3.0373.0373.0373.8483.848 5.13 5.13 5.13 5.944.4553.0373.037
85 86 4.05 4.05 4.055.0625.062 6.75 6.75 6.75 8.16.075 4.05 4.05

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211 214 4.86 4.86 4.86 6.48 6.48 8.64 8.64 8.6412.96 9.72 4.86 4.86
221 224 5.4 5.4 5.4 9.72 9.7212.9612.9612.96 14.4 10.8 5.4 5.4
231 234 5.4 5.4 5.4 7.02 7.02 9.36 9.36 9.3612.24 9.18 5.4 5.4
241 2443.0373.0373.0373.8483.848 5.13 5.13 5.13 5.944.4553.0373.037
251 264 4.05 4.05 4.055.0625.062 6.75 6.75 6.75 8.16.075 4.05 4.05
271 4.86 4.86 4.86 6.48 6.48 8.64 8.64 8.6412.96 9.72 4.86 4.86
272 5.4 5.4 5.4 9.72 9.7212.9612.9612.96 14.4 10.8 5.4 5.4
273 5.4 5.4 5.4 7.02 7.02 9.36 9.36 9.3612.24 9.18 5.4 5.4
274 3.0373.0373.0373.8483.848 5.13 5.13 5.13 5.944.4553.0373.037
275 276 4.05 4.05 4.055.0625.062 6.75 6.75 6.75 8.16.075 4.05 4.05
281 4.86 4.86 4.86 6.48 6.48 8.64 8.64 8.6412.96 9.72 4.86 4.86
282 5.4 5.4 5.4 9.72 9.7212.9612.9612.96 14.4 10.8 5.4 5.4
283 5.4 5.4 5.4 7.02 7.02 9.36 9.36 9.3612.24 9.18 5.4 5.4
284 3.0373.0373.0373.8483.848 5.13 5.13 5.13 5.944.4553.0373.037
285 286 4.05 4.05 4.055.0625.062 6.75 6.75 6.75 8.16.075 4.05 4.05
311 314 4.86 4.86 4.86 6.48 6.48 8.64 8.64 8.6412.96 9.72 4.86 4.86
321 324 5.4 5.4 5.4 9.72 9.7212.9612.9612.96 14.4 10.8 5.4 5.4
331 334 5.4 5.4 5.4 7.02 7.02 9.36 9.36 9.3612.24 9.18 5.4 5.4
341 3443.0373.0373.0373.8483.848 5.13 5.13 5.13 5.944.4553.0373.037
351 364 4.05 4.05 4.055.0625.062 6.75 6.75 6.75 8.16.075 4.05 4.05
END MON-SQOLIM

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MON-IFLW-CONC

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*** <PLS > Conc of QUAL in interflow outflow for each month (qty/ft3)
*** x - x JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
11 14 1.98 1.98 1.98 3 3 3 3 3 3 3 1.98 1.98
21 24 15.4 15.4 15.4 19.6 19.6 19.6 19.6 19.6 19.6 19.6 15.4 15.4
31 34 2.2 2.2 2.2 3.3 3.3 3.3 3.3 3.3 3.3 3.3 2.2 2.2
41 44 3.08 3.08 3.08 4.4 4.4 4.4 4.4 4.4 4.4 4.4 3.08 3.08
51 54 5.5 5.5 5.5 7.7 7.7 7.7 7.7 7.7 7.7 7.7 5.5 5.5
61 64 18 18 18 26.4 26.4 26.4 26.4 26.4 26.4 26.4 18 18
71 1.98 1.98 1.98 3 3 3 3 3 3 3 1.98 1.98
72 15.4 15.4 15.4 19.6 19.6 19.6 19.6 19.6 19.6 19.6 15.4 15.4
73 2.2 2.2 2.2 3.3 3.3 3.3 3.3 3.3 3.3 3.3 2.2 2.2
74 3.08 3.08 3.08 4.4 4.4 4.4 4.4 4.4 4.4 4.4 3.08 3.08
75 5.5 5.5 5.5 7.7 7.7 7.7 7.7 7.7 7.7 7.7 5.5 5.5
76 18 18 18 26.4 26.4 26.4 26.4 26.4 26.4 26.4 18 18
81 1.98 1.98 1.98 3 3 3 3 3 3 3 1.98 1.98
82 15.4 15.4 15.4 19.6 19.6 19.6 19.6 19.6 19.6 19.6 15.4 15.4
83 2.2 2.2 2.2 3.3 3.3 3.3 3.3 3.3 3.3 3.3 2.2 2.2
84 3.08 3.08 3.08 4.4 4.4 4.4 4.4 4.4 4.4 4.4 3.08 3.08
85 5.5 5.5 5.5 7.7 7.7 7.7 7.7 7.7 7.7 7.7 5.5 5.5
86 18 18 18 26.4 26.4 26.4 26.4 26.4 26.4 26.4 18 18
211 214 1.98 1.98 1.98 3 3 3 3 3 3 3 1.98 1.98
221 224 15.4 15.4 15.4 19.6 19.6 19.6 19.6 19.6 19.6 19.6 15.4 15.4
231 234 2.2 2.2 2.2 3.3 3.3 3.3 3.3 3.3 3.3 3.3 2.2 2.2
241 244 3.08 3.08 3.08 4.4 4.4 4.4 4.4 4.4 4.4 4.4 3.08 3.08
251 254 5.5 5.5 5.5 7.7 7.7 7.7 7.7 7.7 7.7 7.7 5.5 5.5
261 264 18 18 18 26.4 26.4 26.4 26.4 26.4 26.4 26.4 18 18
271 1.98 1.98 1.98 3 3 3 3 3 3 3 1.98 1.98
272 15.4 15.4 15.4 19.6 19.6 19.6 19.6 19.6 19.6 19.6 15.4 15.4
273 2.2 2.2 2.2 3.3 3.3 3.3 3.3 3.3 3.3 3.3 2.2 2.2
274 3.08 3.08 3.08 4.4 4.4 4.4 4.4 4.4 4.4 4.4 3.08 3.08
275 5.5 5.5 5.5 7.7 7.7 7.7 7.7 7.7 7.7 7.7 5.5 5.5
276 18 18 18 26.4 26.4 26.4 26.4 26.4 26.4 26.4 18 18
281 1.98 1.98 1.98 3 3 3 3 3 3 3 1.98 1.98
282 15.4 15.4 15.4 19.6 19.6 19.6 19.6 19.6 19.6 19.6 15.4 15.4
283 2.2 2.2 2.2 3.3 3.3 3.3 3.3 3.3 3.3 3.3 2.2 2.2
284 3.08 3.08 3.08 4.4 4.4 4.4 4.4 4.4 4.4 4.4 3.08 3.08
285 5.5 5.5 5.5 7.7 7.7 7.7 7.7 7.7 7.7 7.7 5.5 5.5
286 18 18 18 26.4 26.4 26.4 26.4 26.4 26.4 26.4 18 18
321 324 3.3 3.3 3.3 5 5 5 5 5 5 5 3.3 3.3
331 334 2.2 2.2 2.2 3.3 3.3 3.3 3.3 3.3 3.3 3.3 2.2 2.2
341 344 3.08 3.08 3.08 4.4 4.4 4.4 4.4 4.4 4.4 4.4 3.08 3.08
351 354 5.5 5.5 5.5 7.7 7.7 7.7 7.7 7.7 7.7 7.7 5.5 5.5
361 364 18 18 18 26.4 26.4 26.4 26.4 26.4 26.4 26.4 18 18
END MON-IFLW-CONC

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MON-GRND-CONC

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*** <PLS > Value at start of month for conc of QUAL in groundwater (qty/ft3)
*** x - x JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
11 14 3 3 2.4 2.4 2.4 2.4 2.4 2.4 2.4 3 3
21 24 19.6 19.615.6815.6815.6815.6815.6815.6815.6815.68 19.6 19.6
31 34 3.3 3.3 2.64 2.64 2.64 2.64 2.64 2.64 2.64 3.3 3.3
41 44 4.4 4.4 3.52 3.52 3.52 3.52 3.52 3.52 3.52 4.4 4.4
51 54 7.7 7.7 6.16 6.16 6.16 6.16 6.16 6.16 6.16 7.7 7.7

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61 64 26.4 26.421.1221.1221.1221.1221.1221.1221.1221.1221.12 26.4 26.4
71 3 3 2.4 2.4 2.4 2.4 2.4 2.4 2.4 2.4 3 3
72 19.6 19.615.6815.6815.6815.6815.6815.6815.6815.68 19.6 19.6
73 3.3 3.3 2.64 2.64 2.64 2.64 2.64 2.64 2.64 2.64 3.3 3.3
74 4.4 4.4 3.52 3.52 3.52 3.52 3.52 3.52 3.52 3.52 4.4 4.4
75 7.7 7.7 6.16 6.16 6.16 6.16 6.16 6.16 6.16 6.16 7.7 7.7
76 26.4 26.421.1221.1221.1221.1221.1221.1221.1221.12 26.4 26.4
81 3 3 2.4 2.4 2.4 2.4 2.4 2.4 2.4 2.4 3 3
82 19.6 19.615.6815.6815.6815.6815.6815.6815.6815.68 19.6 19.6
83 3.3 3.3 2.64 2.64 2.64 2.64 2.64 2.64 2.64 2.64 3.3 3.3
84 4.4 4.4 3.52 3.52 3.52 3.52 3.52 3.52 3.52 3.52 4.4 4.4
85 7.7 7.7 6.16 6.16 6.16 6.16 6.16 6.16 6.16 6.16 7.7 7.7
86 26.4 26.421.1221.1221.1221.1221.1221.1221.1221.12 26.4 26.4
211 214 3 3 2.4 2.4 2.4 2.4 2.4 2.4 2.4 2.4 3 3
221 224 19.6 19.615.6815.6815.6815.6815.6815.6815.6815.68 19.6 19.6
231 234 3.3 3.3 2.64 2.64 2.64 2.64 2.64 2.64 2.64 2.64 3.3 3.3
241 244 4.4 4.4 3.52 3.52 3.52 3.52 3.52 3.52 3.52 3.52 4.4 4.4
251 254 7.7 7.7 6.16 6.16 6.16 6.16 6.16 6.16 6.16 6.16 7.7 7.7
261 264 26.4 26.421.1221.1221.1221.1221.1221.1221.1221.12 26.4 26.4
271 3 3 2.4 2.4 2.4 2.4 2.4 2.4 2.4 2.4 3 3
272 19.6 19.615.6815.6815.6815.6815.6815.6815.6815.68 19.6 19.6
273 3.3 3.3 2.64 2.64 2.64 2.64 2.64 2.64 2.64 2.64 3.3 3.3
274 4.4 4.4 3.52 3.52 3.52 3.52 3.52 3.52 3.52 3.52 4.4 4.4
275 7.7 7.7 6.16 6.16 6.16 6.16 6.16 6.16 6.16 6.16 7.7 7.7
276 26.4 26.421.1221.1221.1221.1221.1221.1221.1221.12 26.4 26.4
281 3 3 2.4 2.4 2.4 2.4 2.4 2.4 2.4 2.4 3 3
282 19.6 19.615.6815.6815.6815.6815.6815.6815.6815.68 19.6 19.6
283 3.3 3.3 2.64 2.64 2.64 2.64 2.64 2.64 2.64 2.64 3.3 3.3
284 4.4 4.4 3.52 3.52 3.52 3.52 3.52 3.52 3.52 3.52 4.4 4.4
285 7.7 7.7 6.16 6.16 6.16 6.16 6.16 6.16 6.16 6.16 7.7 7.7
286 26.4 26.421.1221.1221.1221.1221.1221.1221.1221.12 26.4 26.4
321 324 5 5 4 4 4 4 4 4 4 4 5 5
331 334 3.3 3.3 2.64 2.64 2.64 2.64 2.64 2.64 2.64 2.64 3.3 3.3
341 344 4.4 4.4 3.52 3.52 3.52 3.52 3.52 3.52 3.52 3.52 4.4 4.4
351 354 7.7 7.7 6.16 6.16 6.16 6.16 6.16 6.16 6.16 6.16 7.7 7.7
361 364 26.4 26.421.1221.1221.1221.1221.1221.1221.1221.12 26.4 26.4
END MON-GRND-CONC

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QUAL-PROPS

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*** <PLS > Identifiers and Flags
*** x - x QUALID QTID QSD VPFW VPFS QSO VQO QIFW VIQC QAGW VAQC
11 364Alkalinity LBS 0 0 0 2 1 1 3 1 3
END QUAL-PROPS

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QUAL-INPUT

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*** Storage on surface and nonseasonal parameters
*** SQO POTFW POTFS ACQOP SQOLIM WSQOP IOQC AOQC
*** <PLS > qty/ac qty/ton qty/ton qty/ ac.day in/hr qty/ft3 qty/ft3
*** x - x
11 14 2. 0. 0. 0.0.000001 0.7 0. 0.
21 24 2. 0. 0. 0.0.000001 0.5 0. 0.
31 34 2. 0. 0. 0.0.000001 0.6 0. 0.
41 64 2. 0. 0. 0.0.000001 0.5 0. 0.
71 2. 0. 0. 0.0.000001 0.7 0. 0.
72 2. 0. 0. 0.0.000001 0.5 0. 0.
73 2. 0. 0. 0.0.000001 0.6 0. 0.
74 76 2. 0. 0. 0.0.000001 0.5 0. 0.
81 2. 0. 0. 0.0.000001 0.7 0. 0.
82 2. 0. 0. 0.0.000001 0.5 0. 0.
83 2. 0. 0. 0.0.000001 0.6 0. 0.
84 86 2. 0. 0. 0.0.000001 0.5 0. 0.
211 214 2. 0. 0. 0.0.000001 0.7 0. 0.
221 224 2. 0. 0. 0.0.000001 0.5 0. 0.
231 234 2. 0. 0. 0.0.000001 0.6 0. 0.
241 264 2. 0. 0. 0.0.000001 0.5 0. 0.
271 2. 0. 0. 0.0.000001 0.7 0. 0.
272 2. 0. 0. 0.0.000001 0.5 0. 0.
273 2. 0. 0. 0.0.000001 0.6 0. 0.
274 276 2. 0. 0. 0.0.000001 0.5 0. 0.
281 2. 0. 0. 0.0.000001 0.7 0. 0.
282 2. 0. 0. 0.0.000001 0.5 0. 0.
283 2. 0. 0. 0.0.000001 0.6 0. 0.
284 286 2. 0. 0. 0.0.000001 0.5 0. 0.
311 314 2. 0. 0. 0.0.000001 0.7 0. 0.
321 324 2. 0. 0. 0.0.000001 0.5 0. 0.
331 334 2. 0. 0. 0.0.000001 0.6 0. 0.

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341 364 2. 0. 0. 0.0.000001 0.5 0. 0.
END QUAL-INPUT

MON-ACCUM

*** <PLS > Value at start of each month for accum rate of QUALOF (lb/ac.day)
*** x - x JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
11 141.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-5
21 244.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-5
31 341.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-5
41 443.e-53.e-53.e-53.e-53.e-53.e-53.e-53.e-53.e-53.e-53.e-53.e-5
51 644.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-5
71 1.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-5
72 4.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-5
73 1.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-5
74 3.e-53.e-53.e-53.e-53.e-53.e-53.e-53.e-53.e-53.e-53.e-53.e-5
75 764.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-5
81 1.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-5
82 4.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-5
83 1.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-5
84 3.e-53.e-53.e-53.e-53.e-53.e-53.e-53.e-53.e-53.e-53.e-53.e-5
85 864.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-5
211 2141.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-5
221 2244.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-5
231 2341.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-5
241 2443.e-53.e-53.e-53.e-53.e-53.e-53.e-53.e-53.e-53.e-53.e-53.e-5
251 2644.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-5
271 1.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-5
272 4.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-5
273 1.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-5
274 3.e-53.e-53.e-53.e-53.e-53.e-53.e-53.e-53.e-53.e-53.e-53.e-5
275 2764.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-5
281 1.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-5
282 4.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-5
283 1.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-5
284 3.e-53.e-53.e-53.e-53.e-53.e-53.e-53.e-53.e-53.e-53.e-53.e-5
285 2864.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-5
311 3141.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-5
321 3244.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-5
331 3341.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-5
341 3443.e-53.e-53.e-53.e-53.e-53.e-53.e-53.e-53.e-53.e-53.e-53.e-5
351 3644.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-54.e-5
END MON-ACCUM

MON-SQOLIM

*** <PLS > Value at start of month for limiting storage of QUALOF (lb/ac)
*** x - x JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
11 146.e-56.e-56.e-58.e-58.e-58.e-58.e-58.e-58.e-51.e-41.e-46.e-56.e-5
21 24.0002.0002.0002.0002.0002.0002.0002.0002.0002.0002.0002.0002
31 341.e-41.e-41.e-41.e-41.e-48.e-58.e-58.e-58.e-58.e-51.e-41.e-41.e-4
41 441.e-41.e-41.e-41.e-41.e-41.e-41.e-41.e-41.e-41.e-41.e-41.e-4
51 64.0002.0002.0002.0002.0002.0002.0002.0002.0002.0002.0002.0002
71 1.e-41.e-41.e-41.e-48.e-58.e-58.e-58.e-51.e-41.e-41.e-41.e-4
72 .0002.0002.0002.0002.0002.0002.0002.0002.0002.0002.0002.0002
73 1.e-41.e-41.e-41.e-48.e-58.e-58.e-58.e-51.e-41.e-41.e-41.e-4
74 1.e-41.e-41.e-41.e-41.e-41.e-41.e-41.e-41.e-41.e-41.e-41.e-4
75 76.0002.0002.0002.0002.0002.0002.0002.0002.0002.0002.0002.0002
81 1.e-41.e-41.e-41.e-48.e-58.e-58.e-58.e-51.e-41.e-41.e-41.e-4
82 .0002.0002.0002.0002.0002.0002.0002.0002.0002.0002.0002.0002
83 1.e-41.e-41.e-41.e-48.e-58.e-58.e-58.e-51.e-41.e-41.e-41.e-4
84 1.e-41.e-41.e-41.e-41.e-41.e-41.e-41.e-41.e-41.e-41.e-41.e-4
85 86.0002.0002.0002.0002.0002.0002.0002.0002.0002.0002.0002.0002
211 2146.e-56.e-56.e-58.e-58.e-58.e-58.e-58.e-58.e-51.e-41.e-46.e-56.e-5
221 224.0002.0002.0002.0002.0002.0002.0002.0002.0002.0002.0002.0002
231 2341.e-41.e-41.e-41.e-48.e-58.e-58.e-58.e-51.e-41.e-41.e-41.e-4
241 2441.e-41.e-41.e-41.e-41.e-41.e-41.e-41.e-41.e-41.e-41.e-41.e-4
251 264.0002.0002.0002.0002.0002.0002.0002.0002.0002.0002.0002.0002
271 1.e-41.e-41.e-41.e-48.e-58.e-58.e-58.e-51.e-41.e-41.e-41.e-4
272 .0002.0002.0002.0002.0002.0002.0002.0002.0002.0002.0002.0002
273 1.e-41.e-41.e-41.e-48.e-58.e-58.e-58.e-51.e-41.e-41.e-41.e-4
274 1.e-41.e-41.e-41.e-41.e-41.e-41.e-41.e-41.e-41.e-41.e-41.e-4
275 276.0002.0002.0002.0002.0002.0002.0002.0002.0002.0002.0002.0002
281 1.e-41.e-41.e-41.e-48.e-58.e-58.e-58.e-51.e-41.e-41.e-41.e-4
282 .0002.0002.0002.0002.0002.0002.0002.0002.0002.0002.0002.0002
283 1.e-41.e-41.e-41.e-48.e-58.e-58.e-58.e-51.e-41.e-41.e-41.e-4
284 1.e-41.e-41.e-41.e-41.e-41.e-41.e-41.e-41.e-41.e-41.e-41.e-4
285 286.0002.0002.0002.0002.0002.0002.0002.0002.0002.0002.0002.0002


```

311 3146.e-56.e-56.e-58.e-58.e-58.e-58.e-51.e-41.e-46.e-56.e-5
321 324.0002.0002.0002.0002.0002.0002.0002.0002.0002.0002.0002
331 3341.e-41.e-41.e-41.e-48.e-58.e-58.e-58.e-51.e-41.e-41.e-41.e-4
341 3441.e-41.e-41.e-41.e-41.e-41.e-41.e-41.e-41.e-41.e-41.e-41.e-4
351 364.0002.0002.0002.0002.0002.0002.0002.0002.0002.0002.0002
END MON-SQOLIM

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MON-IFLW-CONC

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*** <PLS > Conc of QUAL in interflow outflow for each month (qty/ft3)
*** x - x JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
11 14.0003.0005.00050.001.0012.0012.00120.0010.001.0006.0004.0003
21 24.0032.0032.0032.0036.0038.0038.0038.0038.0038.0036.0034.0032
31 34.0006.0006.0006.0016.0022.0022.0022.0022.0022.0012.0008.0006
41 44.0025.0025.0025.0038.0045.0045.0045.0045.0045.00350.003.0025
51 540.005.0052.0052.0075.0075.0075.0075.0075.0075.0065.00570.005
61 64.0045.0045.0045.0057.0065.0065.0065.0065.0065.00550.005.0045
71 .0003.0005.00050.001.0012.0012.00120.0010.001.0006.0004.0003
72 .0032.0032.0032.0036.0038.0038.0038.0038.0038.0036.0034.0032
73 .0006.0006.0006.0016.0022.0022.0022.0022.0022.0012.0008.0006
74 .0025.0025.0025.0038.0045.0045.0045.0045.0045.00350.003.0025
75 0.005.0052.0052.0075.0075.0075.0075.0075.0075.0065.00570.005
76 .0045.0045.0045.0057.0065.0065.0065.0065.0065.00550.005.0045
81 .0003.0005.00050.001.0012.0012.00120.0010.001.0006.0004.0003
82 .0032.0032.0032.0036.0038.0038.0038.0038.0038.0036.0034.0032
83 .0006.0006.0006.0016.0022.0022.0022.0022.0022.0012.0008.0006
84 .0025.0025.0025.0038.0045.0045.0045.0045.0045.00350.003.0025
85 0.005.0052.0052.0075.0075.0075.0075.0075.0075.0065.00570.005
86 .0045.0045.0045.0057.0065.0065.0065.0065.0065.00550.005.0045
211 214.0003.0005.00050.001.0012.0012.00120.0010.001.0006.0004.0003
221 224.0032.0032.0032.0036.0038.0038.0038.0038.0038.0036.0034.0032
231 234.0006.0006.0006.0016.0022.0022.0022.0022.0022.0012.0008.0006
241 244.0025.0025.0025.0038.0045.0045.0045.0045.0045.00350.003.0025
251 2540.005.0052.0052.0075.0075.0075.0075.0075.0075.0065.00570.005
261 264.0045.0045.0045.0057.0065.0065.0065.0065.0065.00550.005.0045
271 .0003.0005.00050.001.0012.0012.00120.0010.001.0006.0004.0003
272 .0032.0032.0032.0036.0038.0038.0038.0038.0038.0036.0034.0032
273 .0006.0006.0006.0016.0022.0022.0022.0022.0022.0012.0008.0006
274 .0025.0025.0025.0038.0045.0045.0045.0045.0045.00350.003.0025
275 0.005.0052.0052.0075.0075.0075.0075.0075.0075.0065.00570.005
276 .0045.0045.0045.0057.0065.0065.0065.0065.0065.00550.005.0045
281 .0003.0005.00050.001.0012.0012.00120.0010.001.0006.0004.0003
282 .0032.0032.0032.0036.0038.0038.0038.0038.0038.0036.0034.0032
283 .0006.0006.0006.0016.0022.0022.0022.0022.0022.0012.0008.0006
284 .0025.0025.0025.0038.0045.0045.0045.0045.0045.00350.003.0025
285 0.005.0052.0052.0075.0075.0075.0075.0075.0075.0065.00570.005
286 .0045.0045.0045.0057.0065.0065.0065.0065.0065.00550.005.0045
311 314.0003.0005.00050.001.0012.0012.00120.0010.001.0006.0004.0003
321 324.0032.0032.0032.0036.0038.0038.0038.0038.0038.0036.0034.0032
331 334.0006.0006.0006.0016.0022.0022.0022.0022.0022.0012.0008.0006
341 344.0025.0025.0025.0038.0045.0045.0045.0045.0045.00350.003.0025
351 3540.005.0052.0052.0075.0075.0075.0075.0075.0075.0065.00570.005
361 364.0045.0045.0045.0057.0065.0065.0065.0065.0065.00550.005.0045
END MON-IFLW-CONC

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MON-GRND-CONC

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*** <PLS > Value at start of month for conc of QUAL in groundwater (qty/ft3)
*** x - x JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
11 148.925 10.512.0720.25 25.2 27 27 28.8 29.7 29.7 26.113.12
21 2495.5595.5598.28118.3133.2136.8140.4142.2142.2142.2140.4106.5
31 3418.3818.3819.4231.59 36.9 38.7 42.3 45 45 45 44.125.73
41 4476.1276.1278.75 90.4103.7110.2116.6123.1124.7123.1119.997.12
51 54 105107.6115.5137.1157.1158.8153.9160.4160.4158.8153.9123.4
61 64 378 378386.4301.3338.4345.6352.8352.8352.8352.8349.2407.4
71 8.925 10.512.0720.25 25.2 27 27 28.8 29.7 29.7 26.113.12
72 95.5595.5598.28118.3133.2136.8140.4142.2142.2142.2140.4106.5
73 18.3818.3819.4231.59 36.9 38.7 42.3 45 45 45 44.125.73
74 76.1276.1278.75 90.4103.7110.2116.6123.1124.7123.1119.997.12
75 105107.6115.5137.1157.1158.8153.9160.4160.4158.8153.9123.4
76 378 378386.4301.3338.4345.6352.8352.8352.8352.8349.2407.4
81 8.925 10.512.0720.25 25.2 27 27 28.8 29.7 29.7 26.113.12
82 95.5595.5598.28118.3133.2136.8140.4142.2142.2142.2140.4106.5
83 18.3818.3819.4231.59 36.9 38.7 42.3 45 45 45 44.125.73
84 76.1276.1278.75 90.4103.7110.2116.6123.1124.7123.1119.997.12
85 105107.6115.5137.1157.1158.8153.9160.4160.4158.8153.9123.4
86 378 378386.4301.3338.4345.6352.8352.8352.8352.8349.2407.4
211 2148.925 10.512.0720.25 25.2 27 27 28.8 29.7 29.7 26.113.12

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221 22495.5595.5598.28118.3133.2136.8140.4142.2142.2142.2140.4106.5
231 23418.3818.3819.4231.59 36.9 38.7 42.3 45 45 45 44.125.73
241 24476.1276.1278.75 90.4103.7110.2116.6123.1124.7123.1119.997.12
251 254 105107.6115.5137.1157.1158.8153.9160.4160.4158.8153.9123.4
261 264 378 378386.4301.3338.4345.6352.8352.8352.8352.8349.2407.4
271 8.925 10.512.0720.25 25.2 27 27 28.8 29.7 29.7 26.113.12
272 95.5595.5598.28118.3133.2136.8140.4142.2142.2142.2140.4106.5
273 18.3818.3819.4231.59 36.9 38.7 42.3 45 45 45 44.125.73
274 76.1276.1278.75 90.4103.7110.2116.6123.1124.7123.1119.997.12
275 105107.6115.5137.1157.1158.8153.9160.4160.4158.8153.9123.4
276 378 378386.4301.3338.4345.6352.8352.8352.8352.8349.2407.4
281 8.925 10.512.0720.25 25.2 27 27 28.8 29.7 29.7 26.113.12
282 95.5595.5598.28118.3133.2136.8140.4142.2142.2142.2140.4106.5
283 18.3818.3819.4231.59 36.9 38.7 42.3 45 45 45 44.125.73
284 76.1276.1278.75 90.4103.7110.2116.6123.1124.7123.1119.997.12
285 105107.6115.5137.1157.1158.8153.9160.4160.4158.8153.9123.4
286 378 378386.4301.3338.4345.6352.8352.8352.8352.8349.2407.4
311 3148.925 10.512.0720.25 25.2 27 27 28.8 29.7 29.7 26.113.12
321 32495.5595.5598.28118.3133.2136.8140.4142.2142.2142.2140.4106.5
331 33418.3818.3819.4231.59 36.9 38.7 42.3 45 45 45 44.125.73
341 34476.1276.1278.75 90.4103.7110.2116.6123.1124.7123.1119.997.12
351 354 105107.6115.5137.1157.1158.8153.9160.4160.4158.8153.9123.4
361 364 378 378386.4301.3338.4345.6352.8352.8352.8352.8349.2407.4
END MON-GRND-CONC

```

QUAL-PROPS

```

*** <PLS > Identifiers and Flags
*** x - x QUALID QTID QSD VPFW VPFS QSO VQO QIFW VIQC QAGW VAQC
11 364Silica LBS 0 0 0 2 1 1 3 1 3
END QUAL-PROPS

```

QUAL-INPUT

```

*** Storage on surface and nonseasonal parameters
*** SQO POTFW POTFS ACQOP SQOLIM WSQOP IOQC AOQC
*** <PLS > qty/ac qty/ton qty/ton qty/ ac.day qty/ac in/hr qty/ft3 qty/ft3
*** x - x
11 14 0. 0. 0. 0.0.000001 0.7 0. 0.
21 24 0. 0. 0. 0.0.000001 0.5 0. 0.
31 34 0. 0. 0. 0.0.000001 0.6 0. 0.
41 64 0. 0. 0. 0.0.000001 0.5 0. 0.
71 0. 0. 0. 0.0.000001 0.7 0. 0.
72 0. 0. 0. 0.0.000001 0.5 0. 0.
73 0. 0. 0. 0.0.000001 0.6 0. 0.
74 76 0. 0. 0. 0.0.000001 0.5 0. 0.
81 0. 0. 0. 0.0.000001 0.7 0. 0.
82 0. 0. 0. 0.0.000001 0.5 0. 0.
83 0. 0. 0. 0.0.000001 0.6 0. 0.
84 86 0. 0. 0. 0.0.000001 0.5 0. 0.
211 214 0. 0. 0. 0.0.000001 0.7 0. 0.
221 224 0. 0. 0. 0.0.000001 0.5 0. 0.
231 234 0. 0. 0. 0.0.000001 0.6 0. 0.
241 264 0. 0. 0. 0.0.000001 0.5 0. 0.
271 0. 0. 0. 0.0.000001 0.7 0. 0.
272 0. 0. 0. 0.0.000001 0.5 0. 0.
273 0. 0. 0. 0.0.000001 0.6 0. 0.
274 276 0. 0. 0. 0.0.000001 0.5 0. 0.
281 0. 0. 0. 0.0.000001 0.7 0. 0.
282 0. 0. 0. 0.0.000001 0.5 0. 0.
283 0. 0. 0. 0.0.000001 0.6 0. 0.
284 286 0. 0. 0. 0.0.000001 0.5 0. 0.
311 314 0. 0. 0. 0.0.000001 0.7 0. 0.
321 324 0. 0. 0. 0.0.000001 0.5 0. 0.
331 334 0. 0. 0. 0.0.000001 0.6 0. 0.
341 364 0. 0. 0. 0.0.000001 0.5 0. 0.
END QUAL-INPUT

```

MON-ACCUM

```

*** <PLS > Value at start of each month for accum rate of QUALOF (lb/ac.day)
*** x - x JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
11 364 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01
END MON-ACCUM

```

MON-SQOLIM

```

*** <PLS > Value at start of month for limiting storage of QUALOF (lb/ac)
*** x - x JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
11 364 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.05 0.05

```

END MON-SQOLIM

MON-IFLW-CONC

*** <PLS > Conc of QUAL in interflow outflow for each month (qty/ft3)
 *** x - x JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
 11 364 7. 7. 8. 8. 9. 10. 10. 10. 10. 9. 8.
 END MON-IFLW-CONC

MON-GRND-CONC

*** <PLS > Value at start of month for conc of QUAL in groundwater (qty/ft3)
 *** x - x JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
 11 364 11. 11. 15. 18. 21. 24. 27. 27. 27. 23. 19. 15.
 END MON-GRND-CONC

QUAL-PROPS

*** <PLS > Identifiers and Flags
 *** x - x QUALID QTID QSD VPFW VPFS QSO VQO QIFW VIQC QAGW VAQC
 11 364E-Coli 10^9 0 0 0 2 1 1 1 1 1
 END QUAL-PROPS

QUAL-INPUT

*** Storage on surface and nonseasonal parameters
 *** SQO POTFW POTFS ACQOP SQOLIM WSQOP IOQC AOQC
 *** <PLS > qty/ac qty/ton qty/ton qty/ ac.day
 *** x - x
 11 364 0. 0. 0. 0.0.000001 2. 0. 0.
 END QUAL-INPUT

MON-ACCUM

*** <PLS > Value at start of each month for accum rate of QUALOF (lb/ac.day)
 *** x - x JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
 11 140.0240.0240.0240.0260.026 3.9 3.9 3.9 3.9 3.9 3.90.026
 21 240.5550.5550.555.6012 4.81 48.1 48.1 48.1 48.1 48.1 48.1 4.81
 31 34 0.96 0.96 0.96 1.04 7.8 7.8 7.8 7.8 7.8 7.8 1.04
 41 44 1.44 1.44 1.44 1.56 19.5 19.5 19.5 19.5 19.5 19.5 1.56
 51 54 3.6 3.6 3.6 3.9 19.5 19.5 19.5 19.5 19.5 19.5 3.9
 61 64 2.64 2.64 2.64 2.86 14.3 14.3 14.3 14.3 14.3 14.3 2.86
 71 0.0240.0240.0240.0260.026 3.9 3.9 3.9 3.9 3.9 3.90.026
 72 0.5550.5550.555.6012 4.81 48.1 48.1 48.1 48.1 48.1 48.1 4.81
 73 0.96 0.96 0.96 1.04 7.8 7.8 7.8 7.8 7.8 7.8 1.04
 74 1.44 1.44 1.44 1.56 19.5 19.5 19.5 19.5 19.5 19.5 1.56
 75 3.6 3.6 3.6 3.9 19.5 19.5 19.5 19.5 19.5 19.5 3.9
 76 2.64 2.64 2.64 2.86 14.3 14.3 14.3 14.3 14.3 14.3 2.86
 81 0.0240.0240.0240.0260.026 3.9 3.9 3.9 3.9 3.9 3.90.026
 82 0.5550.5550.555.6012 4.81 48.1 48.1 48.1 48.1 48.1 48.1 4.81
 83 0.96 0.96 0.96 1.04 7.8 7.8 7.8 7.8 7.8 7.8 1.04
 84 1.44 1.44 1.44 1.56 19.5 19.5 19.5 19.5 19.5 19.5 1.56
 85 3.6 3.6 3.6 3.9 19.5 19.5 19.5 19.5 19.5 19.5 3.9
 86 2.64 2.64 2.64 2.86 14.3 14.3 14.3 14.3 14.3 14.3 2.86
 211 2140.0240.0240.0240.0260.026 3.9 3.9 3.9 3.9 3.9 3.90.026
 221 2240.5550.5550.555.6012 4.81 48.1 48.1 48.1 48.1 48.1 48.1 4.81
 231 234 0.96 0.96 0.96 1.04 7.8 7.8 7.8 7.8 7.8 7.8 1.04
 241 244 1.44 1.44 1.44 1.56 19.5 19.5 19.5 19.5 19.5 19.5 1.56
 251 254 3.6 3.6 3.6 3.9 19.5 19.5 19.5 19.5 19.5 19.5 3.9
 261 264 2.64 2.64 2.64 2.86 14.3 14.3 14.3 14.3 14.3 14.3 2.86
 271 0.0240.0240.0240.0260.026 3.9 3.9 3.9 3.9 3.9 3.90.026
 272 0.5550.5550.555.6012 4.81 48.1 48.1 48.1 48.1 48.1 48.1 4.81
 273 0.96 0.96 0.96 1.04 7.8 7.8 7.8 7.8 7.8 7.8 1.04
 274 1.44 1.44 1.44 1.56 19.5 19.5 19.5 19.5 19.5 19.5 1.56
 275 3.6 3.6 3.6 3.9 19.5 19.5 19.5 19.5 19.5 19.5 3.9
 276 2.64 2.64 2.64 2.86 14.3 14.3 14.3 14.3 14.3 14.3 2.86
 281 0.0240.0240.0240.0260.026 3.9 3.9 3.9 3.9 3.9 3.90.026
 282 0.5550.5550.555.6012 4.81 48.1 48.1 48.1 48.1 48.1 48.1 4.81
 283 0.96 0.96 0.96 1.04 7.8 7.8 7.8 7.8 7.8 7.8 1.04
 284 1.44 1.44 1.44 1.56 19.5 19.5 19.5 19.5 19.5 19.5 1.56
 285 3.6 3.6 3.6 3.9 19.5 19.5 19.5 19.5 19.5 19.5 3.9
 286 2.64 2.64 2.64 2.86 14.3 14.3 14.3 14.3 14.3 14.3 2.86
 311 3140.0240.0240.0240.0260.026 3.9 3.9 3.9 3.9 3.9 3.90.026
 321 3240.5550.5550.555.6012 4.81 48.1 48.1 48.1 48.1 48.1 48.1 4.81
 331 334 0.96 0.96 0.96 1.04 7.8 7.8 7.8 7.8 7.8 7.8 1.04
 341 344 1.44 1.44 1.44 1.56 19.5 19.5 19.5 19.5 19.5 19.5 1.56
 351 354 3.6 3.6 3.6 3.9 19.5 19.5 19.5 19.5 19.5 19.5 3.9
 361 364 2.64 2.64 2.64 2.86 14.3 14.3 14.3 14.3 14.3 14.3 2.86
 END MON-ACCUM

MON-SQOLIM

```

*** <PLS > Value at start of month for limiting storage of QUALOF (lb/ac)
*** x - x JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
11 14 0.3 0.3 0.30.3250.32548.7548.7548.7548.7548.754.8750.325
21 24 3.6 3.6 3.6 3.9 31.2 312 312 312 312 312 312 31.2
31 34 9.6 9.6 9.6 10.4 78 78 78 78 78 78 78 10.4
41 44 7.2 7.2 7.2 7.8 93.6 93.6 93.6 93.6 93.6 93.6 93.6 7.8
51 54 21.6 21.6 21.6 117 117 117 117 117 117 117 117 23.4
61 64 8.4 8.4 8.4 45.5 45.5 45.5 45.5 45.5 45.5 45.5 45.5 9.1
71 0.3 0.3 0.30.3250.32548.7548.7548.7548.7548.754.8750.325
72 3.6 3.6 3.6 3.9 31.2 312 312 312 312 312 312 31.2
73 9.6 9.6 9.6 10.4 78 78 78 78 78 78 78 10.4
74 7.2 7.2 7.2 7.8 93.6 93.6 93.6 93.6 93.6 93.6 93.6 7.8
75 21.6 21.6 21.6 117 117 117 117 117 117 117 117 23.4
76 8.4 8.4 8.4 45.5 45.5 45.5 45.5 45.5 45.5 45.5 45.5 9.1
81 0.3 0.3 0.30.3250.32548.7548.7548.7548.7548.754.8750.325
82 3.6 3.6 3.6 3.9 31.2 312 312 312 312 312 312 31.2
83 9.6 9.6 9.6 10.4 78 78 78 78 78 78 78 10.4
84 7.2 7.2 7.2 7.8 93.6 93.6 93.6 93.6 93.6 93.6 93.6 7.8
85 21.6 21.6 21.6 117 117 117 117 117 117 117 117 23.4
86 8.4 8.4 8.4 45.5 45.5 45.5 45.5 45.5 45.5 45.5 45.5 9.1
211 214 0.3 0.3 0.30.3250.32548.7548.7548.7548.7548.754.8750.325
221 224 3.6 3.6 3.6 3.9 31.2 312 312 312 312 312 312 31.2
231 234 9.6 9.6 9.6 10.4 78 78 78 78 78 78 78 10.4
241 244 7.2 7.2 7.2 7.8 93.6 93.6 93.6 93.6 93.6 93.6 93.6 7.8
251 254 21.6 21.6 21.6 117 117 117 117 117 117 117 117 23.4
261 264 8.4 8.4 8.4 45.5 45.5 45.5 45.5 45.5 45.5 45.5 45.5 9.1
271 0.3 0.3 0.30.3250.32548.7548.7548.7548.7548.754.8750.325
272 3.6 3.6 3.6 3.9 31.2 312 312 312 312 312 312 31.2
273 9.6 9.6 9.6 10.4 78 78 78 78 78 78 78 10.4
274 7.2 7.2 7.2 7.8 93.6 93.6 93.6 93.6 93.6 93.6 93.6 7.8
275 21.6 21.6 21.6 117 117 117 117 117 117 117 117 23.4
276 8.4 8.4 8.4 45.5 45.5 45.5 45.5 45.5 45.5 45.5 45.5 9.1
281 0.3 0.3 0.30.3250.32548.7548.7548.7548.7548.754.8750.325
282 3.6 3.6 3.6 3.9 31.2 312 312 312 312 312 312 31.2
283 9.6 9.6 9.6 10.4 78 78 78 78 78 78 78 10.4
284 7.2 7.2 7.2 7.8 93.6 93.6 93.6 93.6 93.6 93.6 93.6 7.8
285 21.6 21.6 21.6 117 117 117 117 117 117 117 117 23.4
286 8.4 8.4 8.4 45.5 45.5 45.5 45.5 45.5 45.5 45.5 45.5 9.1
311 314 0.3 0.3 0.30.3250.32548.7548.7548.7548.7548.754.8750.325
321 324 3.6 3.6 3.6 3.9 31.2 312 312 312 312 312 312 31.2
331 334 9.6 9.6 9.6 10.4 78 78 78 78 78 78 78 10.4
341 344 7.2 7.2 7.2 7.8 93.6 93.6 93.6 93.6 93.6 93.6 93.6 7.8
351 354 21.6 21.6 21.6 117 117 117 117 117 117 117 117 23.4
361 364 8.4 8.4 8.4 45.5 45.5 45.5 45.5 45.5 45.5 45.5 45.5 9.1
END MON-SQOLIM

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MON-IFLW-CONC

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*** <PLS > Conc of QUAL in interflow outflow for each month (qty/ft3)
*** x - x JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
11 142.e-72.e-72.e-72.e-72.e-7.0002.0002.0002.0002.00021.e-52.e-7
21 241.e-61.e-61.e-61.e-61.e-60.0030.0030.0030.0030.0035.e-51.e-6
31 342.e-72.e-72.e-72.e-72.e-7.0002.0002.0002.0002.00021.e-52.e-7
41 445.e-75.e-75.e-75.e-75.e-71.e-41.e-41.e-41.e-41.e-42.e-55.e-7
51 542.e-62.e-62.e-62.e-62.e-6.0003.0003.0003.0003.00035.e-52.e-6
61 644.e-74.e-74.e-74.e-74.e-75.e-55.e-55.e-55.e-55.e-52.e-54.e-7
71 2.e-72.e-72.e-72.e-72.e-7.0002.0002.0002.0002.00021.e-52.e-7
72 1.e-61.e-61.e-61.e-61.e-60.0030.0030.0030.0030.0035.e-51.e-6
73 2.e-72.e-72.e-72.e-72.e-7.0002.0002.0002.0002.00021.e-52.e-7
74 5.e-75.e-75.e-75.e-75.e-71.e-41.e-41.e-41.e-41.e-42.e-55.e-7
75 2.e-62.e-62.e-62.e-62.e-6.0003.0003.0003.0003.00035.e-52.e-6
76 4.e-74.e-74.e-74.e-74.e-75.e-55.e-55.e-55.e-55.e-52.e-54.e-7
81 2.e-72.e-72.e-72.e-72.e-7.0002.0002.0002.0002.00021.e-52.e-7
82 1.e-61.e-61.e-61.e-61.e-60.0030.0030.0030.0030.0035.e-51.e-6
83 2.e-72.e-72.e-72.e-72.e-7.0002.0002.0002.0002.00021.e-52.e-7
84 5.e-75.e-75.e-75.e-75.e-71.e-41.e-41.e-41.e-41.e-42.e-55.e-7
85 2.e-62.e-62.e-62.e-62.e-6.0003.0003.0003.0003.00035.e-52.e-6
86 4.e-74.e-74.e-74.e-74.e-75.e-55.e-55.e-55.e-55.e-52.e-54.e-7
211 2142.e-72.e-72.e-72.e-72.e-7.0002.0002.0002.0002.00021.e-52.e-7
221 2241.e-61.e-61.e-61.e-61.e-60.0030.0030.0030.0030.0035.e-51.e-6
231 2342.e-72.e-72.e-72.e-72.e-7.0002.0002.0002.0002.00021.e-52.e-7
241 2445.e-75.e-75.e-75.e-75.e-71.e-41.e-41.e-41.e-41.e-42.e-55.e-7
251 2542.e-62.e-62.e-62.e-62.e-6.0003.0003.0003.0003.00035.e-52.e-6
261 2644.e-74.e-74.e-74.e-74.e-75.e-55.e-55.e-55.e-55.e-52.e-54.e-7
271 2.e-72.e-72.e-72.e-72.e-7.0002.0002.0002.0002.00021.e-52.e-7
272 1.e-61.e-61.e-61.e-61.e-60.0030.0030.0030.0030.0035.e-51.e-6
273 2.e-72.e-72.e-72.e-72.e-7.0002.0002.0002.0002.00021.e-52.e-7

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274 5.e-75.e-75.e-75.e-75.e-71.e-41.e-41.e-41.e-41.e-42.e-55.e-7
275 2.e-62.e-62.e-62.e-62.e-6.0003.0003.0003.0003.00035.e-52.e-6
276 4.e-74.e-74.e-74.e-74.e-75.e-55.e-55.e-55.e-55.e-52.e-54.e-7
281 2.e-72.e-72.e-72.e-72.e-7.0002.0002.0002.0002.00021.e-52.e-7
282 1.e-61.e-61.e-61.e-61.e-60.0030.0030.0030.0030.0035.e-51.e-6
283 2.e-72.e-72.e-72.e-72.e-7.0002.0002.0002.0002.00021.e-52.e-7
284 5.e-75.e-75.e-75.e-75.e-71.e-41.e-41.e-41.e-41.e-42.e-55.e-7
285 2.e-62.e-62.e-62.e-62.e-6.0003.0003.0003.0003.00035.e-52.e-6
286 4.e-74.e-74.e-74.e-74.e-75.e-55.e-55.e-55.e-55.e-52.e-54.e-7
311 3142.e-72.e-72.e-72.e-72.e-7.0002.0002.0002.0002.00021.e-52.e-7
321 3241.e-61.e-61.e-61.e-61.e-60.0030.0030.0030.0030.0035.e-51.e-6
331 3342.e-72.e-72.e-72.e-72.e-7.0002.0002.0002.0002.00021.e-52.e-7
341 3445.e-75.e-75.e-75.e-75.e-71.e-41.e-41.e-41.e-41.e-42.e-55.e-7
351 3542.e-62.e-62.e-62.e-62.e-6.0003.0003.0003.0003.00035.e-52.e-6
361 3644.e-74.e-74.e-74.e-74.e-75.e-55.e-55.e-55.e-55.e-52.e-54.e-7
END MON-IFLW-CONC

```

MON-GRND-CONC

*** <PLS > Value at start of month for conc of QUAL in groundwater (qty/ft3)

```

*** x - x JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
11 141.e-61.e-61.e-61.e-61.e-66.e-73.e-63.e-62.e-62.e-61.e-61.e-6
21 242.e-52.e-52.e-52.e-52.e-51.e-58.e-68.e-66.e-66.e-62.e-52.e-5
31 348.e-68.e-68.e-68.e-68.e-65.e-66.e-66.e-65.e-65.e-68.e-68.e-6
41 446.e-66.e-66.e-66.e-66.e-64.e-65.e-55.e-54.e-54.e-56.e-66.e-6
51 542.e-52.e-52.e-52.e-52.e-51.e-5.0002.00021.e-41.e-42.e-52.e-5
61 646.e-66.e-66.e-66.e-66.e-64.e-65.e-55.e-54.e-54.e-56.e-66.e-6
71 1.e-61.e-61.e-61.e-61.e-66.e-73.e-63.e-62.e-62.e-61.e-61.e-6
72 2.e-52.e-52.e-52.e-52.e-51.e-58.e-68.e-66.e-66.e-62.e-52.e-5
73 8.e-68.e-68.e-68.e-68.e-65.e-66.e-66.e-65.e-65.e-68.e-68.e-6
74 6.e-66.e-66.e-66.e-66.e-64.e-65.e-55.e-54.e-54.e-56.e-66.e-6
75 2.e-52.e-52.e-52.e-52.e-51.e-5.0002.00021.e-41.e-42.e-52.e-5
76 6.e-66.e-66.e-66.e-66.e-64.e-65.e-55.e-54.e-54.e-56.e-66.e-6
81 1.e-61.e-61.e-61.e-61.e-66.e-73.e-63.e-62.e-62.e-61.e-61.e-6
82 2.e-52.e-52.e-52.e-52.e-51.e-58.e-68.e-66.e-66.e-62.e-52.e-5
83 8.e-68.e-68.e-68.e-68.e-65.e-66.e-66.e-65.e-65.e-68.e-68.e-6
84 6.e-66.e-66.e-66.e-66.e-64.e-65.e-55.e-54.e-54.e-56.e-66.e-6
85 2.e-52.e-52.e-52.e-52.e-51.e-5.0002.00021.e-41.e-42.e-52.e-5
86 6.e-66.e-66.e-66.e-66.e-64.e-65.e-55.e-54.e-54.e-56.e-66.e-6
211 2141.e-61.e-61.e-61.e-61.e-66.e-73.e-63.e-62.e-62.e-61.e-61.e-6
221 2242.e-52.e-52.e-52.e-52.e-51.e-58.e-68.e-66.e-66.e-62.e-52.e-5
231 2348.e-68.e-68.e-68.e-68.e-65.e-66.e-66.e-65.e-65.e-68.e-68.e-6
241 2446.e-66.e-66.e-66.e-66.e-64.e-65.e-55.e-54.e-54.e-56.e-66.e-6
251 2542.e-52.e-52.e-52.e-52.e-51.e-5.0002.00021.e-41.e-42.e-52.e-5
261 2646.e-66.e-66.e-66.e-66.e-64.e-65.e-55.e-54.e-54.e-56.e-66.e-6
271 1.e-61.e-61.e-61.e-61.e-66.e-73.e-63.e-62.e-62.e-61.e-61.e-6
272 2.e-52.e-52.e-52.e-52.e-51.e-58.e-68.e-66.e-66.e-62.e-52.e-5
273 8.e-68.e-68.e-68.e-68.e-65.e-66.e-66.e-65.e-65.e-68.e-68.e-6
274 6.e-66.e-66.e-66.e-66.e-64.e-65.e-55.e-54.e-54.e-56.e-66.e-6
275 2.e-52.e-52.e-52.e-52.e-51.e-5.0002.00021.e-41.e-42.e-52.e-5
276 6.e-66.e-66.e-66.e-66.e-64.e-65.e-55.e-54.e-54.e-56.e-66.e-6
281 1.e-61.e-61.e-61.e-61.e-66.e-73.e-63.e-62.e-62.e-61.e-61.e-6
282 2.e-52.e-52.e-52.e-52.e-51.e-58.e-68.e-66.e-66.e-62.e-52.e-5
283 8.e-68.e-68.e-68.e-68.e-65.e-66.e-66.e-65.e-65.e-68.e-68.e-6
284 6.e-66.e-66.e-66.e-66.e-64.e-65.e-55.e-54.e-54.e-56.e-66.e-6
285 2.e-52.e-52.e-52.e-52.e-51.e-5.0002.00021.e-41.e-42.e-52.e-5
286 6.e-66.e-66.e-66.e-66.e-64.e-65.e-55.e-54.e-54.e-56.e-66.e-6
311 3141.e-61.e-61.e-61.e-61.e-66.e-73.e-63.e-62.e-62.e-61.e-61.e-6
321 3242.e-52.e-52.e-52.e-52.e-51.e-58.e-68.e-66.e-66.e-62.e-52.e-5
331 3348.e-68.e-68.e-68.e-68.e-65.e-66.e-66.e-65.e-65.e-68.e-68.e-6
341 3446.e-66.e-66.e-66.e-66.e-64.e-65.e-55.e-54.e-54.e-56.e-66.e-6
351 3542.e-52.e-52.e-52.e-52.e-51.e-5.0002.00021.e-41.e-42.e-52.e-5
361 3646.e-66.e-66.e-66.e-66.e-64.e-65.e-55.e-54.e-54.e-56.e-66.e-6
END MON-GRND-CONC

```

QUAL-PROPS

*** <PLS > Identifiers and Flags

```

*** x - x QUALID QTID QSD VPFW VPFS QSO VQO QIFW VIQC QAGW VAQC
11 364COPPER LBS 1 1 0 0 0 1 3 1 3
END QUAL-PROPS

```

QUAL-INPUT

*** Storage on surface and nonseasonal parameters

```

*** SQO POTFS POTFS ACQOP SQOLIM WSQOP IOQC AOQC
*** <PLS > qty/ac qty/ton qty/ton qty/ qty/ac in/hr qty/ft3 qty/ft3
*** x - x ac.day
11 364 0. 0. 0. 0.0.000001 0. 0. 0.

```

END QUAL-INPUT

MON-POTFW

*** <PLS > Value at start of each month for washoff potency factor (lb/ton)

*** x - x JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

11	140.3750.375	0.45	0.450.375	3.5	3.5	3.5	3.5	3.50.8750.3750.375
21	24 0.24 0.240.2880.288	0.33	2.2	2.2	2.2	2.2	2.2	0.55 0.24 0.24
31	44.0688.0688.0826.0826.0688	0.22	0.22	0.22	0.220.055.0688.0688			
51	64 0.13 0.130.1560.156	0.13	0.39	0.39	0.39	0.39	0.39	0.0975 0.13 0.13
71	0.3750.375	0.45	0.450.375	3.5	3.5	3.5	3.5	3.50.8750.3750.375
72	0.24 0.240.2880.288	0.33	2.2	2.2	2.2	2.2	2.2	0.55 0.24 0.24
73	74.0688.0688.0826.0826.0688	0.22	0.22	0.22	0.220.055.0688.0688			
75	76 0.13 0.130.1560.156	0.13	0.39	0.39	0.39	0.39	0.39	0.0975 0.13 0.13
81	0.3750.375	0.45	0.450.375	3.5	3.5	3.5	3.5	3.50.8750.3750.375
82	0.24 0.240.2880.288	0.33	2.2	2.2	2.2	2.2	2.2	0.55 0.24 0.24
83	84.0688.0688.0826.0826.0688	0.22	0.22	0.22	0.220.055.0688.0688			
85	86 0.13 0.130.1560.156	0.13	0.39	0.39	0.39	0.39	0.39	0.0975 0.13 0.13
211	2140.3750.375	0.45	0.450.375	3.5	3.5	3.5	3.5	3.50.8750.3750.375
221	224 0.24 0.240.2880.288	0.33	2.2	2.2	2.2	2.2	2.2	0.55 0.24 0.24
231	244.0688.0688.0826.0826.0688	0.22	0.22	0.22	0.220.055.0688.0688			
251	264 0.13 0.130.1560.156	0.13	0.39	0.39	0.39	0.39	0.39	0.0975 0.13 0.13
271	0.3750.375	0.45	0.450.375	3.5	3.5	3.5	3.5	3.50.8750.3750.375
272	0.24 0.240.2880.288	0.33	2.2	2.2	2.2	2.2	2.2	0.55 0.24 0.24
273	274.0688.0688.0826.0826.0688	0.22	0.22	0.22	0.220.055.0688.0688			
275	276 0.13 0.130.1560.156	0.13	0.39	0.39	0.39	0.39	0.39	0.0975 0.13 0.13
281	0.3750.375	0.45	0.450.375	3.5	3.5	3.5	3.5	3.50.8750.3750.375
282	0.24 0.240.2880.288	0.33	2.2	2.2	2.2	2.2	2.2	0.55 0.24 0.24
283	284.0688.0688.0826.0826.0688	0.22	0.22	0.22	0.220.055.0688.0688			
285	286 0.13 0.130.1560.156	0.13	0.39	0.39	0.39	0.39	0.39	0.0975 0.13 0.13
311	3140.3750.375	0.45	0.450.375	3.5	3.5	3.5	3.5	3.50.8750.3750.375
321	324 0.24 0.240.2880.288	0.33	2.2	2.2	2.2	2.2	2.2	0.55 0.24 0.24
331	344.0688.0688.0826.0826.0688	0.22	0.22	0.22	0.220.055.0688.0688			
351	364 0.13 0.130.1560.156	0.13	0.39	0.39	0.39	0.39	0.39	0.0975 0.13 0.13

END MON-POTFW

MON-IFLW-CONC

*** <PLS > Conc of QUAL in interflow outflow for each month (qty/ft3)

*** x - x JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

11	14.0016.0016.0016.0016.0016.0016.0016.0016.0016.0016.0016											
21	24.0012.0012.0012.0012.0008.0016.0016.0016.0016.0016.0016.0024.0012											
31	34.0016.0016.0016.0016.0016.0016.0032.0032.0032.0032.0032.0032.0016											
41	440.0040.0040.0040.0040.004.0096.0096.0096.0096.0096.0096.0096.004											
51	640.0060.0060.0060.0060.0060.0240.0240.0240.0240.0240.0240.006											
71	.0016.0016.0016.0016.0016.0016.0016.0016.0016.0016.0016.0016											
72	.0012.0012.0012.0012.0008.0016.0016.0016.0016.0016.0016.0024.0012											
73	.0016.0016.0016.0016.0016.0032.0032.0032.0032.0032.0032.0016											
74	0.0040.0040.0040.0040.004.0096.0096.0096.0096.0096.0096.0096.004											
75	760.0060.0060.0060.0060.0060.0240.0240.0240.0240.0240.0240.006											
81	.0016.0016.0016.0016.0016.0016.0016.0016.0016.0016.0016.0016											
82	.0012.0012.0012.0012.0008.0016.0016.0016.0016.0016.0016.0024.0012											
83	.0016.0016.0016.0016.0016.0032.0032.0032.0032.0032.0032.0016											
84	0.0040.0040.0040.0040.004.0096.0096.0096.0096.0096.0096.0096.004											
85	860.0060.0060.0060.0060.0060.0240.0240.0240.0240.0240.0240.006											
211	214.0016.0016.0016.0016.0016.0016.0016.0016.0016.0016.0016.0016											
221	224.0012.0012.0012.0012.0008.0016.0016.0016.0016.0016.0016.0024.0012											
231	234.0016.0016.0016.0016.0016.0016.0032.0032.0032.0032.0032.0032.0016											
241	2440.0040.0040.0040.0040.004.0096.0096.0096.0096.0096.0096.004											
251	2640.0060.0060.0060.0060.0060.0240.0240.0240.0240.0240.0240.006											
271	.0016.0016.0016.0016.0016.0016.0016.0016.0016.0016.0016.0016											
272	.0012.0012.0012.0012.0008.0016.0016.0016.0016.0016.0016.0024.0012											
273	.0016.0016.0016.0016.0016.0032.0032.0032.0032.0032.0032.0016											
274	0.0040.0040.0040.0040.004.0096.0096.0096.0096.0096.0096.0096.004											
275	2760.0060.0060.0060.0060.0060.0240.0240.0240.0240.0240.0240.006											
281	.0016.0016.0016.0016.0016.0016.0016.0016.0016.0016.0016.0016											
282	.0012.0012.0012.0012.0008.0016.0016.0016.0016.0016.0016.0024.0012											
283	.0016.0016.0016.0016.0016.0032.0032.0032.0032.0032.0032.0016											
284	0.0040.0040.0040.0040.004.0096.0096.0096.0096.0096.0096.0096.004											
285	2860.0060.0060.0060.0060.0060.0240.0240.0240.0240.0240.0240.006											
311	314.0016.0016.0016.0016.0016.0016.0016.0016.0016.0016.0016.0016											
321	324.0012.0012.0012.0012.0008.0016.0016.0016.0016.0016.0016.0024.0012											
331	334.0016.0016.0016.0016.0016.0016.0032.0032.0032.0032.0032.0032.0016											
341	3440.0040.0040.0040.0040.004.0096.0096.0096.0096.0096.0096.004											
351	3640.0060.0060.0060.0060.0060.0240.0240.0240.0240.0240.0240.006											

END MON-IFLW-CONC

MON-GRND-CONC

```

*** <PLS > Value at start of month for conc of QUAL in groundwater (qty/ft3)
*** x - x JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
11 14.0002.0002.0002.0002.00026.e-56.e-56.e-56.e-56.e-56.e-5.0002
21 241.e-41.e-41.e-41.e-41.e-46.e-56.e-56.e-56.e-56.e-56.e-51.e-4
31 34.0003.0003.0003.0003.00031.e-41.e-41.e-41.e-41.e-41.e-4.0003
41 44.0005.0005.0005.0005.0005.0004.0004.0004.0004.0004.0004.0005
51 640.0030.0030.0030.0030.003.0036.0036.0036.0036.0036.00360.003
71 .0002.0002.0002.0002.00026.e-56.e-56.e-56.e-56.e-56.e-5.0002
72 1.e-41.e-41.e-41.e-41.e-46.e-56.e-56.e-56.e-56.e-56.e-51.e-4
73 .0003.0003.0003.0003.00031.e-41.e-41.e-41.e-41.e-41.e-4.0003
74 .0005.0005.0005.0005.0005.0004.0004.0004.0004.0004.0004.0005
75 760.0030.0030.0030.0030.003.0036.0036.0036.0036.0036.00360.003
81 .0002.0002.0002.0002.00026.e-56.e-56.e-56.e-56.e-56.e-5.0002
82 1.e-41.e-41.e-41.e-41.e-46.e-56.e-56.e-56.e-56.e-56.e-51.e-4
83 .0003.0003.0003.0003.00031.e-41.e-41.e-41.e-41.e-41.e-4.0003
84 .0005.0005.0005.0005.0005.0004.0004.0004.0004.0004.0004.0005
85 860.0030.0030.0030.0030.003.0036.0036.0036.0036.0036.00360.003
211 214.0002.0002.0002.0002.00026.e-56.e-56.e-56.e-56.e-56.e-5.0002
221 2241.e-41.e-41.e-41.e-41.e-46.e-56.e-56.e-56.e-56.e-56.e-51.e-4
231 234.0003.0003.0003.0003.00031.e-41.e-41.e-41.e-41.e-41.e-4.0003
241 244.0005.0005.0005.0005.0005.0004.0004.0004.0004.0004.0004.0005
251 2640.0030.0030.0030.0030.003.0036.0036.0036.0036.0036.00360.003
271 .0002.0002.0002.0002.00026.e-56.e-56.e-56.e-56.e-56.e-5.0002
272 1.e-41.e-41.e-41.e-41.e-46.e-56.e-56.e-56.e-56.e-56.e-51.e-4
273 .0003.0003.0003.0003.00031.e-41.e-41.e-41.e-41.e-41.e-4.0003
274 .0005.0005.0005.0005.0005.0004.0004.0004.0004.0004.0004.0005
275 2760.0030.0030.0030.0030.003.0036.0036.0036.0036.0036.00360.003
281 .0002.0002.0002.0002.00026.e-56.e-56.e-56.e-56.e-56.e-5.0002
282 1.e-41.e-41.e-41.e-41.e-46.e-56.e-56.e-56.e-56.e-56.e-51.e-4
283 .0003.0003.0003.0003.00031.e-41.e-41.e-41.e-41.e-41.e-4.0003
284 .0005.0005.0005.0005.0005.0004.0004.0004.0004.0004.0004.0005
285 2860.0030.0030.0030.0030.003.0036.0036.0036.0036.0036.00360.003
311 314.0002.0002.0002.0002.00026.e-56.e-56.e-56.e-56.e-56.e-5.0002
321 3241.e-41.e-41.e-41.e-41.e-46.e-56.e-56.e-56.e-56.e-56.e-51.e-4
331 334.0003.0003.0003.0003.00031.e-41.e-41.e-41.e-41.e-41.e-4.0003
341 344.0005.0005.0005.0005.0005.0004.0004.0004.0004.0004.0004.0005
351 3640.0030.0030.0030.0030.003.0036.0036.0036.0036.0036.00360.003
END MON-GRND-CONC

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QUAL-PROPS

```

*** <PLS > Identifiers and Flags
*** x - x QUALID QTID QSD VPFW VPFS QSO VQO QIFW VIQC QAGW VAQC
11 364FecColi 10^9 0 0 0 2 1 1 1 1 1
END QUAL-PROPS

```

QUAL-INPUT

```

*** Storage on surface and nonseasonal parameters
*** SQO POTFW POTFS ACQOP SQOLIM WSQOP IOQC AOQC
*** <PLS > qty/ac qty/ton qty/ton qty/ ac.day qty/ac in/hr qty/ft3 qty/ft3
*** x - x
11 364 0. 0. 0. 0.0.000001 2. 0. 0.
END QUAL-INPUT

```

MON-ACCUM

```

*** <PLS > Value at start of each month for accum rate of QUALOF (lb/ac.day)
*** x - x JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
11 140.0480.0480.0480.0480.048 4.5 4.5 4.5 4.5 4.5 1.6 0.08
21 240.2220.2220.2220.22213.3283.2583.2583.2583.2583.25 111 37
31 34 0.48 0.48 0.48 4.8 4.8 6 6 6 6 6 8 0.8
41 44 2.4 2.4 2.4 18 18 22.5 22.5 22.5 22.5 22.5 30 4
51 54 3.6 3.6 3.6 27 2733.7533.7533.7533.7533.75 45 6
61 64 1.32 1.32 1.32 13.2 13.2 16.5 16.5 16.5 16.5 16.5 22 2.2
71 0.0480.0480.0480.0480.048 4.5 4.5 4.5 4.5 4.5 1.6 0.08
72 0.2220.2220.2220.22213.3283.2583.2583.2583.2583.25 111 37
73 0.48 0.48 0.48 4.8 4.8 6 6 6 6 6 8 0.8
74 2.4 2.4 2.4 18 18 22.5 22.5 22.5 22.5 22.5 30 4
75 3.6 3.6 3.6 27 2733.7533.7533.7533.7533.75 45 6
76 1.32 1.32 1.32 13.2 13.2 16.5 16.5 16.5 16.5 16.5 22 2.2
81 0.0480.0480.0480.0480.048 4.5 4.5 4.5 4.5 4.5 1.6 0.08
82 0.2220.2220.2220.22213.3283.2583.2583.2583.2583.25 111 37
83 0.48 0.48 0.48 4.8 4.8 6 6 6 6 6 8 0.8
84 2.4 2.4 2.4 18 18 22.5 22.5 22.5 22.5 22.5 30 4
85 3.6 3.6 3.6 27 2733.7533.7533.7533.7533.75 45 6
86 1.32 1.32 1.32 13.2 13.2 16.5 16.5 16.5 16.5 16.5 22 2.2
211 2140.0480.0480.0480.0480.048 4.5 4.5 4.5 4.5 4.5 1.6 0.08
221 2240.2220.2220.2220.22213.3283.2583.2583.2583.2583.25 111 37

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Black/Springbrook UCI File

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231 234 0.48 0.48 0.48 4.8 4.8 6 6 6 6 6 8 0.8
241 244 2.4 2.4 2.4 18 18 22.5 22.5 22.5 22.5 22.5 30 4
251 254 3.6 3.6 3.6 27 2733.7533.7533.7533.7533.75 45 6
261 264 1.32 1.32 1.32 13.2 13.2 16.5 16.5 16.5 16.5 16.5 22 2.2
271 0.0480.0480.0480.0480.048 4.5 4.5 4.5 4.5 4.5 1.6 0.08
272 0.2220.2220.2220.22213.3283.2583.2583.2583.2583.25 111 37
273 0.48 0.48 0.48 4.8 4.8 6 6 6 6 6 8 0.8
274 2.4 2.4 2.4 18 18 22.5 22.5 22.5 22.5 22.5 30 4
275 3.6 3.6 3.6 27 2733.7533.7533.7533.7533.75 45 6
276 1.32 1.32 1.32 13.2 13.2 16.5 16.5 16.5 16.5 16.5 22 2.2
281 0.0480.0480.0480.0480.048 4.5 4.5 4.5 4.5 4.5 1.6 0.08
282 0.2220.2220.2220.22213.3283.2583.2583.2583.2583.25 111 37
283 0.48 0.48 0.48 4.8 4.8 6 6 6 6 6 8 0.8
284 2.4 2.4 2.4 18 18 22.5 22.5 22.5 22.5 22.5 30 4
285 3.6 3.6 3.6 27 2733.7533.7533.7533.7533.75 45 6
286 1.32 1.32 1.32 13.2 13.2 16.5 16.5 16.5 16.5 16.5 22 2.2
311 3140.0480.0480.0480.0480.048 4.5 4.5 4.5 4.5 4.5 1.6 0.08
321 3240.2220.2220.2220.22213.3283.2583.2583.2583.2583.25 111 37
331 334 0.48 0.48 0.48 4.8 4.8 6 6 6 6 6 8 0.8
341 344 2.4 2.4 2.4 18 18 22.5 22.5 22.5 22.5 22.5 30 4
351 354 3.6 3.6 3.6 27 2733.7533.7533.7533.7533.75 45 6
361 364 1.32 1.32 1.32 13.2 13.2 16.5 16.5 16.5 16.5 16.5 22 2.2
END MON-ACCUM

```

MON-SQOLIM

```

*** <PLS > Value at start of month for limiting storage of QUALOF (lb/ac)
*** x - x JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
11 14 0.6 0.6 0.6 0.6 0.656.2556.2556.2556.2556.25 20 1
21 24 1.44 1.44 1.44 1.44 86.4 540 540 540 540 540 720 240
31 34 4.8 4.8 4.8 48 48 60 60 60 60 60 80 8
41 44 14.4 14.4 14.4 108 108 135 135 135 135 135 180 24
51 54 21.6 21.6 21.6 162 162202.5202.5202.5202.5202.5 270 36
61 64 4.2 4.2 4.2 42 42 52.5 52.5 52.5 52.5 52.5 70 7
71 0.6 0.6 0.6 0.6 0.656.2556.2556.2556.2556.25 20 1
72 1.44 1.44 1.44 1.44 86.4 540 540 540 540 540 720 240
73 4.8 4.8 4.8 48 48 60 60 60 60 60 80 8
74 14.4 14.4 14.4 108 108 135 135 135 135 135 180 24
75 21.6 21.6 21.6 162 162202.5202.5202.5202.5202.5 270 36
76 4.2 4.2 4.2 42 42 52.5 52.5 52.5 52.5 52.5 70 7
81 0.6 0.6 0.6 0.6 0.656.2556.2556.2556.2556.25 20 1
82 1.44 1.44 1.44 1.44 86.4 540 540 540 540 540 720 240
83 4.8 4.8 4.8 48 48 60 60 60 60 60 80 8
84 14.4 14.4 14.4 108 108 135 135 135 135 135 180 24
85 21.6 21.6 21.6 162 162202.5202.5202.5202.5202.5 270 36
86 4.2 4.2 4.2 42 42 52.5 52.5 52.5 52.5 52.5 70 7
211 214 0.6 0.6 0.6 0.6 0.656.2556.2556.2556.2556.25 20 1
221 224 1.44 1.44 1.44 1.44 86.4 540 540 540 540 540 720 240
231 234 4.8 4.8 4.8 48 48 60 60 60 60 60 80 8
241 244 14.4 14.4 14.4 108 108 135 135 135 135 135 180 24
251 254 21.6 21.6 21.6 162 162202.5202.5202.5202.5202.5 270 36
261 264 4.2 4.2 4.2 42 42 52.5 52.5 52.5 52.5 52.5 70 7
271 0.6 0.6 0.6 0.6 0.656.2556.2556.2556.2556.25 20 1
272 1.44 1.44 1.44 1.44 86.4 540 540 540 540 540 720 240
273 4.8 4.8 4.8 48 48 60 60 60 60 60 80 8
274 14.4 14.4 14.4 108 108 135 135 135 135 135 180 24
275 21.6 21.6 21.6 162 162202.5202.5202.5202.5202.5 270 36
276 4.2 4.2 4.2 42 42 52.5 52.5 52.5 52.5 52.5 70 7
281 0.6 0.6 0.6 0.6 0.656.2556.2556.2556.2556.25 20 1
282 1.44 1.44 1.44 1.44 86.4 540 540 540 540 540 720 240
283 4.8 4.8 4.8 48 48 60 60 60 60 60 80 8
284 14.4 14.4 14.4 108 108 135 135 135 135 135 180 24
285 21.6 21.6 21.6 162 162202.5202.5202.5202.5202.5 270 36
286 4.2 4.2 4.2 42 42 52.5 52.5 52.5 52.5 52.5 70 7
311 314 0.6 0.6 0.6 0.6 0.656.2556.2556.2556.2556.25 20 1
321 324 1.44 1.44 1.44 1.44 86.4 540 540 540 540 540 720 240
331 334 4.8 4.8 4.8 48 48 60 60 60 60 60 80 8
341 344 14.4 14.4 14.4 108 108 135 135 135 135 135 180 24
351 354 21.6 21.6 21.6 162 162202.5202.5202.5202.5202.5 270 36
361 364 4.2 4.2 4.2 42 42 52.5 52.5 52.5 52.5 52.5 70 7
END MON-SQOLIM

```

MON-IFLW-CONC

```

*** <PLS > Conc of QUAL in interflow outflow for each month (qty/ft3)
*** x - x JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
11 148E-088E-088E-088E-088E-082.e-52.e-52.e-52.e-52.e-54.e-68E-08
21 248.e-78.e-78.e-78.e-78.e-7.0004.0004.0004.0004.00046.e-58.e-7

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31 341.e-71.e-71.e-71.e-71.e-74.e-54.e-54.e-54.e-54.e-55.e-61.e-7
41 442.e-72.e-72.e-72.e-72.e-72.e-52.e-52.e-52.e-52.e-51.e-52.e-7
51 546.e-76.e-76.e-76.e-76.e-76.e-56.e-56.e-56.e-56.e-52.e-56.e-7
61 641.e-71.e-71.e-71.e-71.e-71.e-51.e-51.e-51.e-51.e-57.e-61.e-7
71 8E-088E-088E-088E-088E-082.e-52.e-52.e-52.e-52.e-54.e-68E-08
72 8.e-78.e-78.e-78.e-78.e-7.0004.0004.0004.0004.00046.e-58.e-7
73 1.e-71.e-71.e-71.e-71.e-74.e-54.e-54.e-54.e-54.e-55.e-61.e-7
74 2.e-72.e-72.e-72.e-72.e-72.e-52.e-52.e-52.e-52.e-51.e-52.e-7
75 6.e-76.e-76.e-76.e-76.e-76.e-56.e-56.e-56.e-56.e-52.e-56.e-7
76 1.e-71.e-71.e-71.e-71.e-71.e-51.e-51.e-51.e-51.e-57.e-61.e-7
81 8E-088E-088E-088E-088E-082.e-52.e-52.e-52.e-52.e-54.e-68E-08
82 8.e-78.e-78.e-78.e-78.e-7.0004.0004.0004.0004.00046.e-58.e-7
83 1.e-71.e-71.e-71.e-71.e-74.e-54.e-54.e-54.e-54.e-55.e-61.e-7
84 2.e-72.e-72.e-72.e-72.e-72.e-52.e-52.e-52.e-52.e-51.e-52.e-7
85 6.e-76.e-76.e-76.e-76.e-76.e-56.e-56.e-56.e-56.e-52.e-56.e-7
86 1.e-71.e-71.e-71.e-71.e-71.e-51.e-51.e-51.e-51.e-57.e-61.e-7
211 2148E-088E-088E-088E-088E-082.e-52.e-52.e-52.e-52.e-54.e-68E-08
221 2248.e-78.e-78.e-78.e-78.e-7.0004.0004.0004.0004.00046.e-58.e-7
231 2341.e-71.e-71.e-71.e-71.e-74.e-54.e-54.e-54.e-54.e-55.e-61.e-7
241 2442.e-72.e-72.e-72.e-72.e-72.e-52.e-52.e-52.e-52.e-51.e-52.e-7
251 2546.e-76.e-76.e-76.e-76.e-76.e-56.e-56.e-56.e-56.e-52.e-56.e-7
261 2641.e-71.e-71.e-71.e-71.e-71.e-51.e-51.e-51.e-51.e-57.e-61.e-7
271 8E-088E-088E-088E-088E-082.e-52.e-52.e-52.e-52.e-54.e-68E-08
272 8.e-78.e-78.e-78.e-78.e-7.0004.0004.0004.0004.00046.e-58.e-7
273 1.e-71.e-71.e-71.e-71.e-74.e-54.e-54.e-54.e-54.e-55.e-61.e-7
274 2.e-72.e-72.e-72.e-72.e-72.e-52.e-52.e-52.e-52.e-51.e-52.e-7
275 6.e-76.e-76.e-76.e-76.e-76.e-56.e-56.e-56.e-56.e-52.e-56.e-7
276 1.e-71.e-71.e-71.e-71.e-71.e-51.e-51.e-51.e-51.e-57.e-61.e-7
281 8E-088E-088E-088E-088E-082.e-52.e-52.e-52.e-52.e-54.e-68E-08
282 8.e-78.e-78.e-78.e-78.e-7.0004.0004.0004.0004.00046.e-58.e-7
283 1.e-71.e-71.e-71.e-71.e-74.e-54.e-54.e-54.e-54.e-55.e-61.e-7
284 2.e-72.e-72.e-72.e-72.e-72.e-52.e-52.e-52.e-52.e-51.e-52.e-7
285 6.e-76.e-76.e-76.e-76.e-76.e-56.e-56.e-56.e-56.e-52.e-56.e-7
286 1.e-71.e-71.e-71.e-71.e-71.e-51.e-51.e-51.e-51.e-57.e-61.e-7
311 3148E-088E-088E-088E-088E-082.e-52.e-52.e-52.e-52.e-54.e-68E-08
321 3248.e-78.e-78.e-78.e-78.e-7.0004.0004.0004.0004.00046.e-58.e-7
331 3341.e-71.e-71.e-71.e-71.e-74.e-54.e-54.e-54.e-54.e-55.e-61.e-7
341 3442.e-72.e-72.e-72.e-72.e-72.e-52.e-52.e-52.e-52.e-51.e-52.e-7
351 3546.e-76.e-76.e-76.e-76.e-76.e-56.e-56.e-56.e-56.e-52.e-56.e-7
361 3641.e-71.e-71.e-71.e-71.e-71.e-51.e-51.e-51.e-51.e-57.e-61.e-7
END MON-IFLW-CONC

```

MON-GRND-CONC

*** <PLS > Value at start of month for conc of QUAL in groundwater (qty/ft3)

```

*** x - x JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
11 141.e-71.e-71.e-71.e-71.e-72.e-64.e-64.e-62.e-62.e-61.e-71.e-7
21 241.e-51.e-51.e-51.e-51.e-53.e-54.e-54.e-53.e-53.e-51.e-51.e-5
31 345.e-75.e-75.e-75.e-75.e-76.e-69.e-69.e-66.e-66.e-65.e-75.e-7
41 444.e-64.e-64.e-64.e-64.e-64.e-64.e-68.e-58.e-55.e-55.e-54.e-64.e-6
51 541.e-51.e-51.e-51.e-51.e-51.e-51.e-41.e-41.e-41.e-41.e-51.e-5
61 647.e-67.e-67.e-67.e-67.e-67.e-61.e-41.e-41.e-41.e-47.e-67.e-6
71 1.e-71.e-71.e-71.e-71.e-72.e-64.e-64.e-62.e-62.e-61.e-71.e-7
72 1.e-51.e-51.e-51.e-51.e-53.e-54.e-54.e-53.e-53.e-51.e-51.e-5
73 5.e-75.e-75.e-75.e-75.e-76.e-69.e-69.e-66.e-66.e-65.e-75.e-7
74 4.e-64.e-64.e-64.e-64.e-64.e-68.e-58.e-55.e-55.e-54.e-64.e-6
75 1.e-51.e-51.e-51.e-51.e-51.e-51.e-41.e-41.e-41.e-41.e-51.e-5
76 7.e-67.e-67.e-67.e-67.e-67.e-61.e-41.e-41.e-41.e-47.e-67.e-6
81 1.e-71.e-71.e-71.e-71.e-72.e-64.e-64.e-62.e-62.e-61.e-71.e-7
82 1.e-51.e-51.e-51.e-51.e-53.e-54.e-54.e-53.e-53.e-51.e-51.e-5
83 5.e-75.e-75.e-75.e-75.e-76.e-69.e-69.e-66.e-66.e-65.e-75.e-7
84 4.e-64.e-64.e-64.e-64.e-64.e-68.e-58.e-55.e-55.e-54.e-64.e-6
85 1.e-51.e-51.e-51.e-51.e-51.e-51.e-41.e-41.e-41.e-41.e-51.e-5
86 7.e-67.e-67.e-67.e-67.e-67.e-61.e-41.e-41.e-41.e-47.e-67.e-6
211 2141.e-71.e-71.e-71.e-71.e-72.e-64.e-64.e-62.e-62.e-61.e-71.e-7
221 2241.e-51.e-51.e-51.e-51.e-53.e-54.e-54.e-53.e-53.e-51.e-51.e-5
231 2345.e-75.e-75.e-75.e-75.e-76.e-69.e-69.e-66.e-66.e-65.e-75.e-7
241 2444.e-64.e-64.e-64.e-64.e-64.e-68.e-58.e-55.e-55.e-54.e-64.e-6
251 2541.e-51.e-51.e-51.e-51.e-51.e-51.e-41.e-41.e-41.e-41.e-51.e-5
261 2647.e-67.e-67.e-67.e-67.e-67.e-61.e-41.e-41.e-41.e-47.e-67.e-6
271 1.e-71.e-71.e-71.e-71.e-72.e-64.e-64.e-62.e-62.e-61.e-71.e-7
272 1.e-51.e-51.e-51.e-51.e-53.e-54.e-54.e-53.e-53.e-51.e-51.e-5
273 5.e-75.e-75.e-75.e-75.e-76.e-69.e-69.e-66.e-66.e-65.e-75.e-7
274 4.e-64.e-64.e-64.e-64.e-64.e-68.e-58.e-55.e-55.e-54.e-64.e-6
275 1.e-51.e-51.e-51.e-51.e-51.e-51.e-41.e-41.e-41.e-41.e-51.e-5
276 7.e-67.e-67.e-67.e-67.e-67.e-61.e-41.e-41.e-41.e-47.e-67.e-6
281 1.e-71.e-71.e-71.e-71.e-72.e-64.e-64.e-62.e-62.e-61.e-71.e-7

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282 1.e-51.e-51.e-51.e-51.e-53.e-54.e-54.e-53.e-53.e-51.e-51.e-5
283 5.e-75.e-75.e-75.e-75.e-76.e-69.e-69.e-66.e-66.e-65.e-75.e-7
284 4.e-64.e-64.e-64.e-64.e-64.e-68.e-58.e-55.e-55.e-54.e-64.e-6
285 1.e-51.e-51.e-51.e-51.e-51.e-51.e-51.e-41.e-41.e-41.e-41.e-5
286 7.e-67.e-67.e-67.e-67.e-67.e-61.e-41.e-41.e-41.e-47.e-67.e-6
311 3148.e-88.e-87.e-87.e-87.e-81.e-62.e-62.e-61.e-61.e-68.e-88.e-8
321 3241.e-51.e-51.e-51.e-51.e-53.e-54.e-54.e-53.e-53.e-51.e-51.e-5
331 3345.e-75.e-75.e-75.e-75.e-76.e-69.e-69.e-66.e-66.e-65.e-75.e-7
341 3444.e-64.e-64.e-64.e-64.e-64.e-68.e-58.e-55.e-55.e-54.e-64.e-6
351 3541.e-51.e-51.e-51.e-51.e-51.e-51.e-41.e-41.e-41.e-41.e-51.e-5
361 3647.e-67.e-67.e-67.e-67.e-67.e-61.e-41.e-41.e-41.e-47.e-67.e-6
END MON-GRND-CONC

```

END PERLND

IMPLND

```

ACTIVITY
*** <ILS > Active Sections
*** x - x ATMP SNOW IWAT SLD IWG IQAL
91 294 1 0 1 1 1 1
END ACTIVITY

```

```

PRINT-INFO
*** <ILS > ***** Print-flags ***** PIVL PYR
*** x - x ATMP SNOW IWAT SLD IWG IQAL *****
91 294 5 0 5 5 5 5 1 9
END PRINT-INFO

```

```

BINARY-INFO
*** <ILS > **** Binary-Output-flags **** PIVL PYR
*** x - x ATMP SNOW IWAT SLD IWG IQAL *****
91 294 4 0 4 5 5 5 1 9
END BINARY-INFO

```

```

GEN-INFO
*** Name Unit-systems Printer BinaryOut
*** <ILS > t-series Engr Metr Engr Metr
*** x - x in out
*** in out Engr Metr
91 LD RESIDENTIAL EIA 1 1 63 0 91 0
92 HD RESIDENTIAL EIA 1 1 63 0 91 0
93 COMMERCIAL/INDUSTR 1 1 63 0 91 0
94 ROAD EIA 1 1 63 0 91 0
291 LD RESIDENTIAL EIA 1 1 63 0 91 0
292 HD RESIDENTIAL EIA 1 1 63 0 91 0
293 COMMERCIAL/INDUSTR 1 1 63 0 91 0
294 ROAD EIA 1 1 63 0 91 0
END GEN-INFO

```

```

ATEMP-DAT
*** <ILS > ELDAT AIRTEMP
*** x - x (ft) (deg F)
91 414.6 45.
92 135.2 45.
93 56.9 45.
94 130.7 45.
291 414.6 45.
292 135.2 45.
293 56.9 45.
294 130.7 45.
END ATEMP-DAT

```

```

IWAT-PARM1
*** <ILS > Flags
*** x - x CSNO RTOP VRS VNN RTLI
91 294 0 0 0 0 0
END IWAT-PARM1

```

```

IWAT-PARM2
*** <ILS > L SUR S L SUR N SUR R E T S C
*** x - x (ft) (in)
91 94 150. 0.021 0.1 0.1
291 294 150. 0.001 0.1 0.1
END IWAT-PARM2

```

IWAT-PARM3

```

*** <ILS >   PETMAX   PETMIN
*** x - x   (deg F)   (deg F)
    91 294   40.     35.
END IWAT-PARM3

IWAT-STATE1
*** <ILS > IWATER state variables (inches)
*** x - x   RETS     SURS
    91 294   0.     0.
END IWAT-STATE1

SLD-PARM1
*** <ILS >   Flags
*** x - x VASD VRSD SDOP
    91 294   0     0     1
END SLD-PARM1

SLD-PARM2
*** <ILS >
*** x - x
    91      0.01     2.     0.002     0.02
    92 93     0.01     2.     0.003     0.02
    94      0.01     2.     0.002     0.02
    291     0.01     2.     0.002     0.025
    292 293   0.01     2.     0.003     0.025
    294     0.01     2.     0.002     0.025
END SLD-PARM2

SLD-STOR
*** <ILS > Solids storage (tons/acre)
*** x - x
    91      0.01
    92 93     0.012
    94      0.008
    291     0.01
    292 293   0.012
    294     0.008
END SLD-STOR

IWT-PARM1
*** <ILS > Flags for section IWTGAS
*** x - x WTFV CSNO
    91 294   1     0
END IWT-PARM1

IWT-PARM2
*** <ILS > Second group of IWTGAS parms
*** x - x
    91      444.6     45.     0.7
    92      165.2     45.     0.7
    93      86.9      45.     0.7
    94      160.7     45.     0.7
    291     444.6     45.     0.7
    292     165.2     45.     0.7
    293     86.9      45.     0.7
    294     160.7     45.     0.7
END IWT-PARM2

MON-AWTF
*** <ILS > Value of AWTF at start of each month (deg F)
*** x - x JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
    91 94 40. 40. 43. 46. 50. 53. 56. 56. 53. 50. 46. 43.
    291 294 41. 41. 44. 47. 51. 54. 57. 57. 54. 51. 47. 44.
END MON-AWTF

MON-BWTF
*** <ILS > Value of BWTF at start of each month (deg F/F)
*** x - x JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
    91 294 0.65 0.65 0.66 0.67 0.68 0.69 0.7 0.7 0.69 0.68 0.67 0.66
END MON-BWTF

NQUALS
*** <ILS >
*** x - xNQUAL

```

```

91 294 9
END NQUALS

IQL-AD-FLAGS
***
*** Atmospheric Deposition Flags
*** < ILS> QUAL1 QUAL2 QUAL3 QUAL4 QUAL5 QUAL6 QUAL7 QUAL8 QUAL9 QUAL10
*** x - x <F><C> <F><C> <F><C> <F><C> <F><C> <F><C> <F><C> <F><C> <F><C> <F><C>
91 294 0 -1 0 -1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
END IQL-AD-FLAGS

QUAL-PROPS
*** <ILS > Identifiers and Flags
*** x - x QUALID QTID QSD VPFW QSO VQO
91 294NO2+NO3 LBS 0 0 2 0
END QUAL-PROPS

QUAL-INPUT
*** Storage on surface and nonseasonal parameters
*** SQO POTFW ACQOP SQOLIM WSQOP
*** <ILS > qty/ac qty/ton qty/ qty/ ac.day
*** x - x
91 0.06 0. 0.0003 0.0036 0.5
92 0.09 0. 0.0006 0.0072 0.5
93 0.2 0. 0.0012 0.0144 0.5
94 0.09 0. 0.0006 0.0072 0.5
291 0.06 0. 0.0003 0.0036 0.5
292 0.09 0. 0.0006 0.0072 0.5
293 0.2 0. 0.0012 0.0144 0.5
294 0.09 0. 0.0006 0.0072 0.5
END QUAL-INPUT

QUAL-PROPS
*** <ILS > Identifiers and Flags
*** x - x QUALID QTID QSD VPFW QSO VQO
91 294NH3 LBS 0 0 2 0
END QUAL-PROPS

QUAL-INPUT
*** Storage on surface and nonseasonal parameters
*** SQO POTFW ACQOP SQOLIM WSQOP
*** <ILS > qty/ac qty/ton qty/ qty/ ac.day
*** x - x
91 0.003 0. 0.0014 0.0034 0.5
92 0.005 0. 0.002 0.0048 0.5
93 0.009 0. 0.0038 0.0092 0.5
94 0.004 0. 0.0014 0.0032 0.5
291 0.003 0. 0.0014 0.0034 0.5
292 0.005 0. 0.002 0.0048 0.5
293 0.009 0. 0.0038 0.0092 0.5
294 0.004 0. 0.0014 0.0032 0.5
END QUAL-INPUT

QUAL-PROPS
*** <ILS > Identifiers and Flags
*** x - x QUALID QTID QSD VPFW QSO VQO
91 294PO4 LBS 1 0 2 0
END QUAL-PROPS

QUAL-INPUT
*** Storage on surface and nonseasonal parameters
*** SQO POTFW ACQOP SQOLIM WSQOP
*** <ILS > qty/ac qty/ton qty/ qty/ ac.day
*** x - x
91 0.003 0.2 0.0005 0.004 0.5
92 0.006 0.2 0.001 0.006 0.5
93 0.009 0.2 0.0015 0.01 0.5
94 0.006 0.2 0.001 0.006 0.5
291 0.003 0.2 0.0005 0.004 0.5
292 0.006 0.2 0.001 0.006 0.5
293 0.009 0.2 0.0015 0.01 0.5
294 0.006 0.2 0.001 0.006 0.5
END QUAL-INPUT

QUAL-PROPS
*** <ILS > Identifiers and Flags
*** x - x QUALID QTID QSD VPFW QSO VQO

```

```

91 294BOD/Organics      LBS      0      0      2      0
END QUAL-PROPS

QUAL-INPUT
***      Storage on surface and nonseasonal parameters
***      SQO  POTFW  ACQOP  SQOLIM  WSQOP
*** <ILS > qty/ac qty/ton  qty/  qty/ac  in/hr
*** x - x      ac.day
91 294      1.      0.      0.066      1.8      0.5
END QUAL-INPUT

QUAL-PROPS
*** <ILS >  Identifiers and Flags
*** x - x      QUALID  QTID  QSD  VPFW  QSO  VQO
91 294Alkalinity      LBS      0      0      2      0
END QUAL-PROPS

QUAL-INPUT
***      Storage on surface and nonseasonal parameters
***      SQO  POTFW  ACQOP  SQOLIM  WSQOP
*** <ILS > qty/ac qty/ton  qty/  qty/ac  in/hr
*** x - x      ac.day
91      2.03      0.0.0000220.000092      0.5
92      2.03      0.0.0000230.000095      0.5
93      2.03      0.0.0000240.000092      0.5
94      2.03      0.0.0000210.000096      0.5
291     2.03      0.0.0000220.000092      0.5
292     2.03      0.0.0000230.000095      0.5
293     2.03      0.0.0000240.000092      0.5
294     2.03      0.0.0000210.000096      0.5
END QUAL-INPUT

QUAL-PROPS
*** <ILS >  Identifiers and Flags
*** x - x      QUALID  QTID  QSD  VPFW  QSO  VQO
91 294Silica          LBS      0      0      2      0
END QUAL-PROPS

QUAL-INPUT
***      Storage on surface and nonseasonal parameters
***      SQO  POTFW  ACQOP  SQOLIM  WSQOP
*** <ILS > qty/ac qty/ton  qty/  qty/ac  in/hr
*** x - x      ac.day
91 294 0.003      0.      0.003      0.024      0.5
END QUAL-INPUT

QUAL-PROPS
*** <ILS >  Identifiers and Flags
*** x - x      QUALID  QTID  QSD  VPFW  QSO  VQO
91 294E-Coli          10^9      0      0      2      0
END QUAL-PROPS

QUAL-INPUT
***      Storage on surface and nonseasonal parameters
***      SQO  POTFW  ACQOP  SQOLIM  WSQOP
*** <ILS > qty/ac qty/ton  qty/  qty/ac  in/hr
*** x - x      ac.day
91      0.2      0.      0.014      0.09      0.5
92      0.3      0.      0.024      0.14      0.5
93      0.4      0.      0.03      0.18      0.5
94      0.1      0.      0.01      0.05      0.5
291     0.2      0.      0.014      0.09      0.5
292     0.3      0.      0.024      0.14      0.5
293     0.4      0.      0.03      0.18      0.5
294     0.1      0.      0.01      0.05      0.5
END QUAL-INPUT

QUAL-PROPS
*** <ILS >  Identifiers and Flags
*** x - x      QUALID  QTID  QSD  VPFW  QSO  VQO
91 294COPPER          LBS      1      0      0      0
END QUAL-PROPS

QUAL-INPUT
***      Storage on surface and nonseasonal parameters
***      SQO  POTFW  ACQOP  SQOLIM  WSQOP

```

```

*** <ILS > qty/ac qty/ton qty/ qty/ac in/hr
*** x - x ac.day
91 93 0. 0.15 0. 1.e-6 1.64
94 0. 0.195 0. 1.e-6 1.64
291 293 0. 0.15 0. 1.e-6 1.64
294 0. 0.195 0. 1.e-6 1.64
END QUAL-INPUB

```

```

QUAL-PROPS
*** <ILS > Identifiers and Flags
*** x - x QUALID QTID QSD VPFW QSO VQO
91 294FecColi 10^9 0 0 2 0
END QUAL-PROPS

```

```

QUAL-INPUB
*** Storage on surface and nonseasonal parameters
*** SQO POTFW ACQOP SQOLIM WSQOP
*** <ILS > qty/ac qty/ton qty/ qty/ac in/hr
*** x - x ac.day
91 0.2 0. 0.035 0.225 0.5
92 0.3 0. 0.06 0.35 0.5
93 0.4 0. 0.075 0.45 0.5
94 0.1 0. 0.025 0.125 0.5
291 0.2 0. 0.035 0.225 0.5
292 0.3 0. 0.06 0.35 0.5
293 0.4 0. 0.075 0.45 0.5
294 0.1 0. 0.025 0.125 0.5
END QUAL-INPUB

```

END IMPLND

```

RCHRES
ACTIVITY
*** RCHRES Active sections
*** x - x HYFG ADFG CNFG HTFG SDFG GQFG OXFG NUGF PKFG PHFG
5 520 1 1 1 1 1 1 1 1 1 1 1
END ACTIVITY

```

```

PRINT-INFO
*** RCHRES Printout level flags
*** x - x HYDR ADCA CONS HEAT SED GQL OXRX NUTR PLNK PHCB PIVL PYR
5 520 5 5 5 5 5 5 5 5 5 5 1 9
END PRINT-INFO

```

```

BINARY-INFO
*** RCHRES Binary Output level flags
*** x - x HYDR ADCA CONS HEAT SED GQL OXRX NUTR PLNK PHCB PIVL PYR
5 520 4 4 4 4 4 4 4 4 4 4 1 9
END BINARY-INFO

```

```

GEN-INFO
*** Name Nexits Unit Systems Printer
*** RCHRES t-series Engr Metr LKFG
*** x - x in out
in out ***
5 MC4-SPLITTER 2 1 1 62 0 0 91 0
10 MC4-UPPER MILL POND 1 1 1 62 0 1 91 0
20 MC3 1 1 1 62 0 0 91 0
30 MC6 1 1 1 62 0 0 91 0
40 MC7 lower pond(gage 1 1 1 62 0 0 91 0
50 MC8 1 1 1 62 0 0 91 0
60 MC9 1 1 1 62 0 0 91 0
70 MC15 1 1 1 62 0 0 91 0
75 routing 1 1 1 62 0 0 91 0
80 MC12 1 1 1 62 0 0 91 0
85 MILL CREEK DIVERSION 2 1 1 62 0 0 91 0
90 MC10 1 1 1 62 0 0 91 0
100 MC13 1 1 1 62 0 0 91 0
110 MC11 1 1 1 62 0 1 91 0
115 boeing ditch 1 1 1 62 0 0 91 0
120 MC14 1 1 1 62 0 0 91 0
130 MC17 1 1 1 62 0 0 91 0
140 MC16 1 1 1 62 0 0 91 0
150 MC2 1 1 1 62 0 0 91 0
160 MC1 1 1 1 62 0 0 91 0
170 GC10 1 1 1 62 0 0 91 0

```


Black/Springbrook UCI File

180	0. 180.	0.88	35.	0.	0.5	0.01
190	0. 190.	0.7	25.	0.	0.5	0.01
200	0. 200.	0.69	70.	0.	0.5	0.01
210	0. 210.	0.69	100.	0.	0.5	0.01
220	0. 220.	0.69	100.	0.	0.5	0.01
230	0. 230.	0.166	35.	0.	0.5	0.01
240	0. 240.	0.455	5.	0.	0.5	0.01
250	0. 250.	0.417	5.	0.	0.5	0.01
260	0. 260.	3.	20.	0.	0.5	0.01
270	0. 270.	0.55	60.	0.	0.5	0.01
280	0. 280.	0.38	4.	0.	0.5	0.01
290	0. 290.	0.3	3.	0.	0.5	0.01
310	0. 310.	0.73	8.	0.	0.5	0.01
320	0. 320.	0.45	0.01	0.	0.5	0.01
325	0. 325.	1.2	12.	0.	0.5	0.01
330	0. 330.	0.2	2.	0.	0.5	0.01
340	0. 340.	0.25	3.	0.	0.5	0.01
350	0. 350.	0.76	0.01	0.	0.5	0.01
360	0. 360.	0.5	60.	0.	0.5	0.01
370	0. 370.	0.2	54.	0.	0.5	0.01
380	0. 380.	1.4	170.	0.	0.5	0.01
390	0. 390.	0.61	19.	0.	0.5	0.01
400	0. 400.	0.2	2.	0.	0.5	0.01
410	0. 410.	0.4	4.	0.	0.5	0.01
420	0. 420.	0.44	5.	0.	0.5	0.01
430	0. 430.	0.18	2.	0.	0.5	0.01
440	0. 440.	0.53	6.	0.	0.5	0.01
460	0. 460.	0.1	0.01	0.	0.5	0.01
470	0. 470.	0.5	5.	0.	0.5	0.01
480	0. 480.	0.44	10.	0.	0.5	0.01
490	0. 490.	0.79	7.	0.	0.5	0.01
500	0. 500.	0.6	6.	0.	0.5	0.01
510	0. 510.	0.9	9.	0.	0.5	0.01
520	0. 520.	0.45	5.	0.	0.5	0.01

END HYDR-PARM2

HYDR-INIT

*** Initial conditions for HYDR section

***RC	HRES	VOL	CAT	Initial value	COLIND	initial value of	OUTDGT					
*** x	- x	ac-ft		for each possible	exit	for each possible	exit,ft3					
		*** ac-ft		for each possible	exit	for each possible	exit					
		<-----><----->		<---><---><---><---><--->	***	<---><---><---><---><--->						
5		0.	4.	5.	4.	4.	4.	0.	0.	0.	0.	0.
10		1.05	4.	4.	4.	4.	4.	0.	0.	0.	0.	0.
20		0.	4.	4.	4.	4.	4.	0.	0.	0.	0.	0.
30		0.01	4.	4.	4.	4.	4.	0.	0.	0.	0.	0.
40		0.28	4.	4.	4.	4.	4.	0.	0.	0.	0.	0.
50		0.	4.	4.	4.	4.	4.	0.	0.	0.	0.	0.
60		0.3	4.	4.	4.	4.	4.	0.	0.	0.	0.	0.
70		1.3	4.	4.	4.	4.	4.	0.	0.	0.	0.	0.
75		1.1	4.	4.	4.	4.	4.	0.	0.	0.	0.	0.
80		0.63	4.	4.	4.	4.	4.	0.	0.	0.	0.	0.
85		0.	4.	5.	4.	4.	4.	0.	0.	0.	0.	0.
90		0.33	4.	4.	4.	4.	4.	0.	0.	0.	0.	0.
100		0.52	4.	4.	4.	4.	4.	0.	0.	0.	0.	0.
110		13.	4.	4.	4.	4.	4.	0.	0.	0.	0.	0.
115		2.9	4.	4.	4.	4.	4.	0.	0.	0.	0.	0.
120		0.15	4.	4.	4.	4.	4.	0.	0.	0.	0.	0.
130		0.22	4.	4.	4.	4.	4.	0.	0.	0.	0.	0.
140		0.07	4.	4.	4.	4.	4.	0.	0.	0.	0.	0.
150		1.43	4.	4.	4.	4.	4.	0.	0.	0.	0.	0.
160		1.7	4.	4.	4.	4.	4.	0.	0.	0.	0.	0.
170	180	0.01	4.	4.	4.	4.	4.	0.	0.	0.	0.	0.
190	210	0.02	4.	4.	4.	4.	4.	0.	0.	0.	0.	0.
220		0.1	4.	4.	4.	4.	4.	0.	0.	0.	0.	0.
230		0.01	4.	4.	4.	4.	4.	0.	0.	0.	0.	0.
240		0.09	4.	4.	4.	4.	4.	0.	0.	0.	0.	0.
250		0.02	4.	4.	4.	4.	4.	0.	0.	0.	0.	0.
260		0.22	4.	4.	4.	4.	4.	0.	0.	0.	0.	0.
270		5.5	4.	4.	4.	4.	4.	0.	0.	0.	0.	0.
280		1.4	4.	4.	4.	4.	4.	0.	0.	0.	0.	0.
290		0.02	4.	4.	4.	4.	4.	0.	0.	0.	0.	0.
310		1.9	4.	4.	4.	4.	4.	0.	0.	0.	0.	0.
320		4.	4.	4.	4.	4.	4.	0.	0.	0.	0.	0.
325		0.04	4.	4.	4.	4.	4.	0.	0.	0.	0.	0.
330		0.03	4.	4.	4.	4.	4.	0.	0.	0.	0.	0.

Black/Springbrook UCI File

```

340      0.65      4.  4.  4.  4.  4.      0.  0.  0.  0.  0.
350     17.8      4.  4.  4.  4.  4.      0.  0.  0.  0.  0.
360     78.4      4.  4.  4.  4.  4.      0.  0.  0.  0.  0.
370      0.01      4.  5.  4.  4.  4.      0.  0.  0.  0.  0.
380       3.5      4.  4.  4.  4.  4.      0.  0.  0.  0.  0.
390       0.       4.  4.  4.  4.  4.      0.  0.  0.  0.  0.
400     0.72      4.  4.  4.  4.  4.      0.  0.  0.  0.  0.
410     0.01      4.  4.  4.  4.  4.      0.  0.  0.  0.  0.
420       0.       4.  4.  4.  4.  4.      0.  0.  0.  0.  0.
430     1.58      4.  4.  4.  4.  4.      0.  0.  0.  0.  0.
440     0.76      4.  4.  4.  4.  4.      0.  0.  0.  0.  0.
460     0.16      4.  4.  4.  4.  4.      0.  0.  0.  0.  0.
470       3.5      4.  4.  4.  4.  4.      0.  0.  0.  0.  0.
480       0.       4.  4.  4.  4.  4.      0.  0.  0.  0.  0.
490  500     0.02      4.  4.  4.  4.  4.      0.  0.  0.  0.  0.
510       4.9      4.  4.  4.  4.  4.      0.  0.  0.  0.  0.
520       0.       4.  4.  4.  4.  4.      0.  0.  0.  0.  0.

```

END HYDR-INIT

NCONS

```

*** RCHRES
*** x - xNCONS
5 520 1
END NCONS

```

CONS-DATA

```

*** RCHRES
*** x - x      Substance-id      Conc      ID      CONV      QTYID
5 520 Alkalinity as CaCO3      20. mg/l      16019.  LBS
END CONS-DATA

```

HT-BED-FLAGS

```

*** RCHRES Bed Heat Conductance Flags
*** x - x BDFG TGFG TSTP
5 520 2 3 55
END HT-BED-FLAGS

```

HEAT-PARM

```

*** RCHRES      ELEV      ELDAT      CFSAX      KATRAD      KCOND      KEVAP
*** x - x      (ft)      (ft)
5      380.5      350.5      0.45      9.      6.12      2.5
10     344.      314.      0.45      9.      6.12      2.5
20     442.5      412.5      0.45      9.      6.12      2.5
30     395.5      365.5      0.45      9.      6.12      2.5
40     324.5      294.5      0.45      9.      6.12      2.5
50     336.5      306.5      0.45      9.      6.12      2.5
60     177.      147.      0.5      9.      6.12      2.5
70     121.3      91.3      0.55      9.      6.12      2.5
75     45.8      15.8      0.55      9.      6.12      2.5
80     37.8      7.8      0.6      9.      6.12      2.5
85     31.      1.      0.7      9.      6.12      2.5
90     35.8      5.8      0.6      9.      6.12      2.5
100    31.      1.      0.7      9.      6.12      2.5
110    29.      -1.      0.75      9.      6.12      2.5
115    28.5      -1.5      0.7      9.      6.12      2.5
120    31.3      1.3      0.7      9.      6.12      2.5
130    30.5      0.5      0.7      9.      6.12      2.5
140    28.8      -1.3      0.7      9.      6.12      2.5
150    28.8      -1.3      0.75      9.      6.12      2.5
160    27.5      -2.5      0.75      9.      6.12      2.5
170    461.      431.      0.5      9.      6.12      2.5
180    436.5      406.5      0.5      9.      6.12      2.5
190    434.5      404.5      0.5      9.      6.12      2.5
200    342.5      312.5      0.6      9.      6.12      2.5
210    377.      347.      0.6      9.      6.12      2.5
220    219.5      189.5      0.6      9.      6.12      2.5
230    329.5      299.5      0.65      9.      6.12      2.5
240    113.      83.      0.7      9.      6.12      2.5
250    254.      224.      0.5      9.      6.12      2.5
260    35.      5.      0.75      9.      6.12      2.5
270    170.5      140.5      0.75      9.      6.12      2.5
280  290     26.5      -3.5      0.8      9.      6.12      2.5
310    25.8      -4.3      0.8      9.      6.12      2.5
320    25.5      -4.5      0.8      9.      6.12      2.5
325    25.3      -4.8      0.8      9.      6.12      2.5
330    25.5      -4.5      0.8      9.      6.12      2.5

```

340	24.5	-5.5	0.8	9.	6.12	2.5
350	449.	419.	0.1	9.	6.12	2.5
360	274.5	244.5	0.05	9.	6.12	2.5
370	64.	34.	0.5	9.	6.12	2.5
380	125.	95.	0.65	9.	6.12	2.5
390	50.	20.	0.65	9.	6.12	2.5
400	25.5	-4.5	0.75	9.	6.12	2.5
410	24.5	-5.5	0.75	9.	6.12	2.5
420	25.3	-4.8	0.75	9.	6.12	2.5
430	24.8	-5.3	0.75	9.	6.12	2.5
440	26.3	-3.8	0.75	9.	6.12	2.5
460	24.5	-5.5	0.75	9.	6.12	2.5
470	24.3	-5.8	0.75	9.	6.12	2.5
480	39.5	9.5	0.85	9.	6.12	2.5
490	29.5	-0.5	0.85	9.	6.12	2.5
500	25.	-5.	0.85	9.	6.12	2.5
510	23.5	-6.5	0.95	9.	6.12	2.5
520	22.5	-7.5	0.95	9.	6.12	2.5

END HEAT-PARM

HT-BED-PARM

*** Bed Heat Conduction Parameters for Single and Two-layer Methods
 *** RCHRES MUDDEP TGRND KMUD KGRND
 *** x - x (ft) (deg F) (kcal/m2/C/hr)
 5 520 2. 59. 80. 1.42
 END HT-BED-PARM

MON-HT-TGRND

*** RCHRES Monthly values of ground temperatures (deg F)
 *** x - x TG1 TG2 TG3 TG4 TG5 TG6 TG7 TG8 TG9 TG10 TG11 TG12
 5 115 45. 45. 47. 49. 51. 53. 55. 55. 53. 51. 49. 47.
 120 360 46. 46. 48. 50. 52. 54. 56. 56. 54. 52. 50. 48.
 370 520 47. 47. 49. 49. 53. 55. 57. 57. 55. 53. 51. 49.
 END MON-HT-TGRND

HEAT-INIT

*** RCHRES TW AIRTMP
 *** x - x (deg F) (deg F)
 5 520 55. 55.
 END HEAT-INIT

SANDFG

*** RCHRES
 *** x - x SANDFG
 5 520 3
 END SANDFG

SED-GENPARM

*** RCHRES BEDWID BEDWRN POR
 *** x - x (ft) (ft)
 5 520 8. 4. 0.4
 END SED-GENPARM

SAND-PM

*** RCHRES	D	W	RHO	KSAND	EXPSND
*** x - x	(in)	(in/sec)	(gm/cm3)		
5	0.005	0.02	2.5	15.	1.4
10	0.005	0.02	2.5	0.35	1.4
20	0.005	0.02	2.5	0.4	1.4
30	0.005	0.02	2.5	0.45	1.4
40	0.005	0.02	2.5	0.5	1.4
50	0.005	0.02	2.5	0.45	1.4
60	0.005	0.02	2.5	0.24	1.4
70	0.005	0.02	2.5	0.9	1.4
75	0.005	0.02	2.5	0.85	1.4
80	0.005	0.02	2.5	0.45	1.4
85	100	0.005	0.02	0.6	1.4
110		0.005	0.02	0.13	1.4
115	120	0.005	0.02	0.5	1.4
130		0.005	0.02	0.58	1.4
140		0.005	0.02	0.52	1.4
150		0.005	0.02	0.14	1.4
160		0.005	0.02	0.28	1.4
170	180	0.005	0.02	0.85	1.4
190		0.005	0.02	0.7	1.4
200		0.005	0.02	0.18	1.4

Black/Springbrook UCI File

210		0.005	0.02	2.5	0.8	1.4
220	230	0.005	0.02	2.5	0.55	1.4
240		0.005	0.02	2.5	0.14	1.4
250		0.005	0.02	2.5	0.55	1.4
260		0.005	0.02	2.5	0.5	1.4
270		0.005	0.02	2.5	0.55	1.4
280		0.005	0.02	2.5	0.25	1.4
290		0.005	0.02	2.5	0.55	1.4
310		0.005	0.02	2.5	0.17	1.4
320		0.005	0.02	2.5	0.1	1.4
325		0.005	0.02	2.5	0.52	1.4
330		0.005	0.02	2.5	0.6	1.4
340		0.005	0.02	2.5	0.2	1.4
350	360	0.005	0.02	2.5	0.13	1.4
370	380	0.005	0.02	2.5	0.55	1.4
390		0.005	0.02	2.5	0.65	1.4
400		0.005	0.02	2.5	0.6	1.4
410		0.005	0.02	2.5	0.5	1.4
420		0.005	0.02	2.5	0.35	1.4
430		0.005	0.02	2.5	0.09	1.4
440	460	0.005	0.02	2.5	0.26	1.4
470		0.005	0.02	2.5	0.3	1.4
480		0.005	0.02	2.5	0.5	1.4
490	500	0.005	0.02	2.5	0.25	1.4
510	520	0.005	0.02	2.5	0.2	1.4

END SAND-PM

SILT-CLAY-PM

*** RCHRES	D	W	RHO	TAUCD	TAUCS	M
*** x - x	(in)	(in/sec)	gm/cm3	lb/ft2	lb/ft2	lb/ft2.d
5	0.0006	0.0035	2.2	0.001	0.01	0.5
10	0.0006	0.0035	2.2	0.000003	0.00001	0.5
20	0.0006	0.0035	2.2	0.01	0.06	0.5
30	0.0006	0.0035	2.2	0.05	0.31	0.5
40	0.0006	0.0035	2.2	0.1	0.85	0.5
50	0.0006	0.0035	2.2	0.02	0.18	0.5
60	0.0006	0.0035	2.2	0.02	0.45	0.5
70	0.0006	0.0035	2.2	0.5	3.	0.5
75	0.0006	0.0035	2.2	0.03	0.2	0.5
80	0.0006	0.0035	2.2	0.01	0.095	0.5
85	0.0006	0.0035	2.2	0.001	0.08	0.5
90	0.0006	0.0035	2.2	0.0015	0.38	0.5
100	0.0006	0.0035	2.2	0.025	0.2	0.5
110	0.0006	0.0035	2.2	0.00001	1.	0.5
115	0.0006	0.0035	2.2	0.001	1.3	0.5
120	0.0006	0.0035	2.2	0.025	0.12	0.5
130	0.0006	0.0035	2.2	0.15	0.6	0.5
140	0.0006	0.0035	2.2	0.015	0.08	0.5
150	0.0006	0.0035	2.2	0.015	0.15	0.5
160	0.0006	0.0035	2.2	0.15	0.6	0.5
170	0.0006	0.0035	2.2	0.0012	0.014	0.5
180	0.0006	0.0035	2.2	0.0015	0.014	0.5
190	0.0006	0.0035	2.2	0.0018	0.017	0.5
200	0.0006	0.0035	2.2	0.02	1.35	0.5
210	0.0006	0.0035	2.2	0.02	0.2	0.5
220	0.0006	0.0035	2.2	0.042	0.4	0.5
230	0.0006	0.0035	2.2	0.15	1.5	0.5
240	0.0006	0.0035	2.2	0.02	0.14	0.5
250	0.0006	0.0035	2.2	0.01	0.09	0.5
260	0.0006	0.0035	2.2	0.13	0.38	0.5
270	0.0006	0.0035	2.2	0.45	1.8	0.5
280	0.0006	0.0035	2.2	0.16	0.6	0.5
290	0.0006	0.0035	2.2	0.01	0.12	0.5
310	0.0006	0.0035	2.2	0.09	0.46	0.5
320	0.0006	0.0035	2.2	1E-08	1.	0.5
325	0.0006	0.0035	2.2	0.0002	0.001	0.5
330	0.0006	0.0035	2.2	0.01	0.024	0.5
340	0.0006	0.0035	2.2	0.02	0.2	0.5
350	0.0006	0.0035	2.2	0.00005	1.	0.5
360	0.0006	0.0035	2.2	0.2	0.6	0.5
370	0.0006	0.0035	2.2	0.17	1.5	0.5
380	0.0006	0.0035	2.2	1.15	3.6	0.5
390	0.0006	0.0035	2.2	0.3	0.24	0.5
400	0.0006	0.0035	2.2	0.015	0.105	0.5
410	0.0006	0.0035	2.2	0.115	0.4	0.5
420	0.0006	0.0035	2.2	0.29	0.45	0.5

Black/Springbrook UCI File

430	0.0006	0.0035	2.2	0.28	0.48	0.5
440	0.0006	0.0035	2.2	0.005	0.1	0.5
460	0.0006	0.0035	2.2	0.0008	0.008	0.5
470	0.0006	0.0035	2.2	0.18	0.33	0.5
480	0.0006	0.0035	2.2	0.015	0.185	0.5
490	0.0006	0.0035	2.2	0.03	0.095	0.5
500	0.0006	0.0035	2.2	0.006	0.095	0.5
510	0.0006	0.0035	2.2	0.6	1.	0.5
520	0.0006	0.0035	2.2	0.65	1.	0.5

END SILT-CLAY-PM

SILT-CLAY-PM

*** RCHRES	D	W	RHO	TAUCD	TAUCS	M
*** x - x	(in)	(in/sec)	gm/cm3	lb/ft2	lb/ft2	lb/ft2.d
5	0.00006	0.0004	2.	0.001	0.01	0.5
10	0.00006	0.0004	2.	0.000003	0.00001	0.5
20	0.00006	0.0004	2.	0.01	0.06	0.5
30	0.00006	0.0004	2.	0.05	0.31	0.5
40	0.00006	0.0004	2.	0.1	0.85	0.5
50	0.00006	0.0004	2.	0.02	0.18	0.5
60	0.00006	0.0004	2.	0.02	0.45	0.5
70	0.00006	0.0004	2.	0.5	3.	0.5
75	0.00006	0.0004	2.	0.03	0.2	0.5
80	0.00006	0.0004	2.	0.01	0.095	0.5
85	0.00006	0.0004	2.	0.001	0.08	0.5
90	0.00006	0.0004	2.	0.0015	0.38	0.5
100	0.00006	0.0004	2.	0.025	0.2	0.5
110	0.00006	0.0004	2.	0.00001	1.	0.5
115	0.00006	0.0004	2.	0.001	1.3	0.5
120	0.00006	0.0004	2.	0.025	0.12	0.5
130	0.00006	0.0004	2.	0.15	0.6	0.5
140	0.00006	0.0004	2.	0.015	0.08	0.5
150	0.00006	0.0004	2.	0.015	0.15	0.5
160	0.00006	0.0004	2.	0.15	0.6	0.5
170	0.00006	0.0004	2.	0.0012	0.014	0.5
180	0.00006	0.0004	2.	0.0015	0.014	0.5
190	0.00006	0.0004	2.	0.0018	0.017	0.5
200	0.00006	0.0004	2.	0.02	1.35	0.5
210	0.00006	0.0004	2.	0.02	0.2	0.5
220	0.00006	0.0004	2.	0.042	0.4	0.5
230	0.00006	0.0004	2.	0.15	1.5	0.5
240	0.00006	0.0004	2.	0.02	0.14	0.5
250	0.00006	0.0004	2.	0.01	0.09	0.5
260	0.00006	0.0004	2.	0.13	0.38	0.5
270	0.00006	0.0004	2.	0.45	1.8	0.5
280	0.00006	0.0004	2.	0.16	0.6	0.5
290	0.00006	0.0004	2.	0.01	0.12	0.5
310	0.00006	0.0004	2.	0.09	0.46	0.5
320	0.00006	0.0004	2.	1E-08	1.	0.5
325	0.00006	0.0004	2.	0.0002	0.001	0.5
330	0.00006	0.0004	2.	0.01	0.024	0.5
340	0.00006	0.0004	2.	0.02	0.2	0.5
350	0.00006	0.0004	2.	0.00005	1.	0.5
360	0.00006	0.0004	2.	0.2	0.6	0.5
370	0.00006	0.0004	2.	0.17	1.5	0.5
380	0.00006	0.0004	2.	1.15	3.6	0.5
390	0.00006	0.0004	2.	0.3	0.24	0.5
400	0.00006	0.0004	2.	0.015	0.105	0.5
410	0.00006	0.0004	2.	0.115	0.4	0.5
420	0.00006	0.0004	2.	0.29	0.45	0.5
430	0.00006	0.0004	2.	0.28	0.48	0.5
440	0.00006	0.0004	2.	0.005	0.1	0.5
460	0.00006	0.0004	2.	0.0008	0.008	0.5
470	0.00006	0.0004	2.	0.18	0.33	0.5
480	0.00006	0.0004	2.	0.015	0.185	0.5
490	0.00006	0.0004	2.	0.03	0.095	0.5
500	0.00006	0.0004	2.	0.006	0.095	0.5
510	0.00006	0.0004	2.	0.7	1.	0.5
520	0.00006	0.0004	2.	0.65	1.	0.5

END SILT-CLAY-PM

SSED-INIT

*** RCHRES	Suspended sed concs (mg/l)		
*** x - x	Sand	Silt	Clay
5 520	0.	0.	0.

END SSED-INIT

```

BED-INIT
*** RCHRES      BEDDEP      Initial bed composition
*** x - x      (ft)      Sand      Silt      Clay
    5          0.          0.65      0.15      0.2
    10 60      2.          0.65      0.15      0.2
    70          0.          0.65      0.15      0.2
    75 80      2.          0.65      0.15      0.2
    85          0.          0.65      0.15      0.2
    90 160     2.          0.65      0.15      0.2
    170 220    0.          0.65      0.15      0.2
    230 280    2.          0.65      0.15      0.2
    290 310    0.          0.65      0.15      0.2
    320 325    2.          0.65      0.15      0.2
    330          0.          0.65      0.15      0.2
    340 390    2.          0.65      0.15      0.2
    400          0.          0.65      0.15      0.2
    410          2.          0.65      0.15      0.2
    420          0.          0.65      0.15      0.2
    430          2.          0.65      0.15      0.2
    440          0.          0.65      0.15      0.2
    460 470    2.          0.65      0.15      0.2
    480 500    0.          0.65      0.15      0.2
    510 520    2.          0.65      0.15      0.2
END BED-INIT

```

```

GQ-GENDATA
*** RCHRES NGQL TPGF PHFG ROFG CDFG SDFG PYFG LAT
*** x - x      deg
    5 520      4      1      1      2      2      1      2      48
END GQ-GENDATA

```

```

GQ-QALDATA
*** RCHRES      GQID      DQAL      CONCID      CONV      QTYID
*** x - x      concid
    5 520Silica      5.      mg      16019.      LBS
END GQ-QALDATA

```

```

GQ-QALFG
*** RCHRES HDRL OXID PHOT VOLT BIOD GEN SDAS
*** x - x
    5 520      0      0      0      0      0      1      0
END GQ-QALFG

```

```

GQ-GENDECAY
*** RCHRES      FSTDEC      THFST
*** x - x      (/day)
    5 520      0.0001      1.07
END GQ-GENDECAY

```

```

GQ-QALDATA
*** RCHRES      GQID      DQAL      CONCID      CONV      QTYID
*** x - x      concid
    5 520E-Coli      200.      #CFU 35310000.      10^9CFU
END GQ-QALDATA

```

```

GQ-QALFG
*** RCHRES HDRL OXID PHOT VOLT BIOD GEN SDAS
*** x - x
    5 520      0      0      0      0      0      1      0
END GQ-QALFG

```

```

GQ-GENDECAY
*** RCHRES      FSTDEC      THFST
*** x - x      (/day)
    5 520      1.      1.07
END GQ-GENDECAY

```

```

GQ-QALDATA
*** RCHRES      GQID      DQAL      CONCID      CONV      QTYID
*** x - x      concid
    5 520Copper      0.      UG      16019000.      LBS
END GQ-QALDATA

```

```

GQ-QALFG
*** RCHRES HDRL OXID PHOT VOLT BIOD GEN SDAS

```

```

*** x - x
5 520 0 0 0 0 0 0 1
END GQ-QALFG

GQ-SEDDECAY
*** RCHRES      KSUSP      THSUSP      KBED      THBED
*** x - x      /day
5 520 0.      1.07      0.      1.07
END GQ-SEDDECAY

GQ-KD
*** RCHRES      Partition coefficients (l/mg)
*** x - x ADPM(1,1) ADPM(2,1) ADPM(3,1) ADPM(4,1) ADPM(5,1) ADPM(6,1)
5 520 0.0003 0.0009 0.0009 0.0003 0.0009 0.0009
END GQ-KD

GQ-ADRATE
*** RCHRES      Adsorption/desorption rate parameters (/day)
*** x - x ADPM(1,2) ADPM(2,2) ADPM(3,2) ADPM(4,2) ADPM(5,2) ADPM(6,2)
5 520 5.      5.      5.      0.0002 0.0002 0.0002
END GQ-ADRATE

GQ-ADTHETA
*** RCHRES      Adsorption/desorption temp. correction parameters
*** x - x ADPM(1,3) ADPM(2,3) ADPM(3,3) ADPM(4,3) ADPM(5,3) ADPM(6,3)
5 520 1.07      1.07      1.07      1.07      1.07      1.07
END GQ-ADTHETA

GQ-SEDCONC
*** RCHRES      Initial concentrations on sediment (concu/mg)
*** x - x      SQAL1      SQAL2      SQAL3      SQAL4      SQAL5      SQAL6
5 90 0.      0.      0.      0.0006 0.0012 0.0012
100 160 0.      0.      0.      0.0008 0.0015 0.0015
170 250 0.      0.      0.      0.0006 0.0012 0.0012
260 290 0.      0.      0.      0.0009 0.0018 0.0018
310 340 0.      0.      0.      0.0012 0.0024 0.0024
350 360 0.      0.      0.      0.0006 0.0012 0.0012
370 390 0.      0.      0.      0.0009 0.0018 0.0018
400 520 0.      0.      0.      0.0012 0.0024 0.0024
END GQ-SEDCONC

GQ-QALDATA
*** RCHRES      GQID      DQAL      CONCID      CONV      QTYID
*** x - x      concid
5 520FecColi      200.      #CFU 35310000. 10^9CFU
END GQ-QALDATA

GQ-QALFG
*** RCHRES HDRL OXID PHOT VOLT BIOD GEN SDAS
*** x - x
5 520 0 0 0 0 0 1 0
END GQ-QALFG

GQ-GENDECAY
*** RCHRES      FSTDEC      THFST
*** x - x      (/day)
5 520 1.      1.07
END GQ-GENDECAY

BENTH-FLAG
*** RCHRES      Benthic release flag
*** x - x BENF
5 0
10 20 1
30 50 0
60 1
70 0
75 80 1
85 0
90 190 1
200 230 0
240 260 1
270 0
280 340 1
350 390 0
400 470 1

```

480 500 0
 510 520 1
 END BENTH-FLAG

SCOUR-PARMS
 *** RCHRES SCRVEL SCRMUL
 *** x - x ft/sec
 5 99. 1.
 10 0.04 1000
 20 30. 1000
 30 50 99. 1.
 60 2. 1000
 70 99. 1.
 75 0.1 1000
 80 2.5 1000
 85 99. 1.
 90 0.6 650
 100 0.7 650
 110 0.06 650
 115 0.4 650
 120 0.5 650
 130 0.475 650
 140 0.65 650
 150 1.4 650
 160 1.7 650
 170 190 6.5 650
 200 230 99. 1.
 240 6.5 650
 250 5. 650
 260 1.2 650
 270 99. 1.
 280 1.4 650
 290 2.5 650
 310 1.7 650
 320 0.02 650
 325 99. 650
 330 2.2 650
 340 99. 13
 350 390 99. 1.
 400 1.9 650
 410 0.07 650
 420 1. 650
 430 2. 650
 440 5. 650
 460 1.5 650
 470 1.6 650
 480 500 99. 1.
 510 4. 650
 520 1.7 650
 END SCOUR-PARMS

OX-FLAGS
 *** RCHRES Oxygen flags
 *** x - x REAM
 5 520 3
 END OX-FLAGS

OX-GENPARM
 *** RCHRES KBOD20 TCBOB KODSET SUPSAT
 *** x - x /hr ft/hr
 5 520 0.006 1.047 0.01 1.3
 END OX-GENPARM

OX-BENPARM
 *** RCHRES BENOD TCBOB EXPOD BRBOD (1) BRBOD (2) EXPREL
 *** x - x mg/m2.hr mg/m2.hr mg/m2.hr
 5 520 350 1.074 1.22 0.1 0.01 2.82
 END OX-BENPARM

OX-TCGINV
 *** RCHRES Temperature correction coef
 *** x - x TCGINV
 5 520 1.07
 END OX-TCGINV

OX-REAPARM

```

*** RCHRES      TCGINV      REAK      EXPRED      EXPREV
*** x - x
    5  50      1.07      0.3      -1.673      0.969
    60 160      1.07      0.15     -1.673      0.969
    170 250     1.07      0.3      -1.673      0.969
    260 340     1.07      0.1      -1.673      0.969
    350 390     1.07      0.25     -1.673      0.969
    400 470     1.07      0.1      -1.673      0.969
    480 520     1.07      0.4      -1.673      0.969
END OX-REAPARM

```

```

OX-INIT
*** RCHRES      DOX      BOD      SATDO
*** x - x      mg/l      mg/l      mg/l
    5  520     10.      1.      14.
END OX-INIT

```

```

NUT-FLAGS
*** RCHRES      Nutrient flags
*** x - x      NH3 NO2 PO4 AMV DEN ADNH ADPO PHFL
    5  520     1  0  1  0  1  0  1  2
END NUT-FLAGS

```

```

CONV-VAL1
*** RCHRES      CVBO      CVBPC      CVBPN      BPCNTC
*** x - x      mg/mg      mols/mol      mols/mol
    5  520     1.63     106.      16.      49.
END CONV-VAL1

```

```

NUT-BENPARM
*** RCHRES      BRNIT (1) BRNIT (2) BRPO4 (1) BRPO4 (2) ANAER
*** x - x      mg/m2.hr mg/m2.hr mg/m2.hr mg/m2.hr mg/l
    5          0.      0.      0.      0.      1.
    10 20      0.35     0.6     0.05     0.07     1.
    30 50      0.      0.      0.      0.      1.
    60          0.35     0.6     0.05     0.07     1.
    70          0.      0.      0.      0.      1.
    75 80      0.35     0.6     0.05     0.07     1.
    85          0.      0.      0.      0.      1.
    90 190     0.35     0.6     0.05     0.07     1.
    200 230     0.      0.      0.      0.      1.
    240 260     0.35     0.6     0.05     0.07     1.
    270          0.      0.      0.      0.      1.
    280 340     0.35     0.6     0.05     0.07     1.
    350 380     0.      0.      0.      0.      1.
    390 470     0.35     0.6     0.05     0.07     1.
    480 500     0.      0.      0.      0.      1.
    510 520     0.35     0.6     0.05     0.07     1.
END NUT-BENPARM

```

```

NUT-NITDENIT
*** RCHRES      KTAM20      KNO220      TCNIT      KNO320      TCDEN      DENOXT
*** x - x      /hr      /hr      /hr      /hr      mg/l
    5  520     0.001     0.001     1.07     0.001     1.04     1.
END NUT-NITDENIT

```

```

NUT-BEDCONC
*** RCHRES      Bed concentrations of NH4 & PO4 (mg/kg)
*** x - x      NH4-sand NH4-silt NH4-clay PO4-sand PO4-silt PO4-clay
    5  520     0.0001     0.0002     0.0003     0.00005     0.0003     0.0004
END NUT-BEDCONC

```

```

NUT-ADSPARM
*** RCHRES      Partition coefficients for NH4 AND PO4 (ml/g)
*** x - x      NH4-sand NH4-silt NH4-clay PO4-sand PO4-silt PO4-clay
    5  520     0.0001     0.0001     0.0001     10.      10.      10.
END NUT-ADSPARM

```

```

NUT-DINIT
*** RCHRES      NO3      TAM      NO2      PO4
*** x - x      mg/l      mg/l      mg/l      mg/l
    5  520     1.      0.05     0.      0.03     7.
END NUT-DINIT

```

```

NUT-ADSINIT
*** RCHRES      Initial suspended NH4 and PO4 concentrations (mg/kg)

```



```
*** x - x NH4-sand NH4-silt NH4-clay PO4-sand PO4-silt PO4-clay
5 520 0. 0. 0. 0. 0.
END NUT-ADSINIT
```

```
PLNK-FLAGS
*** RCHRES Plankton flags
*** x - x PHYF ZOOF BALF SDLT AMRF DECF NSFG ZFOO BNP
5 0 0 1 0 0 0 1 0 0
10 20 1 0 1 0 0 1 1 0 0
30 50 0 0 1 0 0 1 1 0 0
60 1 0 1 0 0 1 1 0 0
70 0 0 1 0 0 1 1 0 0
75 190 1 0 1 0 0 1 1 0 0
200 230 0 0 1 0 0 1 1 0 0
240 260 1 0 1 0 0 1 1 0 0
270 0 0 1 0 0 1 1 0 0
280 340 1 0 1 0 0 1 1 0 0
350 380 0 0 1 0 0 1 1 0 0
390 470 1 0 1 0 0 1 1 0 0
480 500 0 0 1 0 0 1 1 0 0
510 520 1 0 1 0 0 1 1 0 0
END PLNK-FLAGS
```

```
PLNK-PARM1
***RC HRES RATCLP NONREF LITSED ALNPR EXTB MALGR PARADF
*** x - x 1/mg.ft /ft /hr
5 340 0.68 0.6 0. 0.4 0.3 0.05 1.
350 370 0.68 0.6 0. 0.4 0.3 0.07 1.
380 520 0.68 0.6 0. 0.4 0.3 0.05 1.
END PLNK-PARM1
```

```
PLNK-PARM2
***RC HRES CMLLT CMMN CMMNP CMMPT TALGRH TALGRL TALGRM
*** x - x ly/min mg/l mg/l mg/l deg F deg F deg F
5 50 0.01 0.025 0.0001 0.005 95. 45. 65.
60 160 0.01 0.025 0.0001 0.005 95. 45. 60.
170 250 0.01 0.025 0.0001 0.005 95. 45. 65.
260 340 0.01 0.025 0.0001 0.005 95. 45. 60.
350 370 0.01 0.025 0.0001 0.005 95. 45. 65.
380 520 0.01 0.025 0.0001 0.005 95. 45. 60.
END PLNK-PARM2
```

```
PLNK-PARM3
*** RCHRES ALR20 ALDH ALDL OXALD NALDH PALDH
*** x - x /hr /hr /hr /hr mg/l mg/l
5 520 0.005 0.001 0.001 0.03 0.01 0.002
END PLNK-PARM3
```

```
PHYTO-PARM
*** RCHRES SEED MXSTAY OREF CLALDH PHYSET REFSET
*** x - x mg/l mg/l ft3/s ug/l ft/hr ft/hr
5 520 1. 1.5 400. 200. 0.01 0.010
END PHYTO-PARM
```

```
BENAL-PARM
***RC HRES MBAL CFBALR CFBALG MINBAL CAMPR FRAVL NMAXFX
*** x - x mg/m2 mg/m2 mg/m2 mg/l mg/l mg/l
5 520 2000. 0.4 0.8 0.0001 0.001 0. 20.
END BENAL-PARM
```

```
PLNK-INIT
*** RCHRES PHYTO ZOO BENAL ORN ORP ORC
*** x - x mg/l org/l mg/m2 mg/l mg/l mg/l
5 520 0.5 0.03 500. 0.06 0.02 2.
END PLNK-INIT
```

```
PH-PARM1
*** RCHRES Flags for pH simulation
*** x - x PHCN ALKC
5 520 50 1
END PH-PARM1
```

```
PH-PARM2
*** RCHRES CFCINV BRCO2 (1) BRCO2 (2)
*** x - x mg/m2.hr mg/m2.hr
5 520 0.913 10. 10.
```

```

END PH-PARM2

PH-INIT
*** RCHRES      TIC      CO2      PH
*** x - x      mg/l     mg/l     7.
  5 520        20.     10.
END PH-INIT

END RCHRES

FTABLES

FTABLE      5
rows cols
  6 5
  depth      area      volume  outflow1  outflow2 ***
  0          0          0       0.         0.
  1          0.1        0.001   12.5        0.
  2          0.2        0.002   12.5        0.
  3          0.3        0.003   12.5        0.
  4          0.4        0.004   12.5        500.
  5          0.5        0.005   12.5        500.
END FTABLE 5

FTABLE      10
rows cols
  15 4
  depth      area      volume  outflow1 ***
  0          0          0       0.
  29.2       4          0       0.
  30         5.5        4.4     2.15
  31         6.2        10.25   5.56
  32         7          16.85   7.49
  33         7.7        24.2    8.98
  34         8.2        32.15   10.28
  35         8.7        40.5    11.4
  36         8.7        49.2    12.5
  37         8.7        57.9    13.5
  38         8.7        66.6    14.4
  39         8.7        75.3    21.4
  40         8.7        84       35.1
  40.5       8.7        88.35   130.6
  45         8.7        130     150.
END FTABLE 10

FTABLE      20
rows cols
  9 4
  depth      area      volume  outflow1 ***
  0          0          0       0.
  0.2        0.2        0.1     20.
  0.4        0.4        0.2     40.
  0.6        0.6        0.3     80.
  0.8        0.8        0.4     160.
  1          1          0.8     320.
  1.2        1.2        1.2     700.
  1.4        1.4        1.6     800.
  1.6        1.6        2       850.
END FTABLE 20

FTABLE      30
rows cols
  9 4
  depth      area      volume  outflow1 ***
  0          0          0       0.
  0.2        0.2        0.1     20.
  0.4        0.4        0.2     40.
  0.6        0.6        0.3     80.
  0.8        0.8        0.4     160.
  1          1          0.8     320.
  1.2        1.2        1.6     700.
  1.4        1.4        2       800.
  1.6        1.6        2.4     850.
END FTABLE 30

FTABLE      40

```

```

rows cols                                     ***
 12    4
  depth    area    volume    outflow1 ***
    0        0        0        0.
    0.2    0.586    0.076    0.35
    0.3    0.712    0.141    0.86
    0.6    1.055    0.406    3.81
    1.5    1.257    1.446    26.04
    2      1.565    2.152    43.45
    2.2    1.641    2.472    52.75
    2.4    1.875    2.824    60.85
    3.2    2.493    4.571    113.58
    3.5    2.725    5.354    139.72
    4      3        6.5     200.
    6      5       10.5    400.
END FTABLE 40

```

```

FTABLE    50
rows cols                                     ***
 9    4
  depth    area    volume    outflow1 ***
    0        0        0        0.
    0.2    0.2      0.1     20.
    0.4    0.4      0.2     40.
    0.6    0.6      0.3     80.
    0.8    0.8      0.5    160.
    1      1        1     320.
    1.2    1.2      1.7    700.
    1.4    1.4      2     800.
    1.6    1.6      2.4    850.
END FTABLE 50

```

```

FTABLE    60
rows cols                                     ***
 6    4
  depth    area    volume    outflow1 ***
    0        0        0        0.
    3      0.1     1.2     26.
    7      0.2     3       62.
    15     1.9     17     100.
    15.5   2       18.2   200.
    17     2.1     30     720.
END FTABLE 60

```

```

FTABLE    70
rows cols                                     ***
 14   4
  depth    area    volume    outflow1 ***
    0        0        0        0.
    0.5    0.5      4       7.
    1      1        8      13.
    1.5    1.5     12     19.
    2      2       16     24.
    2.5    2.5     20     30.
    3      3       24     33.
    3.5    3.5     28     40.
    4      4       30    100.
    4.5    4.5    34.25  140.
    5      5       39    170.
    5.5    5.5    44.25  200.
    6      6       50    240.
    6.5    6.5    56.25  300.
END FTABLE 70

```

```

FTABLE    75
rows cols                                     ***
 10   4
  depth    area    volume    outflow1 ***
    0        0        0        0.
    0.52    1.17    1.1     2.4
    0.66    1.24    1.3     4.1
    0.84    1.33    1.5     6.5
    1.19    1.5     2.3    16.2
    1.86    1.74    3.5     38.
    2.85    2.68    5.1    63.5
    4.25    13.86   11.5   103.6

```

```

7.06 54.73 92.6 258.9
7.26 54.73 100.6 358.9
END FTABLE 75

```

```

FTABLE 80
rows cols ***
12 4
depth area volume outflow1 ***
0 0 0 0.
0.2 0.6294 0.063 0.05
0.5 0.816 0.28 0.49
1.77 0.48 0.6 4.7
2.05 0.5 0.7 7.8
2.39 0.51 0.8 12.5
3.37 0.6 1.2 31.2
4.53 0.78 2 62.4
5.92 1.31 3.4 120.1
6.76 2.17 5 168.4
8.04 5.37 9.5 259.4
12 9 21 660.
END FTABLE 80

```

```

FTABLE 85
rows cols ***
7 5
depth area volume outflow1 outflow2 ***
0 0.1 0 0. 0.
0.01 0.1 0.1 0. 40.
0.02 0.1 0.15 100. 100.
0.03 0.1 0.2 500. 100.
0.04 0.1 0.25 500. 100.
0.05 0.1 0.3 500. 100.
0.06 0.1 0.35 500. 100.
END FTABLE 85

```

```

FTABLE 90
rows cols ***
12 4
depth area volume outflow1 ***
0 0 0 0.
0.2 0.6294 0.063 0.05
0.5 0.816 0.28 0.49
1.77 0.48 0.6 4.7
2.05 0.5 0.7 7.8
2.39 0.51 0.8 12.5
3.37 0.6 1.2 31.2
4.53 0.78 2 62.4
5.92 1.31 3.4 120.1
6.76 2.17 5 168.4
8.04 5.37 9.5 259.4
10.04 15.37 29.5 359.4
END FTABLE 90

```

```

FTABLE 100
rows cols ***
10 4
depth area volume outflow1 ***
0 0 0 0.
0.5 0.816 0.254 0.49
1.33 1.44 1.8 6.8
1.62 1.54 2.3 10.6
1.98 1.73 2.9 16.9
3.14 2.24 5 42.2
4.98 3.14 8.5 84.4
6.55 9.45 17.7 155.3
8.05 15.53 29.3 217.2
10.34 23.16 57.1 332.2
END FTABLE100

```

```

FTABLE 110
rows cols ***
62 4
depth area volume outflow1 ***
0 33.609 0 0.
0.1 33.642 3.363 0.52
0.2 33.676 6.728 1.43

```

0.3	33.709	10.098	2.57
0.4	33.742	13.47	3.88
0.5	33.776	16.846	5.3
0.6	33.809	20.225	6.81
0.7	33.843	23.608	8.39
0.8	33.876	26.994	10.01
0.9	33.909	30.383	11.66
1	33.943	33.776	13.32
1.1	33.976	37.172	15.37
1.2	34.01	40.571	17.51
1.3	34.044	43.974	19.74
1.4	34.077	47.38	22.06
1.5	34.111	50.789	24.47
1.6	34.144	54.202	26.96
1.7	34.178	57.618	29.52
1.8	34.211	61.037	32.17
1.9	34.245	64.46	34.88
2	34.279	67.887	37.68
2.1	34.312	71.316	40.54
2.2	34.346	74.749	43.46
2.3	34.38	78.185	46.46
2.4	34.414	81.625	49.52
2.5	56.086	87.231	52.65
2.6	56.13	92.842	55.84
2.7	56.173	98.457	59.1
2.8	56.216	104.07	62.41
2.9	56.259	109.7	65.78
3	56.302	115.32	69.21
3.1	56.345	120.96	72.7
3.2	56.388	126.59	76.25
3.3	56.431	132.23	79.85
3.4	56.475	137.88	83.51
3.5	56.518	143.53	87.22
3.6	56.561	149.18	90.98
3.7	56.604	154.84	94.8
3.8	56.648	160.5	98.67
3.9	56.691	166.17	113.35
4	56.734	171.84	114.76
4.1	56.778	177.52	116.14
4.2	67.368	184.25	117.51
4.3	67.415	190.99	118.87
4.4	67.463	197.74	120.2
4.5	67.51	204.48	121.53
4.6	67.557	211.24	122.84
4.7	67.604	218	124.13
4.8	67.652	224.76	125.41
4.9	67.699	231.53	126.68
5	72.363	238.76	127.94
5.1	72.412	246	129.19
5.2	72.461	253.24	130.42
5.3	72.51	260.49	131.64
5.4	72.559	267.74	132.85
5.5	72.608	275	134.05
5.6	72.657	282.27	148.14
5.7	72.706	289.53	172.16
5.8	72.755	296.81	201.87
5.9	72.804	304.08	235.62
6	72.853	311.37	272.34
7.1	73.3	390	475.

END FTABLE110

depth	area	volume	outflow1	***
0	0	0	0.	
0.4	1.78	1.7	1.	
1	2.1	2.7	5.	
4.3	3.07	7.6	10.	
5.7	3.69	12.4	25.	
5.99	3.9	14.3	55.	
7.16	6	25	126.	
7.68	6.37	30	173.	
7.98	6.49	35	220.	
9.98	6.49	146.4	250.	

END FTABLE115

```

FTABLE      120
rows cols          ***
 10      4
  depth      area      volume      outflow1 ***
    0         0         0         0.
    0.5      0.816     0.254     0.49
    1.33     1.44     1.8       6.8
    1.62     1.54     2.3      10.6
    1.98     1.73     2.9      16.9
    3.14     2.24     5        42.2
    4.98     3.14     8.5      84.4
    6.55     9.45     17.7     155.3
    8.05     15.53    29.3     217.2
    10.34    23.16    57.1     332.2
END FTABLE120

```

```

FTABLE      150
rows cols          ***
 12      4
  depth      area      volume      outflow1 ***
    0         0         0         0.
    0.3      0.609     0.0914    0.29
    0.7      0.905     0.4235    2.61
    0.8       1         0.531     3.67
    1.64     1.4         1.65     11.6
    1.86     1.49     2.6       19.3
    2.14     1.58     3.6       30.8
    3.12     2         6         77.
    7.04     3.64     13.5     154.1
    7.93     4.42     18.4     260.6
    8.93     11.49    26        372.8
    10.13    17.1     45.9     593.9
END FTABLE150

```

```

FTABLE      140
rows cols          ***
 12      4
  depth      area      volume      outflow1 ***
    0         0         0         0.
    0.3      0.609     0.0914    0.29
    0.7      0.905     0.4235    2.61
    0.8       1         0.531     3.67
    1.64     1.4         1.65     11.6
    1.86     1.49     2.6       19.3
    2.14     1.58     3.6       30.8
    3.12     2         6         77.
    7.04     3.64     13.5     154.1
    7.93     4.42     18.4     260.6
    8.93     11.49    26        372.8
    10.13    17.1     45.9     593.9
END FTABLE140

```

```

FTABLE      130
rows cols          ***
 12      4
  depth      area      volume      outflow1 ***
    0         0         0         0.
    0.3      0.609     0.0914    0.29
    0.7      0.905     0.4235    2.61
    0.8       1         0.531     3.67
    1.64     1.4         2.3       11.6
    1.86     1.49     2.9       19.3
    2.14     1.58     3.6       30.8
    3.12     2         6         77.
    7.04     3.64     11.5     154.1
    7.93     4.42     18.4     260.6
    8.93     11.49    26        372.8
    10.13    17.1     45.9     593.9
END FTABLE130

```

```

FTABLE      160
rows cols          ***
 12      4
  depth      area      volume      outflow1 ***
    0         0         0         0.

```

0.3	0.6	0.08	0.29
0.7	0.92	0.36	2.61
0.8	1.05	0.46	3.67
2.33	1.24	2.4	15.
2.8	1.31	2.9	25.
3.35	1.4	3.6	40.
4.97	1.68	5.5	100.
12.5	3.33	10	200.
13.15	3.68	17	350.
13.95	4.1	24	500.
14.5	4.69	35	750.

END FTABLE160

FTABLE 170

rows cols ***

7 4

depth	area	volume	outflow1	***
0	0	0	0.	
1.1	3.7	0.089	2.2	
1.4	3.7	0.15	8.4	
1.7	3.7	0.282	9.5	
1.9	3.7	0.331	10.5	
2.6	3.7	0.715	24.7	
5.6	3.7	4.6	61.3	

END FTABLE170

FTABLE 180

rows cols ***

7 4

depth	area	volume	outflow1	***
0	0	0	0.	
1.1	3.7	0.089	2.2	
1.4	3.7	0.15	8.4	
1.7	3.7	0.282	9.5	
1.9	3.7	0.331	10.5	
2.6	3.7	0.715	24.7	
5.6	3.7	4.6	61.3	

END FTABLE180

FTABLE 190

rows cols ***

8 4

depth	area	volume	outflow1	***
0	0	0	0.	
1.1	3.7	0.089	2.2	
1.4	3.7	0.15	8.4	
1.7	3.7	0.282	9.5	
1.9	3.7	0.331	10.5	
2.6	3.7	0.715	24.7	
5.6	3.7	4.6	61.3	
7.6	13.7	14.6	361.3	

END FTABLE190

FTABLE 200

rows cols ***

7 4

depth	area	volume	outflow1	***
0	0	0	0.	
0.7	3.7	0.097	10.4	
1.15	3.7	0.21	31.1	
1.5	3.7	0.304	52.2	
1.74	3.7	0.422	75.6	
2.1	3.7	2.27	80.	
3.1	13.7	12.27	280.	

END FTABLE200

FTABLE 210

rows cols ***

7 4

depth	area	volume	outflow1	***
0	0	0	0.	
1.4	3.7	0.568	19.8	
1.9	3.7	1.026	39.7	
2.3	3.7	1.342	59.6	
2.8	3.7	1.959	78.	
3.1	3.7	2.559	120.	

3.6 3.7 4.47 190.
 END FTABLE210

FTABLE 220
 rows cols ***
 8 4
 depth area volume outflow1 ***
 0 0 0 0.
 1.4 3.7 0.568 19.8
 1.9 3.7 1.026 39.7
 2.3 3.7 1.342 59.6
 2.8 3.7 1.959 78.
 3.1 3.7 2.559 120.
 3.6 3.7 4.47 190.
 5.6 13.7 14.47 290.
 END FTABLE220

FTABLE 230
 rows cols ***
 7 4
 depth area volume outflow1 ***
 0 0 0 0.
 0.5 0.23 0.07 9.5
 1 0.32 0.22 63.5
 1.5 0.37 0.4 155.3
 2 0.41 0.58 265.8
 3 0.98 1.11 551.6
 4 1.09 2.14 1190.9
 END FTABLE230

FTABLE 240
 rows cols ***
 7 4
 depth area volume outflow1 ***
 0 0 0 0.
 0.5 0.33 0.11 5.2
 1 0.61 0.28 21.5
 1.5 0.77 0.66 78.6
 2 0.94 1.05 148.6
 3 1.27 3 424.2
 5 11.27 12.18 624.2
 END FTABLE240

FTABLE 250
 rows cols ***
 7 4
 depth area volume outflow1 ***
 0 0 0 0.
 0.5 0.25 0.06 2.5
 1 0.48 0.3 29.8
 1.5 0.61 0.61 71.4
 2 0.73 0.91 124.8
 3 0.91 1.68 288.6
 4 1.11 2.64 514.2
 END FTABLE250

FTABLE 270
 rows cols ***
 12 4
 depth area volume outflow1 ***
 0 0 0 0.
 0.23 0.36 0.2 1.3
 0.29 0.45 0.3 2.5
 0.54 0.49 0.4 5.
 1 0.54 0.6 10.
 2.19 0.62 0.9 20.
 4.31 0.73 1.5 39.
 6.24 0.83 2 45.
 7.25 0.89 2.5 49.
 8.24 1.46 4.8 63.
 8.94 2.02 7 125.
 10.94 12.02 17 225.
 END FTABLE270

FTABLE 260
 rows cols ***


```

12 4
  depth  area  volume  outflow1 ***
    0      0      0      0.
    1     3.14   3.1     5.4
    1.37   3.43   5      10.8
    1.89   3.72   9      21.5
    2.71   4.21  16     43.
    8.01   9.54  34.7   86.
   10.21  14.11  60.3   172.
   12.21  21.29   95    223.
   12.66  23.97  108.2  338.
   13.16  27.5   125.2  453.
   13.56  29.04  138.9  600.
   15.56  49.04  238.9  900.
END FTABLE260

```

```

FTABLE 280
rows cols ***
13 4
  depth  area  volume  outflow1 ***
    0      0      0      0.
    1.8    0.94   1.1     18.
    2.4    0.96   1.66    36.
    2.9    0.98   2.12    54.
    3.3    1.01   2.53    72.
    4.7    1.28   4.19   145.
    7.2    1.77   7.91   290.
    9.4    2.35  12.3   434.
   11.6    2.95  18.04  579.
   12.9   11.48  22.92  724.
   14.1   35.57  59.22  1086.
   14.8   40.87  84.55  1448.
    15   42.06  93.33  1593.
END FTABLE280

```

```

FTABLE 290
rows cols ***
15 4
  depth  area  volume  outflow1 ***
    0      0      0      0.
    0.45   0.01   0.02    0.6
    0.9    0.01   0.08    3.6
    1.35   0.01   0.15    9.
    1.8    0.01   0.23   15.6
    2.25   0.01   0.3     24.
    2.7    0.01   0.37    33.
    3.15   0.01   0.45    42.
    3.6    0.01   0.52   51.6
    4.05   0.01   0.58    57.
    4.5    0.01   0.6     60.
    5      0.1    0.63    61.
    6      2     1.68    62.
   10     4    13.68   66.
   12    20   37.68   70.
END FTABLE290

```

```

FTABLE 310
rows cols ***
13 4
  depth  area  volume  outflow1 ***
    0      0      0      0.
    1.6    1.37   1.69    20.
    2.1    1.42   2.42    40.
    2.5    1.47   3.01    60.
    2.9    1.5    3.55    80.
    4.3    1.82   5.86   159.
    6.7    2.38  10.88   318.
    8.6    2.84  15.76   477.
   10.4    3.26  21.16   636.
   11.4    4.75  24.75   795.
   13.3   72.22  88.48  1193.
   13.9  117.12  156.97  1590.
   14.9  117.74  166.84  1749.
END FTABLE310

```

```

FTABLE 350

```

```

rows cols          ***
 6      4
  depth      area  volume  outflow1 ***
  0          30     0       0.
  0.5       30.3   15.1    2.7
  1         30.6   30.3    4.
  1.5       31     45.7    5.
  3         31     92.2   20.
  4         31    123.2  95.
END FTABLE350

```

```

FTABLE 360
rows cols          ***
11     4
  depth      area  volume  outflow1 ***
  0          0     0       0.
  1         0.29   0.29    24.
  2         0.29   0.58    80.
  3         0.29   0.87   113.
  4         0.29   1.16   124.
  5         0.29   1.45   134.
  6         0.29   1.74   144.
  7         0.29   2.03   152.
  8         0.29   2.32   162.
  9         0.29   2.61   172.
 10        10.29  12.61  372.
END FTABLE360

```

```

FTABLE 370
rows cols          ***
11     5
  depth      area  volume  outflow1  outflow2 ***
  0          0     0       0.       0.
  0.5        1     0.17    1.       0.05
  1          3     1.17    4.       0.1
  1.5        5     3.17   11.      0.15
  2          7     6.17   20.      0.2
  2.5        9    10.17  26.      26.
  3         10    14.92  27.      40.
  3.5       10.5  20.04  28.      50.
  4         11    25.42  28.5     60.
  4.5       11    30.92  28.9     70.
  5         11    36.42  30.2     75.
END FTABLE370

```

```

FTABLE 390
rows cols          ***
 8      4
  depth      area  volume  outflow1 ***
  0          0     0       0.
  1         0.1    0.1     0.01
  6         0.1    0.63    0.06
  7         0.1    1.24    85.
  8         0.1    3.75   109.
  9         0.1    6.46   136.
 10        0.1    10     156.
 11        0.1    100    176.
END FTABLE390

```

```

FTABLE 380
rows cols          ***
14     4
  depth      area  volume  outflow1 ***
  0          0     0       0.
  0.5       10     5       0.1
  1         14     12      3.
  1.5       26     25     10.
  2         28     39     18.
  2.5       42     60     27.
  3         40     80     37.
  3.5       56    108     52.
  4         56    136     63.
  4.5       68    170     78.
  5         68    204     90.
  5.5       68    236    100.
  6         68    268    108.

```

7 68 350 308.
 END FTABLE380

FTABLE 320
 rows cols ***
 6 4
 depth area volume outflow1 ***
 0 0 0 0.
 1 13.69 6.99 0.05
 2 16.78 13.83 0.15
 3 29.6 56.98 0.45
 5 37.11 123.73 0.6
 7 42.41 203.25 100.
 END FTABLE320

FTABLE 400
 rows cols ***
 16 4
 depth area volume outflow1 ***
 0 0 0 0.
 0.3 0.01 0.01 0.3
 0.6 0.01 0.04 1.8
 0.9 0.01 0.07 4.5
 1.2 0.01 0.11 7.8
 1.5 0.01 0.15 12.
 1.8 0.01 0.18 16.5
 2.1 0.01 0.22 21.
 2.4 0.01 0.26 25.8
 2.7 0.01 0.29 28.5
 3 0.01 0.3 30.
 4 0.1 0.63 31.
 5 2 1.68 32.
 10 4 13.68 33.
 12 20 37.68 35.
 14 20 77.68 37.
 END FTABLE400

FTABLE 420
 rows cols ***
 13 4
 depth area volume outflow1 ***
 0 0 0 0.
 3.7 1.48 3.67 20.
 4.5 1.54 4.39 39.
 5.1 1.56 5 59.
 5.8 1.59 5.66 78.
 7.4 1.82 8.2 157.
 9.6 3.24 14 313.
 11 21.37 32.72 470.
 12 36.8 82.2 626.
 12.6 37.63 126.3 783.
 14.1 153.57 430.05 1175.
 15.1 167.21 552.84 1566.
 15.5 167.66 560.75 1723.
 END FTABLE420

FTABLE 325
 rows cols ***
 9 4
 depth area volume outflow1 ***
 0 0 0 0.
 3.7 1.48 4 20.
 4.5 1.54 12.72 39.
 5.1 1.56 20.2 59.
 5.8 1.59 30.36 78.
 7.4 1.82 56.05 157.
 9.6 3.24 108.75 313.
 11 21.37 162.75 470.
 12 21.37 202.75 770.
 END FTABLE325

FTABLE 430
 rows cols ***
 13 4
 depth area volume outflow1 ***
 0 0 0 0.

3.7	0.24	0.75	20.
4.5	0.25	0.95	41.
5.1	0.25	1.1	61.
5.7	0.26	1.25	81.
7.3	0.27	1.68	162.
9.4	0.46	2.42	324.
10.8	3.97	5.25	487.
11.9	4.14	9.58	649.
12.5	4.3	12.4	811.
14.1	5.1	20.09	1217.
15.2	5.25	25.62	1622.
15.6	8.1	31.42	1784.

END FTABLE430

FTABLE 330

rows cols ***

13 4

depth	area	volume	outflow1	***
0	0	0	0.	
0.45	0.01	0.02	0.6	
0.9	0.01	0.08	3.6	
1.35	0.01	0.15	9.	
1.8	0.01	0.23	15.6	
2.25	0.01	0.3	24.	
2.7	0.01	0.37	33.	
3.15	0.01	0.45	42.	
3.6	0.01	0.46	51.6	
4	0.01	0.47	57.	
6	2	2.46	62.	
8	4	8.46	66.	
10	20	32.46	70.	

END FTABLE330

FTABLE 340

rows cols ***

12 4

depth	area	volume	outflow1	***
0	0	0	0.	
2	0.08	0.1	28.	
3	0.16	0.2	35.	
4	0.16	0.4	43.	
5	1.58	1.2	48.	
6	9.3	6.7	28.8	
7	23.52	23.1	52.	
8	43.6	56.6	58.	
9	62.28	109.6	61.	
10	93.58	187.5	67.	
11	134.4	301.5	73.	
11.5	142.72	370.8	79.	

END FTABLE340

FTABLE 410

rows cols ***

13 4

depth	area	volume	outflow1	***
0	0	0	0.	
2.95	2.63	6.31	2.	
3.68	2.87	8.32	5.	
4.26	3.06	10.04	7.5	
4.71	3.21	11.45	10.	
6.13	3.68	16.34	20.	
8.13	4.34	24.36	40.	
9.71	4.86	31.63	60.	
11.14	5.34	38.93	80.	
12.5	5.79	46.49	100.	
15.37	6.73	64.45	150.	
18.44	7.75	86.68	200.	
19.51	16.53	100	220.	

END FTABLE410

FTABLE 460

rows cols ***

13 4

depth	area	volume	outflow1	***
0	0	0	0.	
2.1	0.3	0.74	20.	

2.9	0.3	0.96	41.
3.5	0.32	1.15	61.
4.1	0.32	1.35	81.
5.6	0.35	1.89	162.
7.7	0.59	2.83	324.
9.1	0.8	3.8	487.
10.1	1.22	4.77	649.
10.9	16.87	21.36	811.
12.5	17.94	49.88	1217.
13.6	18.55	69.93	1622.
14	18.78	77.55	1784.

END FTABLE460

FTABLE 440

rows cols ***

16 4

depth	area	volume	outflow1	***
0	0	0	0.	
0.5	0.01	0.05	1.1	
1	0.01	0.18	6.6	
1.5	0.01	0.32	16.5	
2	0.01	0.48	28.6	
2.5	0.01	0.63	44.	
3	0.01	0.79	60.5	
3.5	0.01	0.95	77.	
4	0.01	1.09	94.6	
4.5	0.01	1.22	104.5	
5	0.01	1.27	110.	
5.5	0.1	1.63	112.	
6	2	1.68	114.	
10	4	13.68	117.	
12	20	37.68	120.	
14	120	237.68	150.	

END FTABLE440

FTABLE 470

rows cols ***

13 4

depth	area	volume	outflow1	***
0	0	0	0.	
2.9	2.05	3.23	23.	
3.1	2.11	4.16	46.	
3.3	2.16	4.98	69.	
3.5	2.32	5.81	92.	
4.2	2.8	8.69	183.	
5.2	3.67	13.74	366.	
5.9	4.56	18.75	549.	
6.5	6.76	24.48	732.	
7	11.98	34.7	915.	
8.2	18.02	59.45	1373.	
9.1	41.17	135.98	1830.	
9.5	43.11	153.46	2013.	

END FTABLE470

FTABLE 480

rows cols ***

8 4

depth	area	volume	outflow1	***
0	0	0	0.	
0.5	0.15	0.04	2.97	
1	0.15	0.12	7.95	
1.5	0.15	0.2	13.63	
2	0.15	0.28	19.33	
2.5	0.15	0.34	24.28	
3	0.15	0.38	27.3	
6	10	30	27.5	

END FTABLE480

FTABLE 490

rows cols ***

7 4

depth	area	volume	outflow1	***
0	0	0	0.	
0.5	0.33	0.08	5.	
1	0.33	0.24	13.7	
2	0.33	0.6	35.	

```

      3      0.33      0.96      56.
      4      0.33      1.2      69.9
     10      20      39.67      70.
END FTABLE490

```

```

FTABLE      500
rows cols      ***
 8      4
  depth      area      volume      outflow1      ***
    0          0          0          0.
   0.5        0.2        0.08        6.4
    1          0.2        0.2         18.
    2          0.2        0.54        47.
    3          0.2         0.9       79.2
    4          0.2        1.22       108.2
    5          0.2        1.42       126.
   10         20       33.15       128.
END FTABLE500

```

```

FTABLE      510
rows cols      ***
13      4
  depth      area      volume      outflow1      ***
    0          0          0          0.
   2.7        4.78        4.69        24.
   2.9        4.88        5.93        47.
   3.1        4.97        7.12        71.
   3.2        5.03        7.97        95.
   3.6        5.25       10.99       189.
   4.2        5.55       15.62       378.
   4.7        5.77       19.25       567.
   4.9        5.91       21.87       756.
   5.3        6.08       24.74       945.
   5.9        6.39       30.47      1418.
   6.4        6.67       35.56      1890.
   6.8        6.86       37.9       2079.
END FTABLE510

```

```

FTABLE      520
rows cols      ***
16      4
  depth      area      volume      outflow1      ***
    0      11.02          0          0.
   0.37     12.31        4.45          0.
   0.38     12.47        6.26          70.
   0.62     12.73        8.34          70.
   0.63     12.98       11.41         205.
   0.87     13.21       13.11         205.
   0.88     13.4        15.55         340.
   1.87     14.55         20          340.
   1.88     16.29       29.59         960.
   2.12     16.77        32.3         960.
   2.13     16.87       36.38       1360.
   2.37     16.92       38.84       1360.
   2.38     17.01       42.63       1700.
    4       17.46       63.44       1700.
    8        30        250       6000.
   12        50        500      12000.
END FTABLE520
END FTABLES

```

```

COPY
TIMESERIES
Copy-opn***
*** x - x NPT NMN
    1    5    0    7
END TIMESERIES

```

END COPY

```

GENER
OPCODE
*** GENER OP-
*** x - x CODE
    8    51    19
   80   510   16

```

```

END OPCODE

END GENER

EXT SOURCES
***PREC 10 IS PANTHER CREEK (OCT 1998 - SEP 2001)
<-Volume-> <Member> SsysSgap<--Mult-->Tran <-Target vols> <-Grp> <-Member-> ***
<Name> # <Name> # tem strg<-factor->strg <Name> # # <Name> # # ***
**** ATM DEPOSITION
*** The conversion factor for (mg/l) to (lb/cf) = 6.245E-5.
*** We are dividing this by 2 to take the average from 2 stations.
WDM1 2001 NO3D ENGL 3.122E-5SAME PERLND 1 999 EXTNL PQADCN 1 1
WDM1 2001 NO3D ENGL 3.122E-5SAME IMPLND 1 999 EXTNL IQADCN 1
WDM1 2002 NO3D ENGL 3.122E-5SAME PERLND 1 999 EXTNL PQADCN 1 1
WDM1 2002 NO3D ENGL 3.122E-5SAME IMPLND 1 999 EXTNL IQADCN 1
WDM1 2011 NH3D ENGL 3.122E-5SAME PERLND 1 999 EXTNL PQADCN 2 1
WDM1 2011 NH3D ENGL 3.122E-5SAME IMPLND 1 999 EXTNL IQADCN 2
WDM1 2012 NH3D ENGL 3.122E-5SAME PERLND 1 999 EXTNL PQADCN 2 1
WDM1 2012 NH3D ENGL 3.122E-5SAME IMPLND 1 999 EXTNL IQADCN 2

WDM1 1007 PREC ENGL PERLND 1 199 EXTNL PREC
WDM1 1007 PREC ENGL IMPLND 1 199 EXTNL PREC
WDM1 1007 PREC ENGL 0.900 PERLND 200 999 EXTNL PREC
WDM1 1007 PREC ENGL 0.900 IMPLND 200 999 EXTNL PREC
WDM1 1002 EVAP ENGL 0.78 PERLND 1 999 EXTNL PETINP
WDM1 1002 EVAP ENGL 0.78 IMPLND 1 999 EXTNL PETINP
*** Kent used for Air Temp, Sea-Tac for other 4 cons
WDM1 30 ATEM ENGL 1. SAME PERLND 1 999 EXTNL GATMP
WDM1 30 ATEM ENGL 1. SAME IMPLND 1 999 EXTNL GATMP
WDM1 30 ATEM ENGL 1. SAME RCHRES 1 999 EXTNL GATMP
WDM1 12 DEWP ENGL 1. SAME RCHRES 1 999 EXTNL DEWTMP
WDM1 13 AWND ENGL 1. DIV RCHRES 1 999 EXTNL WIND
WDM1 11 SOLR ENGL 1. DIV RCHRES 1 999 EXTNL SOLRAD
WDM1 14 CLOU ENGL 1. SAME RCHRES 1 999 EXTNL CLOUD
*** pumping time series
WDM2 99 FLOW ENGL AVER RCHRES 520 EXTNL OUTDGT 1
END EXT SOURCES

NETWORK
<-Volume-> <-Grp> <-Member-><--Mult-->Tran <-Target vols> <-Grp> <-Member-> ***
<Name> x <Name> x x<-factor->strg <Name> x x <Name> x x ***
*** Calculating Total Suspended Concentration of Cu
*** Converting Total Suspended Sorbed Copper [LB] to [ug]
RCHRES 80 GQUAL RSQAL 4 3 453590000 GENER 8 INPUT ONE
*** Converting AC-FT to L
RCHRES 80 HYDR VOL 1233500 GENER 8 INPUT TWO
RCHRES 80 GQUAL DQAL 3 GENER 80 INPUT TWO
*** Converting Total Suspended Sorbed Copper [LB] to [ug]
RCHRES 360 GQUAL RSQAL 4 3 453590000 GENER 36 INPUT ONE
*** Converting AC-FT to L
RCHRES 360 HYDR VOL 1233500 GENER 36 INPUT TWO
RCHRES 360 GQUAL DQAL 3 GENER 360 INPUT TWO
*** Converting Total Suspended Sorbed Copper [LB] to [ug]
RCHRES 470 GQUAL RSQAL 4 3 453590000 GENER 47 INPUT ONE
*** Converting AC-FT to L
RCHRES 470 HYDR VOL 1233500 GENER 47 INPUT TWO
RCHRES 470 GQUAL DQAL 3 GENER 470 INPUT TWO
*** Converting Total Suspended Sorbed Copper [LB] to [ug]
RCHRES 510 GQUAL RSQAL 4 3 453590000 GENER 51 INPUT ONE
*** Converting AC-FT to L
RCHRES 510 HYDR VOL 1233500 GENER 51 INPUT TWO
RCHRES 510 GQUAL DQAL 3 GENER 510 INPUT TWO
*** Need to add dissolved Conc.
GENER 8 OUTPUT TIMSER GENER 80 INPUT ONE
*** Need to add dissolved Conc.
GENER 36 OUTPUT TIMSER GENER 360 INPUT ONE
*** Need to add dissolved Conc.
GENER 47 OUTPUT TIMSER GENER 470 INPUT ONE
*** Need to add dissolved Conc.
GENER 51 OUTPUT TIMSER GENER 510 INPUT ONE
END NETWORK

SCHEMATIC
<-Volume-> <--Area--> <-Volume-> <ML#> *** <sb>
<Name> x <-factor-> <Name> x *** x x
PERLND 11 27.35 RCHRES 5 1

```

```

PERLND 21                18.67    RCHRES 5      1
PERLND 22                17.48    RCHRES 5      1
PERLND 41                24.54    RCHRES 5      1
PERLND 42                22.42    RCHRES 5      1
PERLND 51                19.65    RCHRES 5      1
PERLND 31                25.66    RCHRES 5      1
PERLND 85                9.49     RCHRES 5      1
IMPLND 91                3.85     RCHRES 5      3
IMPLND 92                6.93     RCHRES 5      3
IMPLND 93                0.68     RCHRES 5      3
IMPLND 94                8.97     RCHRES 5      3
***
***
*** CHANNEL NETWORK LINKAGES ***
<-Source->              <--Area-->      <-Target->      MBLK    ***
    *** UPPER MILL CREEK
*** FLOW SPLITTER HERE  10 AND 30
RCHRES 5                RCHRES 10      7
Sub Basin 20            ***
<-Source->              <--Area-->      <-Target->      MBLK    ***
PERLND 11              20.12    RCHRES 20      1
PERLND 21              9.84     RCHRES 20      1
PERLND 41              44.15    RCHRES 20      1
PERLND 51              52.92    RCHRES 20      1
PERLND 31              25.04    RCHRES 20      1
IMPLND 91              3.58     RCHRES 20      3
IMPLND 92              21.96    RCHRES 20      3
IMPLND 93              2.32     RCHRES 20      3
IMPLND 94              2.75     RCHRES 20      3
Sub Basin 30            ***
<-Source->              <--Area-->      <-Target->      MBLK    ***
PERLND 11              43.73    RCHRES 30      1
PERLND 21              24.82    RCHRES 30      1
PERLND 41              61.19    RCHRES 30      1
PERLND 51              118.17   RCHRES 30      1
PERLND 61              23.55    RCHRES 30      1
PERLND 31              31.59    RCHRES 30      1
IMPLND 91              4.51     RCHRES 30      3
IMPLND 92              70.2     RCHRES 30      3
IMPLND 93              18.28    RCHRES 30      3
IMPLND 94              20.52    RCHRES 30      3
RCHRES 20              RCHRES 30      6
Sub Basin 40            ***
<-Source->              <--Area-->      <-Target->      MBLK    ***
PERLND 11              12.32    RCHRES 40      1
PERLND 13              11.16    RCHRES 40      1
PERLND 14              14.89    RCHRES 40      1
PERLND 41              11.94    RCHRES 40      1
PERLND 42              12.79    RCHRES 40      1
PERLND 43              9.31     RCHRES 40      1
PERLND 44              11.28    RCHRES 40      1
PERLND 51              25.66    RCHRES 40      1
PERLND 31              22.02    RCHRES 40      1
IMPLND 91              3.15     RCHRES 40      3
IMPLND 92              10.84    RCHRES 40      3
IMPLND 93              1.7      RCHRES 40      3
IMPLND 94              7.27     RCHRES 40      3
RCHRES 5               RCHRES 40      8
RCHRES 10              RCHRES 40      6
RCHRES 30              RCHRES 40      6
Sub Basin 50            ***
<-Source->              <--Area-->      <-Target->      MBLK    ***
PERLND 11              12.1     RCHRES 50      1
PERLND 21              13.79    RCHRES 50      1
PERLND 41              23.15    RCHRES 50      1
PERLND 42              19.15    RCHRES 50      1
PERLND 51              37.01    RCHRES 50      1
PERLND 52              23.68    RCHRES 50      1
PERLND 31              23.18    RCHRES 50      1
IMPLND 91              3.31     RCHRES 50      3
IMPLND 92              30.16    RCHRES 50      3
IMPLND 93              5.33     RCHRES 50      3
IMPLND 94              9.01     RCHRES 50      3
Sub Basin 60            ***
<-Source->              <--Area-->      <-Target->      MBLK    ***
PERLND 11              53.54    RCHRES 60      1

```


Black/Springbrook UCI File

PERLND	21	23.71	RCHRES	60	1
PERLND	42	81.17	RCHRES	60	1
PERLND	51	35	RCHRES	60	1
PERLND	52	44.35	RCHRES	60	1
PERLND	53	41.24	RCHRES	60	1
PERLND	31	44.86	RCHRES	60	1
PERLND	74	23.55	RCHRES	60	1
PERLND	75	27.02	RCHRES	60	1
IMPLND	91	7.34	RCHRES	60	3
IMPLND	92	52.93	RCHRES	60	3
IMPLND	93	6	RCHRES	60	3
IMPLND	94	25.3	RCHRES	60	3
RCHRES	40		RCHRES	60	6
RCHRES	50		RCHRES	60	6
Sub Basin	70	***			
<-Source->		<--Area-->	<-Target->	MBLK	***
PERLND	41	58	RCHRES	70	1
PERLND	51	152.82	RCHRES	70	1
PERLND	74	42.61	RCHRES	70	1
PERLND	75	93.83	RCHRES	70	1
IMPLND	91	3.97	RCHRES	70	3
IMPLND	92	131.59	RCHRES	70	3
IMPLND	93	31.03	RCHRES	70	3
IMPLND	94	44.34	RCHRES	70	3
RCHRES	60		RCHRES	75	6
Sub Basin	80	***			
<-Source->		<--Area-->	<-Target->	MBLK	***
PERLND	51	31.01	RCHRES	80	2
PERLND	72	31.32	RCHRES	80	2
PERLND	74	40.98	RCHRES	80	2
PERLND	75	115.16	RCHRES	80	2
PERLND	76	39.13	RCHRES	80	2
IMPLND	91	2.09	RCHRES	80	3
IMPLND	92	90.62	RCHRES	80	3
IMPLND	93	31.44	RCHRES	80	3
IMPLND	94	24.85	RCHRES	80	3
RCHRES	70		RCHRES	80	6
RCHRES	75		RCHRES	80	6
RCHRES	80		RCHRES	85	6
Sub Basin	90	***			
<-Source->		<--Area-->	<-Target->	MBLK	***
PERLND	72	59.07	RCHRES	90	2
PERLND	74	125.74	RCHRES	90	2
PERLND	75	154.06	RCHRES	90	2
PERLND	73	54.17	RCHRES	90	2
IMPLND	91	6.16	RCHRES	90	3
IMPLND	92	70.98	RCHRES	90	3
IMPLND	93	16.68	RCHRES	90	3
IMPLND	94	23.11	RCHRES	90	3
Sub Basin	100	***			
<-Source->		<--Area-->	<-Target->	MBLK	***
PERLND	74	84.31	RCHRES	100	2
PERLND	75	140.33	RCHRES	100	2
PERLND	76	72.6	RCHRES	100	2
IMPLND	91	2.55	RCHRES	100	3
IMPLND	92	95.87	RCHRES	100	3
IMPLND	93	55.33	RCHRES	100	3
IMPLND	94	30.13	RCHRES	100	3
Sub Basin	110	***			
<-Source->		<--Area-->	<-Target->	MBLK	***
PERLND	271	50.6	RCHRES	110	4
PERLND	272	119.73	RCHRES	110	4
PERLND	273	109.5	RCHRES	110	4
PERLND	274	297.9	RCHRES	110	4
PERLND	275	132.15	RCHRES	110	4
PERLND	276	49.5	RCHRES	110	4
IMPLND	291	15.64	RCHRES	110	3
IMPLND	292	76.63	RCHRES	110	3
IMPLND	293	43.85	RCHRES	110	3
IMPLND	294	13.88	RCHRES	110	3
***FLOW SPLITTER HERE	110 AND 130				
RCHRES	90		RCHRES	110	6
RCHRES	100		RCHRES	110	6
RCHRES	85		RCHRES	110	7
RCHRES	110		RCHRES	115	6
Sub Basin	120	***			

Black/Springbrook UCI File

<-Source->	<--Area-->	<-Target->	MBLK	***
PERLND 74	8.97	RCHRES 120	2	
PERLND 75	35.42	RCHRES 120	2	
PERLND 76	13.53	RCHRES 120	2	
IMPLND 91	0.29	RCHRES 120	3	
IMPLND 92	25.98	RCHRES 120	3	
IMPLND 93	11.4	RCHRES 120	3	
IMPLND 94	2.13	RCHRES 120	3	
Sub Basin 150	***			
<-Source->	<--Area-->	<-Target->	MBLK	***
PERLND 274	57.39	RCHRES 150	2	
PERLND 275	104.91	RCHRES 150	2	
PERLND 276	58.2	RCHRES 150	2	
IMPLND 291	1.97	RCHRES 150	3	
IMPLND 292	73.76	RCHRES 150	3	
IMPLND 293	46.93	RCHRES 150	3	
IMPLND 294	15.84	RCHRES 150	3	
Sub Basin 140	***			
<-Source->	<--Area-->	<-Target->	MBLK	***
PERLND 274	9.22	RCHRES 140	2	
PERLND 275	24.88	RCHRES 140	2	
PERLND 276	16.38	RCHRES 140	2	
IMPLND 291	0.34	RCHRES 140	3	
IMPLND 292	17.52	RCHRES 140	3	
IMPLND 293	13.1	RCHRES 140	3	
IMPLND 294	7.42	RCHRES 140	3	
Sub Basin 130	***			
<-Source->	<--Area-->	<-Target->	MBLK	***
PERLND 51	19.28	RCHRES 130	2	
PERLND 74	45.76	RCHRES 130	2	
PERLND 75	106.78	RCHRES 130	2	
PERLND 76	44.12	RCHRES 130	2	
IMPLND 91	1.87	RCHRES 130	3	
IMPLND 92	78.28	RCHRES 130	3	
IMPLND 93	37.83	RCHRES 130	3	
IMPLND 94	13.05	RCHRES 130	3	
RCHRES 85		RCHRES 130	8	
RCHRES 120		RCHRES 130	6	
RCHRES 150		RCHRES 130	6	
RCHRES 140		RCHRES 130	6	
Sub Basin 160	***			
<-Source->	<--Area-->	<-Target->	MBLK	***
PERLND 251	66.18	RCHRES 160	4	
PERLND 272	130.29	RCHRES 160	4	
PERLND 274	115.2	RCHRES 160	4	
PERLND 275	298	RCHRES 160	4	
PERLND 276	146.93	RCHRES 160	4	
IMPLND 291	6.85	RCHRES 160	3	
IMPLND 292	221.17	RCHRES 160	3	
IMPLND 293	121.72	RCHRES 160	3	
IMPLND 294	53.27	RCHRES 160	3	
RCHRES 115		RCHRES 160	6	
RCHRES 130		RCHRES 160	6	
Sub Basin 170	***			
<-Source->	<--Area-->	<-Target->	MBLK	***
PERLND 21	30.44	RCHRES 170	1	
PERLND 41	20.72	RCHRES 170	1	
PERLND 51	10.66	RCHRES 170	1	
PERLND 31	12.54	RCHRES 170	1	
IMPLND 91	1.49	RCHRES 170	3	
IMPLND 92	4.01	RCHRES 170	3	
IMPLND 93	0.8	RCHRES 170	3	
IMPLND 94	3.39	RCHRES 170	3	
Sub Basin 180	***			
<-Source->	<--Area-->	<-Target->	MBLK	***
PERLND 11	21.55	RCHRES 180	1	
PERLND 21	15	RCHRES 180	1	
PERLND 41	27.44	RCHRES 180	1	
PERLND 51	17.47	RCHRES 180	1	
PERLND 31	15.4	RCHRES 180	1	
IMPLND 91	2.2	RCHRES 180	3	
IMPLND 92	6.56	RCHRES 180	3	
IMPLND 93	0.09	RCHRES 180	3	
IMPLND 94	3.29	RCHRES 180	3	
Sub Basin 190	***			
<-Source->	<--Area-->	<-Target->	MBLK	***

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PERLND 21                22.87    RCHRES 190    1
PERLND 22                8.97     RCHRES 190    1
PERLND 41                16.17   RCHRES 190    1
PERLND 42                 5.3     RCHRES 190    1
PERLND 51                17.93   RCHRES 190    1
PERLND 31                13.5    RCHRES 190    1
IMPLND 91                1.68    RCHRES 190    3
IMPLND 92                8.76    RCHRES 190    3
IMPLND 93                0.5     RCHRES 190    3
IMPLND 94                2.3     RCHRES 190    3
***END UPPER MILL CREEK
***GARRISON CREEK
RCHRES 170                RCHRES 190    6
Sub Basin 200            ***
<-Source->              <--Area-->    <-Target->    MBLK    ***
PERLND 21                45.29   RCHRES 200    2
PERLND 41                46.65   RCHRES 200    2
PERLND 51                102.96  RCHRES 200    2
PERLND 31                35.52   RCHRES 200    2
PERLND 75                33.95   RCHRES 200    2
IMPLND 91                4.41    RCHRES 200    3
IMPLND 92                60.81   RCHRES 200    3
IMPLND 93                10.76   RCHRES 200    3
IMPLND 94                8.27    RCHRES 200    3
RCHRES 180                RCHRES 200    6
RCHRES 190                RCHRES 200    6
Sub Basin 210            ***
<-Source->              <--Area-->    <-Target->    MBLK    ***
PERLND 41                37      RCHRES 210    2
PERLND 51                85.22   RCHRES 210    2
PERLND 52                26.38   RCHRES 210    2
PERLND 31                21.18   RCHRES 210    2
IMPLND 91                2.21    RCHRES 210    3
IMPLND 92                40.95   RCHRES 210    3
IMPLND 93                1.48    RCHRES 210    3
IMPLND 94                4.97    RCHRES 210    3
Sub Basin 220            ***
<-Source->              <--Area-->    <-Target->    MBLK    ***
PERLND 11                16.7    RCHRES 220    2
PERLND 21                10.21   RCHRES 220    2
PERLND 41                8.38    RCHRES 220    2
PERLND 42                22.18   RCHRES 220    2
PERLND 51                25.1    RCHRES 220    2
PERLND 31                17.75   RCHRES 220    2
PERLND 71                10.38   RCHRES 220    2
PERLND 74                22.78   RCHRES 220    2
PERLND 73                8.43    RCHRES 220    2
IMPLND 91                3.74    RCHRES 220    3
IMPLND 92                12.91   RCHRES 220    3
IMPLND 93                1.64    RCHRES 220    3
IMPLND 94                1.78    RCHRES 220    3
RCHRES 210                RCHRES 220    6
RCHRES 200                RCHRES 220    6
Sub Basin 230            ***
<-Source->              <--Area-->    <-Target->    MBLK    ***
PERLND 11                61.27   RCHRES 230    2
PERLND 21                79.74   RCHRES 230    2
PERLND 41                128.63  RCHRES 230    2
PERLND 51                142.42  RCHRES 230    2
PERLND 52                75.77   RCHRES 230    2
PERLND 31                71.74   RCHRES 230    2
IMPLND 91                10.25   RCHRES 230    3
IMPLND 92                86.42   RCHRES 230    3
IMPLND 93                6.94    RCHRES 230    3
IMPLND 94                12.78   RCHRES 230    3
Sub Basin 240            ***
<-Source->              <--Area-->    <-Target->    MBLK    ***
PERLND 11                10.61   RCHRES 240    2
PERLND 13                7.99    RCHRES 240    2
PERLND 14                8.28    RCHRES 240    2
PERLND 42                10.09   RCHRES 240    2
PERLND 43                9.45    RCHRES 240    2
PERLND 44                8.35    RCHRES 240    2
PERLND 51                7.82    RCHRES 240    2
PERLND 31                15      RCHRES 240    2
PERLND 74                12.11   RCHRES 240    2

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PERLND 75	15.48	RCHRES 240	2	
PERLND 73	13.17	RCHRES 240	2	
IMPLND 91	3.08	RCHRES 240	3	
IMPLND 92	7.89	RCHRES 240	3	
IMPLND 93	0.19	RCHRES 240	3	
IMPLND 94	3.91	RCHRES 240	3	
RCHRES 230		RCHRES 240	6	
RCHRES 220		RCHRES 240	6	
Sub Basin 250	***			
<-Source->	<--Area-->	<-Target->	MBLK	***
PERLND 21	22	RCHRES 250	2	
PERLND 41	53.3	RCHRES 250	2	
PERLND 51	78.17	RCHRES 250	2	
PERLND 52	63.52	RCHRES 250	2	
PERLND 31	48.26	RCHRES 250	2	
PERLND 75	38.08	RCHRES 250	2	
IMPLND 91	5.04	RCHRES 250	3	
IMPLND 92	60.66	RCHRES 250	3	
IMPLND 93	9.02	RCHRES 250	3	
IMPLND 94	17.94	RCHRES 250	3	
Sub Basin 270	***			
<-Source->	<--Area-->	<-Target->	MBLK	***
PERLND 211	77.7	RCHRES 270	2	
PERLND 214	62.36	RCHRES 270	2	
PERLND 221	52.36	RCHRES 270	2	
PERLND 241	132.35	RCHRES 270	2	
PERLND 251	75.6	RCHRES 270	2	
PERLND 252	107.72	RCHRES 270	2	
PERLND 231	71.19	RCHRES 270	2	
PERLND 271	70.8	RCHRES 270	2	
PERLND 274	80.03	RCHRES 270	2	
IMPLND 291	12.52	RCHRES 270	3	
IMPLND 292	80.16	RCHRES 270	3	
IMPLND 293	6.42	RCHRES 270	3	
IMPLND 294	18.32	RCHRES 270	3	
Sub Basin 260	***			
<-Source->	<--Area-->	<-Target->	MBLK	***
PERLND 211	70.17	RCHRES 260	2	
PERLND 241	106.31	RCHRES 260	2	
PERLND 251	92.05	RCHRES 260	2	
PERLND 274	92.61	RCHRES 260	2	
PERLND 275	204.38	RCHRES 260	2	
PERLND 276	115.61	RCHRES 260	2	
PERLND 273	64.63	RCHRES 260	2	
IMPLND 291	9.94	RCHRES 260	3	
IMPLND 292	174.86	RCHRES 260	3	
IMPLND 293	93.9	RCHRES 260	3	
IMPLND 294	62.7	RCHRES 260	3	
RCHRES 240		RCHRES 260	6	
RCHRES 250		RCHRES 260	6	
RCHRES 270		RCHRES 260	6	
PERLND 271	50.6	RCHRES 280	5	
PERLND 272	119.73	RCHRES 280	5	
PERLND 273	109.5	RCHRES 280	5	
PERLND 274	297.9	RCHRES 280	5	
PERLND 275	132.15	RCHRES 280	5	
PERLND 276	49.5	RCHRES 280	5	
PERLND 251	66.18	RCHRES 280	5	
PERLND 272	130.29	RCHRES 280	5	
PERLND 274	115.2	RCHRES 280	5	
PERLND 275	298	RCHRES 280	5	
PERLND 276	146.93	RCHRES 280	5	
Sub Basin 280	***			
<-Source->	<--Area-->	<-Target->	MBLK	***
PERLND 271	13.65	RCHRES 280	2	
PERLND 272	2.71	RCHRES 280	2	
PERLND 274	11.34	RCHRES 280	2	
PERLND 275	5.96	RCHRES 280	2	
PERLND 273	3.73	RCHRES 280	2	
IMPLND 291	0.53	RCHRES 280	3	
IMPLND 292	2.96	RCHRES 280	3	
IMPLND 293	0.48	RCHRES 280	3	
IMPLND 294	1.36	RCHRES 280	3	
*** END GARRISON CREEK				
*** CONFLUENCE OF GARRISON AND UPPER MILL CREEK				
RCHRES 160		RCHRES 280	6	

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RCHRES 260			RCHRES 280	6	
Sub Basin 290	***				
<-Source->		<--Area-->	<-Target->	MBLK	***
PERLND 241		35.17	RCHRES 290	2	
PERLND 274		21.66	RCHRES 290	2	
PERLND 275		65.6	RCHRES 290	2	
PERLND 276		49.61	RCHRES 290	2	
PERLND 273		18.2	RCHRES 290	2	
IMPLND 291		2.28	RCHRES 290	3	
IMPLND 292		49.98	RCHRES 290	3	
IMPLND 293		42.47	RCHRES 290	3	
IMPLND 294		26.47	RCHRES 290	3	
Sub Basin 300	***				
<-Source->		<--Area-->	<-Target->	MBLK	***
PERLND 271		6.67	RCHRES 310	2	
PERLND 272		3.14	RCHRES 310	2	
PERLND 274		6.66	RCHRES 310	2	
PERLND 275		10.34	RCHRES 310	2	
PERLND 284		5.79	RCHRES 310	2	
PERLND 285		7.82	RCHRES 310	2	
IMPLND 291		0.5	RCHRES 310	3	
IMPLND 292		9.89	RCHRES 310	3	
IMPLND 293		2.56	RCHRES 310	3	
IMPLND 294		1.37	RCHRES 310	3	
Sub Basin 310	***				
<-Source->		<--Area-->	<-Target->	MBLK	***
PERLND 241		14.44	RCHRES 310	2	
PERLND 271		20.41	RCHRES 310	2	
PERLND 274		22.81	RCHRES 310	2	
PERLND 275		24.38	RCHRES 310	2	
PERLND 276		8.66	RCHRES 310	2	
PERLND 273		8.58	RCHRES 310	2	
IMPLND 291		1.86	RCHRES 310	3	
IMPLND 292		18.22	RCHRES 310	3	
IMPLND 293		6	RCHRES 310	3	
IMPLND 294		8.56	RCHRES 310	3	
***LOWER MILL CREEK/SPRINGBROOK CREEK					
RCHRES 280			RCHRES 310	6	
RCHRES 290			RCHRES 310	6	
Sub Basin 350	***				
<-Source->		<--Area-->	<-Target->	MBLK	***
PERLND 11		34.16	RCHRES 350	1	
PERLND 21		28.69	RCHRES 350	1	
PERLND 41		42.65	RCHRES 350	1	
PERLND 51		39.67	RCHRES 350	1	
PERLND 31		22.7	RCHRES 350	1	
PERLND 81		29.89	RCHRES 350	1	
PERLND 82		13.72	RCHRES 350	1	
PERLND 84		32.01	RCHRES 350	1	
IMPLND 91		4.81	RCHRES 350	3	
IMPLND 92		18.47	RCHRES 350	3	
IMPLND 93		1.4	RCHRES 350	3	
IMPLND 94		3.89	RCHRES 350	3	
Sub Basin 360	***				
<-Source->		<--Area-->	<-Target->	MBLK	***
PERLND 211		81.54	RCHRES 360	1	
PERLND 214		45.68	RCHRES 360	1	
PERLND 221		69.99	RCHRES 360	1	
PERLND 241		161.39	RCHRES 360	1	
PERLND 251		151.79	RCHRES 360	1	
PERLND 252		105.84	RCHRES 360	1	
PERLND 231		88.56	RCHRES 360	1	
IMPLND 291		12.65	RCHRES 360	3	
IMPLND 292		103.95	RCHRES 360	3	
IMPLND 293		19.41	RCHRES 360	3	
IMPLND 294		30.69	RCHRES 360	3	
***PANTHER CREEK					
RCHRES 350			RCHRES 360	6	
Sub Basin 370	***				
<-Source->		<--Area-->	<-Target->	MBLK	***
PERLND 241		4.16	RCHRES 370	1	
PERLND 251		5.59	RCHRES 370	1	
PERLND 252		8.26	RCHRES 370	1	
PERLND 253		4.89	RCHRES 370	1	
PERLND 262		6.07	RCHRES 370	1	
PERLND 231		4.76	RCHRES 370	1	

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IMPLND 291		0.33	RCHRES 370	3	
IMPLND 292		10.67	RCHRES 370	3	
IMPLND 293		4.53	RCHRES 370	3	
IMPLND 294		6.23	RCHRES 370	3	
Sub Basin 390	***				
<-Source->		<--Area-->	<-Target->	MBLK	***
PERLND 211		104.94	RCHRES 390	1	
PERLND 241		53.68	RCHRES 390	1	
PERLND 242		147.02	RCHRES 390	1	
PERLND 251		74.84	RCHRES 390	1	
PERLND 252		145.04	RCHRES 390	1	
PERLND 231		90.68	RCHRES 390	1	
PERLND 275		66.84	RCHRES 390	1	
PERLND 344		103.54	RCHRES 390	1	
IMPLND 291		15.52	RCHRES 390	3	
IMPLND 292		121.92	RCHRES 390	3	
IMPLND 293		24.1	RCHRES 390	3	
IMPLND 294		58.11	RCHRES 390	3	
Sub Basin 380	***				
<-Source->		<--Area-->	<-Target->	MBLK	***
PERLND 211		75.78	RCHRES 380	1	
PERLND 242		74.82	RCHRES 380	1	
PERLND 252		93.03	RCHRES 380	1	
PERLND 231		36.11	RCHRES 380	1	
PERLND 281		31.67	RCHRES 380	1	
PERLND 284		24.44	RCHRES 380	1	
PERLND 251		45.85	RCHRES 380	1	
PERLND 231		25.85	RCHRES 380	1	
IMPLND 291		7.74	RCHRES 380	3	
IMPLND 292		40.75	RCHRES 380	3	
IMPLND 293		3.03	RCHRES 380	3	
IMPLND 294		12.05	RCHRES 380	3	
RCHRES 360			RCHRES 380	6	
RCHRES 370			RCHRES 380	8	
RCHRES 390			RCHRES 380	6	
Sub Basin 320	***				
<-Source->		<--Area-->	<-Target->	MBLK	***
PERLND 251		14.84	RCHRES 320	2	
PERLND 271		57.44	RCHRES 320	2	
PERLND 272		29.89	RCHRES 320	2	
PERLND 274		41.06	RCHRES 320	2	
PERLND 275		28.95	RCHRES 320	2	
PERLND 281		21.15	RCHRES 320	2	
PERLND 282		22.23	RCHRES 320	2	
PERLND 284		17.1	RCHRES 320	2	
IMPLND 291		3.02	RCHRES 320	3	
IMPLND 292		20.13	RCHRES 320	3	
IMPLND 293		3.93	RCHRES 320	3	
IMPLND 294		10.06	RCHRES 320	3	
Sub Basin 400	***				
<-Source->		<--Area-->	<-Target->	MBLK	***
PERLND 275		22.83	RCHRES 400	2	
PERLND 282		21.67	RCHRES 400	2	
PERLND 285		43.21	RCHRES 400	2	
PERLND 286		17.25	RCHRES 400	2	
IMPLND 291		0.16	RCHRES 400	3	
IMPLND 292		43.33	RCHRES 400	3	
IMPLND 293		19.59	RCHRES 400	3	
IMPLND 294		23.25	RCHRES 400	3	
***south panther creek crossing of 167					
***high flows to panther creek wetland					
RCHRES 370			RCHRES 400	7	
Sub Basin 420	***				
<-Source->		<--Area-->	<-Target->	MBLK	***
PERLND 281		18.07	RCHRES 420	2	
PERLND 282		10.98	RCHRES 420	2	
PERLND 284		8.41	RCHRES 420	2	
IMPLND 291		0.19	RCHRES 420	3	
IMPLND 292		0.12	RCHRES 420	3	
IMPLND 294		0.53	RCHRES 420	3	
RCHRES 400			RCHRES 420	6	
RCHRES 310			RCHRES 420	6	
RCHRES 320			RCHRES 420	6	
Sub Basin 430	***				
<-Source->		<--Area-->	<-Target->	MBLK	***
PERLND 274		5.31	RCHRES 430	2	

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PERLND 275		3.28	RCHRES 430	2	
PERLND 276		2.34	RCHRES 430	2	
PERLND 281		5.48	RCHRES 430	2	
PERLND 284		3.87	RCHRES 430	2	
PERLND 285		1.8	RCHRES 430	2	
PERLND 286		2.09	RCHRES 430	2	
IMPLND 291		0.31	RCHRES 430	3	
IMPLND 292		3.5	RCHRES 430	3	
IMPLND 293		2.21	RCHRES 430	3	
IMPLND 294		2.21	RCHRES 430	3	
RCHRES 420	***		RCHRES 325	6	
RCHRES 420			RCHRES 430	6	
Sub Basin 330	***				
<-Source->		<--Area-->	<-Target->	MBLK	***
PERLND 241		10.19	RCHRES 330	2	
PERLND 274		21.1	RCHRES 330	2	
PERLND 275		24.33	RCHRES 330	2	
PERLND 276		6.06	RCHRES 330	2	
PERLND 273		11.91	RCHRES 330	2	
IMPLND 291		1.6	RCHRES 330	3	
IMPLND 292		16.55	RCHRES 330	3	
IMPLND 293		4.42	RCHRES 330	3	
IMPLND 294		11.95	RCHRES 330	3	
Sub Basin 340	***				
<-Source->		<--Area-->	<-Target->	MBLK	***
PERLND 251		13.7	RCHRES 340	2	
PERLND 272		30.76	RCHRES 340	2	
PERLND 274		32.7	RCHRES 340	2	
PERLND 275		44.84	RCHRES 340	2	
PERLND 273		12.93	RCHRES 340	2	
IMPLND 291		1.99	RCHRES 340	3	
IMPLND 292		25.03	RCHRES 340	3	
IMPLND 293		6.21	RCHRES 340	3	
IMPLND 294		4.94	RCHRES 340	3	
RCHRES 325	***		RCHRES 430	6	
RCHRES 330			RCHRES 340	6	
Sub Basin 410	***				
<-Source->		<--Area-->	<-Target->	MBLK	***
PERLND 274		29.9	RCHRES 410	2	
PERLND 281		16.56	RCHRES 410	2	
PERLND 282		15.61	RCHRES 410	2	
PERLND 284		20.59	RCHRES 410	2	
PERLND 285		48.7	RCHRES 410	2	
PERLND 286		21.21	RCHRES 410	2	
IMPLND 291		1.16	RCHRES 410	3	
IMPLND 292		39.08	RCHRES 410	3	
IMPLND 293		17.14	RCHRES 410	3	
IMPLND 294		23.47	RCHRES 410	3	
Sub Basin 460	***				
<-Source->		<--Area-->	<-Target->	MBLK	***
PERLND 271		2.55	RCHRES 460	2	
PERLND 272		3.69	RCHRES 460	2	
PERLND 274		9.44	RCHRES 460	2	
PERLND 273		1.87	RCHRES 460	2	
PERLND 281		3.35	RCHRES 460	2	
PERLND 284		5.47	RCHRES 460	2	
IMPLND 291		0.39	RCHRES 460	3	
IMPLND 292		0.12	RCHRES 460	3	
RCHRES 340			RCHRES 460	6	
RCHRES 410			RCHRES 460	6	
RCHRES 430			RCHRES 460	6	
Sub Basin 440	***				
<-Source->		<--Area-->	<-Target->	MBLK	***
PERLND 272		3.86	RCHRES 440	2	
PERLND 275		17.26	RCHRES 440	2	
PERLND 276		4.04	RCHRES 440	2	
PERLND 284		5.65	RCHRES 440	2	
PERLND 283		5.2	RCHRES 440	2	
IMPLND 291		0.39	RCHRES 440	3	
IMPLND 292		10.84	RCHRES 440	3	
IMPLND 293		0.76	RCHRES 440	3	
IMPLND 294		19.14	RCHRES 440	3	
Sub Basin 450	***				
<-Source->		<--Area-->	<-Target->	MBLK	***
PERLND 274		3.81	RCHRES 440	2	
PERLND 275		9.1	RCHRES 440	2	

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PERLND 276	3.7	RCHRES 440	2
PERLND 284	3.54	RCHRES 440	2
PERLND 285	7.84	RCHRES 440	2
IMPLND 291	0.17	RCHRES 440	3
IMPLND 292	10.01	RCHRES 440	3
IMPLND 293	4.01	RCHRES 440	3
IMPLND 294	0.82	RCHRES 440	3
RCHRES 380		RCHRES 440	6
Sub Basin 470	***		
<-Source->	<--Area-->	<-Target->	MBLK ***
PERLND 271	11.46	RCHRES 470	2
PERLND 274	15.74	RCHRES 470	2
PERLND 275	33.21	RCHRES 470	2
PERLND 276	9.53	RCHRES 470	2
PERLND 273	8.41	RCHRES 470	2
IMPLND 291	1.2	RCHRES 470	3
IMPLND 292	20.34	RCHRES 470	3
IMPLND 293	5.52	RCHRES 470	3
IMPLND 294	22.74	RCHRES 470	3
RCHRES 440		RCHRES 470	6
RCHRES 460		RCHRES 470	6
Sub Basin 480	***		
<-Source->	<--Area-->	<-Target->	MBLK ***
PERLND 241	5.73	RCHRES 480	1
PERLND 251	50.06	RCHRES 480	1
PERLND 261	7.58	RCHRES 480	1
IMPLND 291	0.3	RCHRES 480	3
IMPLND 292	23.86	RCHRES 480	3
IMPLND 293	5.42	RCHRES 480	3
IMPLND 294	12.32	RCHRES 480	3
Sub Basin 490	***		
<-Source->	<--Area-->	<-Target->	MBLK ***
PERLND 251	29.45	RCHRES 490	1
PERLND 275	32.48	RCHRES 490	1
PERLND 276	20.39	RCHRES 490	1
PERLND 341	24.12	RCHRES 490	1
PERLND 351	35.02	RCHRES 490	1
IMPLND 291	1.02	RCHRES 490	3
IMPLND 292	49.75	RCHRES 490	3
IMPLND 293	25.03	RCHRES 490	3
IMPLND 294	26.28	RCHRES 490	3
RCHRES 480		RCHRES 490	6
Sub Basin 500	***		
<-Source->	<--Area-->	<-Target->	MBLK ***
PERLND 274	8.48	RCHRES 500	1
PERLND 275	25.53	RCHRES 500	1
PERLND 276	9.35	RCHRES 500	1
PERLND 273	7.21	RCHRES 500	1
IMPLND 291	0.52	RCHRES 500	3
IMPLND 292	17.31	RCHRES 500	3
IMPLND 293	8.45	RCHRES 500	3
IMPLND 294	2.5	RCHRES 500	3
RCHRES 490		RCHRES 500	6
Sub Basin 510	***		
<-Source->	<--Area-->	<-Target->	MBLK ***
PERLND 241	85.66	RCHRES 510	1
PERLND 271	65.33	RCHRES 510	1
PERLND 274	111.26	RCHRES 510	1
PERLND 275	119.48	RCHRES 510	1
PERLND 341	66.76	RCHRES 510	1
PERLND 351	62.83	RCHRES 510	1
PERLND 331	46.39	RCHRES 510	1
IMPLND 291	8.38	RCHRES 510	3
IMPLND 292	115.46	RCHRES 510	3
IMPLND 293	24.75	RCHRES 510	3
IMPLND 294	37.2	RCHRES 510	3
RCHRES 470		RCHRES 510	6
RCHRES 500		RCHRES 510	6
Sub Basin 520	***		
<-Source->	<--Area-->	<-Target->	MBLK ***
PERLND 241	1.59	RCHRES 520	1
PERLND 251	2.65	RCHRES 520	1
PERLND 274	6.6	RCHRES 520	1
PERLND 275	3.88	RCHRES 520	1
PERLND 276	2.18	RCHRES 520	1
PERLND 273	3.56	RCHRES 520	1

Black/Springbrook UCI File

IMPLND 291	0.52	RCHRES 520	3
IMPLND 292	3.1	RCHRES 520	3
IMPLND 293	1.84	RCHRES 520	3
IMPLND 294	2.3	RCHRES 520	3
RCHRES 510		RCHRES 520	6
*** HSPEXP Operations			
PERLND 11	196.51	COPY 1	90
PERLND 21	109.5	COPY 1	90
PERLND 42	157.95	COPY 1	90
PERLND 51	308.06	COPY 1	90
PERLND 52	68.03	COPY 1	90
PERLND 53	41.24	COPY 1	90
PERLND 31	198.01	COPY 1	90
PERLND 74	23.55	COPY 1	90
PERLND 75	27.02	COPY 1	90
IMPLND 91	29.59	COPY 1	91
IMPLND 92	199.95	COPY 1	91
IMPLND 93	34.99	COPY 1	91
IMPLND 94	82.79	COPY 1	91
PERLND 13	11.16	COPY 1	90
PERLND 14	14.89	COPY 1	90
PERLND 41	189.51	COPY 1	90
PERLND 43	9.31	COPY 1	90
PERLND 44	11.28	COPY 1	90
PERLND 22	34.96	COPY 1	90
PERLND 85	18.98	COPY 1	90
PERLND 61	23.55	COPY 1	90
PERLND 51	491.89	COPY 2	90
PERLND 72	31.32	COPY 2	90
PERLND 74	107.14	COPY 2	90
PERLND 75	236.01	COPY 2	90
PERLND 76	39.13	COPY 2	90
IMPLND 91	35.65	COPY 2	91
IMPLND 92	422.16	COPY 2	91
IMPLND 93	97.46	COPY 2	91
IMPLND 94	151.98	COPY 2	91
PERLND 41	247.51	COPY 2	90
PERLND 11	196.51	COPY 2	90
PERLND 21	109.5	COPY 2	90
PERLND 42	157.95	COPY 2	90
PERLND 52	68.03	COPY 2	90
PERLND 53	41.24	COPY 2	90
PERLND 31	198.01	COPY 2	90
PERLND 13	11.16	COPY 2	90
PERLND 14	14.89	COPY 2	90
PERLND 43	9.31	COPY 2	90
PERLND 44	11.28	COPY 2	90
PERLND 22	34.96	COPY 2	90
PERLND 85	18.98	COPY 2	90
PERLND 61	23.55	COPY 2	90
PERLND 251	85.46	COPY 3	90
IMPLND 291	35.67	COPY 3	91
IMPLND 292	660.19	COPY 3	91
IMPLND 293	346.84	COPY 3	91
IMPLND 294	158.83	COPY 3	91
PERLND 274	205.65	COPY 3	90
PERLND 275	412.32	COPY 3	90
PERLND 276	204.83	COPY 3	90
PERLND 51	983.78	COPY 3	90
PERLND 72	62.64	COPY 3	90
PERLND 74	214.28	COPY 3	90
PERLND 75	472.02	COPY 3	90
PERLND 76	78.26	COPY 3	90
IMPLND 91	71.3	COPY 3	91
IMPLND 92	844.32	COPY 3	91
IMPLND 93	194.92	COPY 3	91
IMPLND 94	303.96	COPY 3	91
PERLND 41	495.02	COPY 3	90
PERLND 11	393.02	COPY 3	90
PERLND 21	219	COPY 3	90
PERLND 42	315.9	COPY 3	90
PERLND 52	136.06	COPY 3	90
PERLND 53	82.48	COPY 3	90
PERLND 31	396.02	COPY 3	90
PERLND 13	22.32	COPY 3	90
PERLND 14	29.78	COPY 3	90

Black/Springbrook UCI File

PERLND	43	18.62	COPY	3	90
PERLND	44	22.56	COPY	3	90
PERLND	22	69.92	COPY	3	90
PERLND	85	37.96	COPY	3	90
PERLND	61	47.1	COPY	3	90
PERLND	211	236.45	COPY	4	90
PERLND	241	512.62	COPY	4	90
PERLND	251	609.34	COPY	4	90
PERLND	274	207.53	COPY	4	90
PERLND	275	291.89	COPY	4	90
PERLND	276	115.61	COPY	4	90
PERLND	273	86.23	COPY	4	90
IMPLND	291	51.19	COPY	4	91
IMPLND	292	524.66	COPY	4	91
IMPLND	293	130.35	COPY	4	91
IMPLND	294	130.67	COPY	4	91
PERLND	213	7.99	COPY	4	90
PERLND	214	70.64	COPY	4	90
PERLND	242	32.27	COPY	4	90
PERLND	243	9.45	COPY	4	90
PERLND	244	8.35	COPY	4	90
PERLND	231	280.64	COPY	4	90
PERLND	221	209.6	COPY	4	90
PERLND	252	273.39	COPY	4	90
PERLND	271	81.18	COPY	4	90
PERLND	11	21.55	COPY	4	90
PERLND	21	68.31	COPY	4	90
PERLND	41	64.33	COPY	4	90
PERLND	51	46.06	COPY	4	90
PERLND	31	41.44	COPY	4	90
IMPLND	91	5.37	COPY	4	91
IMPLND	92	19.33	COPY	4	91
IMPLND	93	1.39	COPY	4	91
IMPLND	94	8.98	COPY	4	91
PERLND	22	8.97	COPY	4	90
PERLND	42	5.3	COPY	4	90
PERLND	272	383.14	COPY	5	90
PERLND	274	1173.55	COPY	5	90
PERLND	275	1645.34	COPY	5	90
PERLND	273	315.53	COPY	5	90
PERLND	271	243.96	COPY	5	90
PERLND	276	600.81	COPY	5	90
IMPLND	291	139.18	COPY	5	91
IMPLND	292	1742.91	COPY	5	91
IMPLND	293	648.09	COPY	5	91
IMPLND	294	559.68	COPY	5	91
PERLND	284	94.86	COPY	5	90
PERLND	283	5.2	COPY	5	90
PERLND	285	109.37	COPY	5	90
PERLND	281	96.28	COPY	5	90
PERLND	211	498.71	COPY	5	90
PERLND	242	254.11	COPY	5	90
PERLND	252	633.82	COPY	5	90
PERLND	231	531.36	COPY	5	90
PERLND	251	1007	COPY	5	90
PERLND	282	70.49	COPY	5	90
PERLND	286	40.55	COPY	5	90
PERLND	214	116.32	COPY	5	90
PERLND	221	279.59	COPY	5	90
PERLND	241	795.81	COPY	5	90
PERLND	253	9.78	COPY	5	90
PERLND	262	12.14	COPY	5	90
PERLND	344	103.54	COPY	5	90
PERLND	11	448.73	COPY	5	90
PERLND	21	316	COPY	5	90
PERLND	41	602	COPY	5	90
PERLND	51	1069.51	COPY	5	90
PERLND	31	460.16	COPY	5	90
PERLND	81	29.89	COPY	5	90
PERLND	82	13.72	COPY	5	90
PERLND	84	32.01	COPY	5	90
IMPLND	91	81.48	COPY	5	91
IMPLND	92	882.12	COPY	5	91
IMPLND	93	197.71	COPY	5	91
IMPLND	94	316.83	COPY	5	91
PERLND	213	7.99	COPY	5	90

```

PERLND 243          9.45    COPY    5    90
PERLND 244          8.35    COPY    5    90
PERLND 72          62.64   COPY    5    90
PERLND 74          214.28  COPY    5    90
PERLND 75          472.02   COPY    5    90
PERLND 76          78.26    COPY    5    90
PERLND 22          78.89    COPY    5    90
PERLND 42          321.2    COPY    5    90
PERLND 52          136.06   COPY    5    90
PERLND 53          82.48    COPY    5    90
PERLND 13          22.32    COPY    5    90
PERLND 14          29.78    COPY    5    90
PERLND 43          18.62    COPY    5    90
PERLND 44          22.56    COPY    5    90
PERLND 85          37.96    COPY    5    90
PERLND 61          47.1     COPY    5    90
END SCHEMATIC

```

EXT TARGETS

```

<-Volume-> <-Grp> <-Member-><--Mult-->Tran <-Volume-> <Member> Tsys Tgap Amd ***
<Name> # <Name> # #<-factor->strg <Name> # <Name> tem strg strg***
*** Writing out Hourly Water Temperature from Soil Layers (Deg F)
*** For Deg C change ENGL to METR
PERLND 75 PWATER SURO          WDM2 6001 SURO          ENGL          REPL
PERLND 75 PWATER IFWO          WDM2 6002 IFWO          ENGL          REPL
PERLND 75 PWATER AGWO          WDM2 6003 AGWO          ENGL          REPL

```

***Splitter Output to Upper/Lower Mill Pond

```

RCHRES 5 HYDR O 1 1 *** AVER WDM2 5001 FLOW ENGL REPL
RCHRES 5 HYDR O 2 1 *** AVER WDM2 5002 FLOW ENGL REPL
RCHRES 10 HYDR VOL 1 1 *** AVER WDM2 5003 VOLX ENGL REPL
RCHRES 40 HYDR VOL 1 1 *** AVER WDM2 5004 VOLX ENGL REPL

```

***UPSTREAM OF THE Mill Creek diversion

```

RCHRES 80 HYDR RO 1 1 WDM2 1100 FLOW ENGL AGGR REPL
RCHRES 80 CONS CON 1 WDM2 1101 ALKN ENGL AGGR REPL
RCHRES 80 HTRCH TW 1 WDM2 1102 WTEM METR AGGR REPL
RCHRES 80 SEDTRN SSED 1 WDM2 1103 SAND ENGL AGGR REPL
RCHRES 80 SEDTRN SSED 2 WDM2 1104 SILT ENGL AGGR REPL
RCHRES 80 SEDTRN SSED 3 WDM2 1105 CLAY ENGL AGGR REPL
RCHRES 80 SEDTRN SSED 4 WDM2 1106 SSED ENGL AGGR REPL
RCHRES 80 GQUAL DQAL 1 WDM2 1107 SLCA ENGL AGGR REPL
*** following factor of 0.1 converts from #cfu/l to #cfu/100ml
RCHRES 80 GQUAL DQAL 2 0.1 WDM2 1108 ECOL ENGL AGGR REPL
RCHRES 80 OXRX DOX WDM2 1109 DOXX ENGL AGGR REPL
RCHRES 80 OXRX BOD WDM2 1110 BODX ENGL AGGR REPL
RCHRES 80 NUTRX DNUST 1 WDM2 1111 NO3X ENGL AGGR REPL
RCHRES 80 NUTRX DNUST 2 WDM2 1112 NH3X ENGL AGGR REPL
RCHRES 80 NUTRX DNUST 4 WDM2 1113 PO4X ENGL AGGR REPL
RCHRES 80 PLANK BALCLA 1 WDM2 1114 BALG ENGL AGGR REPL
RCHRES 80 PLANK PKST3 4 WDM2 1115 ORGN ENGL AGGR REPL
RCHRES 80 PLANK PKST3 5 WDM2 1116 ORGP ENGL AGGR REPL
RCHRES 80 PLANK PKST3 6 WDM2 1117 ORGC ENGL AGGR REPL
RCHRES 80 PLANK PKST4 1 WDM2 1118 TNXX ENGL AGGR REPL
RCHRES 80 PLANK PKST4 2 WDM2 1119 TPXX ENGL AGGR REPL
RCHRES 80 PHCARB PHST 1 WDM2 1120 TICX ENGL AGGR REPL
RCHRES 80 PHCARB PHST 3 WDM2 1121 PHXX ENGL AGGR REPL
RCHRES 80 GQUAL DQAL 3 WDM2 1122 CUDX ENGL AGGR REPL
*** following factor of 0.1 converts from #cfu/l to #cfu/100ml
RCHRES 80 GQUAL DQAL 4 0.1 WDM2 1123 FCOL ENGL AGGR REPL
GENER 80 OUTPUT TIMSER AVER WDM2 1124 TCUX ENGL AGGR REPL

```

*** ExpSysStats

```

RCHRES 80 ROFLOW ROVOL 1 1 4.669e-3SUM WDM2 1131 SIMQ 1 ENGL AGGR REPL
COPY 2 OUTPUT MEAN 1 1 3.891e-4SUM WDM2 1132 SURO 1 ENGL AGGR REPL
COPY 2 OUTPUT MEAN 2 1 3.891e-4SUM WDM2 1133 IFWO 1 ENGL AGGR REPL
COPY 2 OUTPUT MEAN 3 1 3.891e-4SUM WDM2 1134 AGWO 1 ENGL AGGR REPL
COPY 2 OUTPUT MEAN 4 1 3.891e-4SUM WDM2 1135 PETX 1 ENGL AGGR REPL
COPY 2 OUTPUT MEAN 5 1 3.891e-4SUM WDM2 1136 SAET 1 ENGL AGGR REPL
COPY 2 OUTPUT MEAN 6 1 3.891e-4AVER WDM2 1137 UZSX 1 ENGL AGGR REPL
COPY 2 OUTPUT MEAN 7 1 3.891e-4AVER WDM2 1138 LZSX 1 ENGL AGGR REPL

```

***Mill Creek near confluence with Springbrook

```

RCHRES 160 HYDR RO 1 1 WDM2 1200 FLOW ENGL REPL
RCHRES 160 CONS CON 1 WDM2 1201 ALKN ENGL AGGR REPL
RCHRES 160 HTRCH TW 1 WDM2 1202 WTEM METR AGGR REPL
RCHRES 160 SEDTRN SSED 1 WDM2 1203 SAND ENGL AGGR REPL

```

Black/Springbrook UCI File

```

RCHRES 160 SEDTRN SSED 2 WDM2 1204 SILT ENGL AGGR REPL
RCHRES 160 SEDTRN SSED 3 WDM2 1205 CLAY ENGL AGGR REPL
RCHRES 160 SEDTRN SSED 4 WDM2 1206 SSED ENGL AGGR REPL
RCHRES 160 GQUAL DQAL 1 WDM2 1207 SLCA ENGL AGGR REPL
*** following factor of 0.1 converts from #cfu/l to #cfu/100ml
RCHRES 160 GQUAL DQAL 2 0.1 WDM2 1208 ECOL ENGL AGGR REPL
RCHRES 160 OXRX DOX WDM2 1209 DOXX ENGL AGGR REPL
RCHRES 160 OXRX BOD WDM2 1210 BODX ENGL AGGR REPL
RCHRES 160 NUTRX DNUST 1 WDM2 1211 NO3X ENGL AGGR REPL
RCHRES 160 NUTRX DNUST 2 WDM2 1212 NH3X ENGL AGGR REPL
RCHRES 160 NUTRX DNUST 4 WDM2 1213 PO4X ENGL AGGR REPL
RCHRES 160 PLANK BALCLA 1 WDM2 1214 BALG ENGL AGGR REPL
RCHRES 160 PLANK PKST3 4 WDM2 1215 ORGN ENGL AGGR REPL
RCHRES 160 PLANK PKST3 5 WDM2 1216 ORGP ENGL AGGR REPL
RCHRES 160 PLANK PKST3 6 WDM2 1217 ORGC ENGL AGGR REPL
RCHRES 160 PLANK PKST4 1 WDM2 1218 TNXX ENGL AGGR REPL
RCHRES 160 PLANK PKST4 2 WDM2 1219 TPXX ENGL AGGR REPL
RCHRES 160 PHCARB PHST 1 WDM2 1220 TICX ENGL AGGR REPL
RCHRES 160 PHCARB PHST 3 WDM2 1221 PHXX ENGL AGGR REPL
RCHRES 160 GQUAL DQAL 3 WDM2 1222 CUDX ENGL AGGR REPL
*** following factor of 0.1 converts from #cfu/l to #cfu/100ml
RCHRES 160 GQUAL DQAL 4 0.1 WDM2 1223 FCOL ENGL AGGR REPL
GENER 160 OUTPUT TIMSER AVER WDM2 1224 TCUX ENGL AGGR REPL
*** ExpSysStats
RCHRES 160 ROFLOW ROVOL 1 1 1.840e-3SUM WDM2 1231 SIMQ 1 ENGL AGGR REPL
COPY 3 OUTPUT MEAN 1 1 1.533e-4SUM WDM2 1232 SURO 1 ENGL AGGR REPL
COPY 3 OUTPUT MEAN 2 1 1.533e-4SUM WDM2 1233 IFWO 1 ENGL AGGR REPL
COPY 3 OUTPUT MEAN 3 1 1.533e-4SUM WDM2 1234 AGWO 1 ENGL AGGR REPL
COPY 3 OUTPUT MEAN 4 1 1.533e-4SUM WDM2 1235 PETX 1 ENGL AGGR REPL
COPY 3 OUTPUT MEAN 5 1 1.533e-4SUM WDM2 1236 SAET 1 ENGL AGGR REPL
COPY 3 OUTPUT MEAN 6 1 1.533e-4AVER WDM2 1237 UZSX 1 ENGL AGGR REPL
COPY 3 OUTPUT MEAN 7 1 1.533e-4AVER WDM2 1238 LZSX 1 ENGL AGGR REPL

***Springbrook/black AT ORILLA
RCHRES 260 HYDR RO 1 1 WDM2 1300 FLOW *** ENGL REPL
RCHRES 260 CONS CON 1 WDM2 1301 ALKN *** ENGL AGGR REPL
RCHRES 260 HTRCH TW 1 WDM2 1302 WTEM *** METR AGGR REPL
RCHRES 260 SEDTRN SSED 1 WDM2 1303 SAND *** ENGL AGGR REPL
RCHRES 260 SEDTRN SSED 2 WDM2 1304 SILT *** ENGL AGGR REPL
RCHRES 260 SEDTRN SSED 3 WDM2 1305 CLAY *** ENGL AGGR REPL
RCHRES 260 SEDTRN SSED 4 WDM2 1306 SSED *** ENGL AGGR REPL
RCHRES 260 GQUAL DQAL 1 WDM2 1307 SLCA *** ENGL AGGR REPL
*** factor of 0.1 converts from #cfu/l to #cfu/100ml ***
RCHRES 260 GQUAL DQAL 2 0.1 WDM2 1308 ECOL *** ENGL AGGR REPL
RCHRES 260 OXRX DOX WDM2 1309 DOXX *** ENGL AGGR REPL
RCHRES 260 OXRX BOD WDM2 1310 BODX *** ENGL AGGR REPL
RCHRES 260 NUTRX DNUST 1 WDM2 1311 NO3X *** ENGL AGGR REPL
RCHRES 260 NUTRX DNUST 2 WDM2 1312 NH3X *** ENGL AGGR REPL
RCHRES 260 NUTRX DNUST 4 WDM2 1313 PO4X *** ENGL AGGR REPL
RCHRES 260 PLANK BALCLA 1 WDM2 1314 BALG *** ENGL AGGR REPL
RCHRES 260 PLANK PKST3 4 WDM2 1315 ORGN *** ENGL AGGR REPL
RCHRES 260 PLANK PKST3 5 WDM2 1316 ORGP *** ENGL AGGR REPL
RCHRES 260 PLANK PKST3 6 WDM2 1317 ORGC *** ENGL AGGR REPL
RCHRES 260 PLANK PKST4 1 WDM2 1318 TNXX *** ENGL AGGR REPL
RCHRES 260 PLANK PKST4 2 WDM2 1319 TPXX *** ENGL AGGR REPL
RCHRES 260 PHCARB PHST 1 WDM2 1320 TICX *** ENGL AGGR REPL
RCHRES 260 PHCARB PHST 3 WDM2 1321 PHXX *** ENGL AGGR REPL
RCHRES 260 GQUAL DQAL 3 WDM2 1322 CUDX *** ENGL AGGR REPL
*** factor of 0.1 converts from #cfu/l to #cfu/100ml ***
RCHRES 260 GQUAL DQAL 4 0.1 WDM2 1323 FCOL *** ENGL AGGR REPL
GENER 260 OUTPUT TIMSER AVER WDM2 1324 TCUX *** ENGL AGGR REPL
*** ExpSysStats
RCHRES 260 ROFLOW ROVOL 1 1 1.123e-3SUM WDM2 1331 SIMQ 1 ENGL AGGR REPL
COPY 4 OUTPUT MEAN 1 1 9.361e-5SUM WDM2 1332 SURO 1 ENGL AGGR REPL
COPY 4 OUTPUT MEAN 2 1 9.361e-5SUM WDM2 1333 IFWO 1 ENGL AGGR REPL
COPY 4 OUTPUT MEAN 3 1 9.361e-5SUM WDM2 1334 AGWO 1 ENGL AGGR REPL
COPY 4 OUTPUT MEAN 4 1 9.361e-5SUM WDM2 1335 PETX 1 ENGL AGGR REPL
COPY 4 OUTPUT MEAN 5 1 9.361e-5SUM WDM2 1336 SAET 1 ENGL AGGR REPL
COPY 4 OUTPUT MEAN 6 1 9.361e-5AVER WDM2 1337 UZSX 1 ENGL AGGR REPL
COPY 4 OUTPUT MEAN 7 1 9.361e-5AVER WDM2 1338 LZSX 1 ENGL AGGR REPL

*** PANTHER CREEK
RCHRES 360 HYDR RO 1 1 WDM2 1400 FLOW ENGL REPL
RCHRES 360 CONS CON 1 WDM2 1401 ALKN ENGL AGGR REPL
RCHRES 360 HTRCH TW 1 WDM2 1402 WTEM METR AGGR REPL
RCHRES 360 SEDTRN SSED 1 WDM2 1403 SAND ENGL AGGR REPL

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Black/Springbrook UCI File

```

RCHRES 360 SEDTRN SSED 2 WDM2 1404 SILT ENGL AGGR REPL
RCHRES 360 SEDTRN SSED 3 WDM2 1405 CLAY ENGL AGGR REPL
RCHRES 360 SEDTRN SSED 4 WDM2 1406 SSED ENGL AGGR REPL
RCHRES 360 GQUAL DQAL 1 WDM2 1407 SLCA ENGL AGGR REPL
*** following factor of 0.1 converts from #cfu/l to #cfu/100ml
RCHRES 360 GQUAL DQAL 2 0.1 WDM2 1408 ECOL ENGL AGGR REPL
RCHRES 360 OXRX DOX WDM2 1409 DOXX ENGL AGGR REPL
RCHRES 360 OXRX BOD WDM2 1410 BODX ENGL AGGR REPL
RCHRES 360 NUTRX DNUST 1 WDM2 1411 NO3X ENGL AGGR REPL
RCHRES 360 NUTRX DNUST 2 WDM2 1412 NH3X ENGL AGGR REPL
RCHRES 360 NUTRX DNUST 4 WDM2 1413 PO4X ENGL AGGR REPL
RCHRES 360 PLANK BALCLA 1 WDM2 1414 BALG ENGL AGGR REPL
RCHRES 360 PLANK PKST3 4 WDM2 1415 ORGN ENGL AGGR REPL
RCHRES 360 PLANK PKST3 5 WDM2 1416 ORGP ENGL AGGR REPL
RCHRES 360 PLANK PKST3 6 WDM2 1417 ORGC ENGL AGGR REPL
RCHRES 360 PLANK PKST4 1 WDM2 1418 TNXX ENGL AGGR REPL
RCHRES 360 PLANK PKST4 2 WDM2 1419 TPXX ENGL AGGR REPL
RCHRES 360 PHCARB PHST 1 WDM2 1420 TICX ENGL AGGR REPL
RCHRES 360 PHCARB PHST 3 WDM2 1421 PHXX ENGL AGGR REPL
RCHRES 360 GQUAL DQAL 3 WDM2 1422 CUDX ENGL AGGR REPL
*** following factor of 0.1 converts from #cfu/l to #cfu/100ml
RCHRES 360 GQUAL DQAL 4 0.1 WDM2 1423 FCOL ENGL AGGR REPL
GENER 360 OUTPUT TIMSER AVER WDM2 1424 TCUX ENGL AGGR REPL

***Springbrook/black u/s of 405
RCHRES 470 HYDR RO 1 1 WDM2 1600 FLOW ENGL REPL
RCHRES 470 CONS CON 1 WDM2 1601 ALKN ENGL AGGR REPL
RCHRES 470 HTRCH TW 1 WDM2 1602 WTEM METR AGGR REPL
RCHRES 470 SEDTRN SSED 1 WDM2 1603 SAND ENGL AGGR REPL
RCHRES 470 SEDTRN SSED 2 WDM2 1604 SILT ENGL AGGR REPL
RCHRES 470 SEDTRN SSED 3 WDM2 1605 CLAY ENGL AGGR REPL
RCHRES 470 SEDTRN SSED 4 WDM2 1606 SSED ENGL AGGR REPL
RCHRES 470 GQUAL DQAL 1 WDM2 1607 SLCA ENGL AGGR REPL
*** following factor of 0.1 converts from #cfu/l to #cfu/100ml
RCHRES 470 GQUAL DQAL 2 0.1 WDM2 1608 ECOL ENGL AGGR REPL
RCHRES 470 OXRX DOX WDM2 1609 DOXX ENGL AGGR REPL
RCHRES 470 OXRX BOD WDM2 1610 BODX ENGL AGGR REPL
RCHRES 470 NUTRX DNUST 1 WDM2 1611 NO3X ENGL AGGR REPL
RCHRES 470 NUTRX DNUST 2 WDM2 1612 NH3X ENGL AGGR REPL
RCHRES 470 NUTRX DNUST 4 WDM2 1613 PO4X ENGL AGGR REPL
RCHRES 470 PLANK BALCLA 1 WDM2 1614 BALG ENGL AGGR REPL
RCHRES 470 PLANK PKST3 4 WDM2 1615 ORGN ENGL AGGR REPL
RCHRES 470 PLANK PKST3 5 WDM2 1616 ORGP ENGL AGGR REPL
RCHRES 470 PLANK PKST3 6 WDM2 1617 ORGC ENGL AGGR REPL
RCHRES 470 PLANK PKST4 1 WDM2 1618 TNXX ENGL AGGR REPL
RCHRES 470 PLANK PKST4 2 WDM2 1619 TPXX ENGL AGGR REPL
RCHRES 470 PHCARB PHST 1 WDM2 1620 TICX ENGL AGGR REPL
RCHRES 470 PHCARB PHST 3 WDM2 1621 PHXX ENGL AGGR REPL
RCHRES 470 GQUAL DQAL 3 WDM2 1622 CUDX ENGL AGGR REPL
*** following factor of 0.1 converts from #cfu/l to #cfu/100ml
RCHRES 470 GQUAL DQAL 4 0.1 WDM2 1623 FCOL ENGL AGGR REPL
GENER 470 OUTPUT TIMSER AVER WDM2 1624 TCUX ENGL AGGR REPL

*** ExpSysStats
RCHRES 470 ROFLOW ROVOL 1 1 7.889e-4SUM WDM2 1631 SIMQ 1 ENGL AGGR REPL
COPY 5 OUTPUT MEAN 1 1 6.574e-5SUM WDM2 1632 SURO 1 ENGL AGGR REPL
COPY 5 OUTPUT MEAN 2 1 6.574e-5SUM WDM2 1633 IFWO 1 ENGL AGGR REPL
COPY 5 OUTPUT MEAN 3 1 6.574e-5SUM WDM2 1634 AGWO 1 ENGL AGGR REPL
COPY 5 OUTPUT MEAN 4 1 6.574e-5SUM WDM2 1635 PETX 1 ENGL AGGR REPL
COPY 5 OUTPUT MEAN 5 1 6.574e-5SUM WDM2 1636 SAET 1 ENGL AGGR REPL
COPY 5 OUTPUT MEAN 6 1 6.574e-5AVER WDM2 1637 UZSX 1 ENGL AGGR REPL
COPY 5 OUTPUT MEAN 7 1 6.574e-5AVER WDM2 1638 LZSX 1 ENGL AGGR REPL

*** RCHRES 510 (Catchment Outlet) results -
RCHRES 510 HYDR RO 1 1 WDM2 1700 FLOW ENGL REPL
RCHRES 510 CONS CON 1 WDM2 1701 ALKN ENGL AGGR REPL
RCHRES 510 HTRCH TW 1 WDM2 1702 WTEM METR AGGR REPL
RCHRES 510 SEDTRN SSED 1 WDM2 1703 SAND ENGL AGGR REPL
RCHRES 510 SEDTRN SSED 2 WDM2 1704 SILT ENGL AGGR REPL
RCHRES 510 SEDTRN SSED 3 WDM2 1705 CLAY ENGL AGGR REPL
RCHRES 510 SEDTRN SSED 4 WDM2 1706 SSED ENGL AGGR REPL
RCHRES 510 GQUAL DQAL 1 WDM2 1707 SLCA ENGL AGGR REPL
*** following factor of 0.1 converts from #cfu/l to #cfu/100ml
RCHRES 510 GQUAL DQAL 2 0.1 WDM2 1708 ECOL ENGL AGGR REPL
RCHRES 510 OXRX DOX WDM2 1709 DOXX ENGL AGGR REPL
RCHRES 510 OXRX BOD WDM2 1710 BODX ENGL AGGR REPL
RCHRES 510 NUTRX DNUST 1 WDM2 1711 NO3X ENGL AGGR REPL

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RCHRES 510 NUTRX  DNUST  2                WDM2  1712 NH3X      ENGL AGGR REPL
RCHRES 510 NUTRX  DNUST  4                WDM2  1713 PO4X      ENGL AGGR REPL
RCHRES 510 PLANK  BALCLA 1                WDM2  1714 BALG      ENGL AGGR REPL
RCHRES 510 PLANK  PKST3  4                WDM2  1715 ORGN      ENGL AGGR REPL
RCHRES 510 PLANK  PKST3  5                WDM2  1716 ORGP      ENGL AGGR REPL
RCHRES 510 PLANK  PKST3  6                WDM2  1717 ORGC      ENGL AGGR REPL
RCHRES 510 PLANK  PKST4  1                WDM2  1718 TNXX      ENGL AGGR REPL
RCHRES 510 PLANK  PKST4  2                WDM2  1719 TPXX      ENGL AGGR REPL
RCHRES 510 PHCARB PHST   1                WDM2  1720 TICX      ENGL AGGR REPL
RCHRES 510 PHCARB PHST   3                WDM2  1721 PHXX      ENGL AGGR REPL
RCHRES 510 GQUAL  DQAL   3                WDM2  1722 CUDX      ENGL AGGR REPL
*** following factor of 0.1 converts from #cfu/1 to #cfu/100ml
RCHRES 510 GQUAL  DQAL   4                0.1    WDM2  1723 FCOL      ENGL AGGR REPL
GENER  510 OUTPUT TIMSER                AVER  WDM2  1724 TCUX      ENGL AGGR REPL

RCHRES  60 HYDR   RO     1 1                WDM2  1800 FLOW      ENGL      REPL
*** ExpSysStats
RCHRES  60 ROFLOW ROVOL  1 1  7.477e-3SUM WDM2  1831 SIMQ      1 ENGL AGGR REPL
COPY   1 OUTPUT MEAN  1 1  6.231e-4SUM WDM2  1832 SURO      1 ENGL AGGR REPL
COPY   1 OUTPUT MEAN  2 1  6.231e-4SUM WDM2  1833 IFWO      1 ENGL AGGR REPL
COPY   1 OUTPUT MEAN  3 1  6.231e-4SUM WDM2  1834 AGWO      1 ENGL AGGR REPL
COPY   1 OUTPUT MEAN  4 1  6.231e-4SUM WDM2  1835 PETX      1 ENGL AGGR REPL
COPY   1 OUTPUT MEAN  5 1  6.231e-4SUM WDM2  1836 SAET      1 ENGL AGGR REPL
COPY   1 OUTPUT MEAN  6 1  6.231e-4AVER WDM2  1837 UZSX      1 ENGL AGGR REPL
COPY   1 OUTPUT MEAN  7 1  6.231e-4AVER WDM2  1838 LZSX      1 ENGL AGGR REPL

*** Write out TAU max vals for each
RCHRES  5 HYDR   TAU                MAX  WDM2  4005 TAUX      ENGL AGGR REPL
RCHRES 10 HYDR   TAU                MAX  WDM2  4010 TAUX      ENGL AGGR REPL
RCHRES 20 HYDR   TAU                MAX  WDM2  4020 TAUX      ENGL AGGR REPL
RCHRES 30 HYDR   TAU                MAX  WDM2  4030 TAUX      ENGL AGGR REPL
RCHRES 40 HYDR   TAU                MAX  WDM2  4040 TAUX      ENGL AGGR REPL
RCHRES 50 HYDR   TAU                MAX  WDM2  4050 TAUX      ENGL AGGR REPL
RCHRES 60 HYDR   TAU                MAX  WDM2  4060 TAUX      ENGL AGGR REPL
RCHRES 70 HYDR   TAU                MAX  WDM2  4070 TAUX      ENGL AGGR REPL
RCHRES 75 HYDR   TAU                MAX  WDM2  4075 TAUX      ENGL AGGR REPL
RCHRES 80 HYDR   TAU                MAX  WDM2  4080 TAUX      ENGL AGGR REPL
RCHRES 85 HYDR   TAU                MAX  WDM2  4085 TAUX      ENGL AGGR REPL
RCHRES 90 HYDR   TAU                MAX  WDM2  4090 TAUX      ENGL AGGR REPL
RCHRES 100 HYDR  TAU                MAX  WDM2  4100 TAUX      ENGL AGGR REPL
RCHRES 110 HYDR  TAU                MAX  WDM2  4110 TAUX      ENGL AGGR REPL
RCHRES 115 HYDR  TAU                MAX  WDM2  4115 TAUX      ENGL AGGR REPL
RCHRES 120 HYDR  TAU                MAX  WDM2  4120 TAUX      ENGL AGGR REPL
RCHRES 150 HYDR  TAU                MAX  WDM2  4150 TAUX      ENGL AGGR REPL
RCHRES 140 HYDR  TAU                MAX  WDM2  4140 TAUX      ENGL AGGR REPL
RCHRES 130 HYDR  TAU                MAX  WDM2  4130 TAUX      ENGL AGGR REPL
RCHRES 160 HYDR  TAU                MAX  WDM2  4160 TAUX      ENGL AGGR REPL
RCHRES 170 HYDR  TAU                MAX  WDM2  4170 TAUX      ENGL AGGR REPL
RCHRES 180 HYDR  TAU                MAX  WDM2  4180 TAUX      ENGL AGGR REPL
RCHRES 190 HYDR  TAU                MAX  WDM2  4190 TAUX      ENGL AGGR REPL
RCHRES 200 HYDR  TAU                MAX  WDM2  4200 TAUX      ENGL AGGR REPL
RCHRES 210 HYDR  TAU                MAX  WDM2  4210 TAUX      ENGL AGGR REPL
RCHRES 220 HYDR  TAU                MAX  WDM2  4220 TAUX      ENGL AGGR REPL
RCHRES 230 HYDR  TAU                MAX  WDM2  4230 TAUX      ENGL AGGR REPL
RCHRES 240 HYDR  TAU                MAX  WDM2  4240 TAUX      ENGL AGGR REPL
RCHRES 250 HYDR  TAU                MAX  WDM2  4250 TAUX      ENGL AGGR REPL
RCHRES 270 HYDR  TAU                MAX  WDM2  4270 TAUX      ENGL AGGR REPL
RCHRES 260 HYDR  TAU                MAX  WDM2  4260 TAUX      ENGL AGGR REPL
RCHRES 280 HYDR  TAU                MAX  WDM2  4280 TAUX      ENGL AGGR REPL
RCHRES 290 HYDR  TAU                MAX  WDM2  4290 TAUX      ENGL AGGR REPL
RCHRES 310 HYDR  TAU                MAX  WDM2  4310 TAUX      ENGL AGGR REPL
RCHRES 350 HYDR  TAU                MAX  WDM2  4350 TAUX      ENGL AGGR REPL
RCHRES 360 HYDR  TAU                MAX  WDM2  4360 TAUX      ENGL AGGR REPL
RCHRES 370 HYDR  TAU                MAX  WDM2  4370 TAUX      ENGL AGGR REPL
RCHRES 390 HYDR  TAU                MAX  WDM2  4390 TAUX      ENGL AGGR REPL
RCHRES 380 HYDR  TAU                MAX  WDM2  4380 TAUX      ENGL AGGR REPL
RCHRES 320 HYDR  TAU                MAX  WDM2  4320 TAUX      ENGL AGGR REPL
RCHRES 400 HYDR  TAU                MAX  WDM2  4400 TAUX      ENGL AGGR REPL
RCHRES 420 HYDR  TAU                MAX  WDM2  4420 TAUX      ENGL AGGR REPL
RCHRES 325 HYDR  TAU                MAX  WDM2  4325 TAUX      ENGL AGGR REPL
RCHRES 430 HYDR  TAU                MAX  WDM2  4430 TAUX      ENGL AGGR REPL
RCHRES 330 HYDR  TAU                MAX  WDM2  4330 TAUX      ENGL AGGR REPL
RCHRES 340 HYDR  TAU                MAX  WDM2  4340 TAUX      ENGL AGGR REPL
RCHRES 410 HYDR  TAU                MAX  WDM2  4410 TAUX      ENGL AGGR REPL
RCHRES 460 HYDR  TAU                MAX  WDM2  4460 TAUX      ENGL AGGR REPL
RCHRES 440 HYDR  TAU                MAX  WDM2  4440 TAUX      ENGL AGGR REPL

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RCHRES 470 HYDR TAU MAX WDM2 4470 TAUX ENGL AGGR REPL
RCHRES 480 HYDR TAU MAX WDM2 4480 TAUX ENGL AGGR REPL
RCHRES 490 HYDR TAU MAX WDM2 4490 TAUX ENGL AGGR REPL
RCHRES 500 HYDR TAU MAX WDM2 4500 TAUX ENGL AGGR REPL
RCHRES 510 HYDR TAU MAX WDM2 4510 TAUX ENGL AGGR REPL
RCHRES 520 HYDR TAU MAX WDM2 4520 TAUX ENGL AGGR REPL
END EXT TARGETS
```

MASS-LINK

```
MASS-LINK 1
<-Volume-> <-Grp> <-Member-><--Mult--> <-Target vols> <-Grp> <-Member-> ***
<Name> <Name> x x<-factor-> <Name> <Name> x x ***
PERLND PWATER PERO 0.0833333 RCHRES INFLOW IVOL
PERLND SEDMNT SOSED 1 0.05 RCHRES INFLOW ISED 1
PERLND SEDMNT SOSED 1 0.7 RCHRES INFLOW ISED 2
PERLND SEDMNT SOSED 1 0.25 RCHRES INFLOW ISED 3
PERLND PWTGAS POHT RCHRES INFLOW IHEAT
PERLND PWTGAS PODOXM RCHRES INFLOW OXIF 1
PERLND PWATER SURO 3 RCHRES INFLOW PHIF 1
PERLND PWTGAS IOCO2M 27 RCHRES INFLOW PHIF 1
PERLND PWTGAS AOCO2M 38 RCHRES INFLOW PHIF 1
PERLND PQUAL POQUAL 1 RCHRES INFLOW NUIF1 1
PERLND PQUAL POQUAL 2 RCHRES INFLOW NUIF1 2
PERLND PQUAL POQUAL 3 RCHRES INFLOW NUIF1 4
PERLND PQUAL POQUAL 4 0.4 RCHRES INFLOW OXIF 2
PERLND PQUAL POQUAL 4 0.025 RCHRES INFLOW PKIF 3
PERLND PQUAL POQUAL 4 0.004 RCHRES INFLOW PKIF 4
PERLND PQUAL POQUAL 4 1.2 RCHRES INFLOW PKIF 5
PERLND PQUAL IOQUAL 5 RCHRES INFLOW ICON 1
PERLND PQUAL AOQUAL 5 RCHRES INFLOW ICON 1
PERLND PWATER SURO 12 RCHRES INFLOW ICON 1
PERLND PQUAL POQUAL 6 RCHRES INFLOW IDQAL 1
PERLND PQUAL POQUAL 7 RCHRES INFLOW IDQAL 2
PERLND PQUAL SOQS 2 0.05 RCHRES INFLOW ISQAL 1 3
PERLND PQUAL SOQS 2 0.35 RCHRES INFLOW ISQAL 2 3
PERLND PQUAL SOQS 2 0.6 RCHRES INFLOW ISQAL 3 3
PERLND PQUAL IOQUAL 8 RCHRES INFLOW IDQAL 3
PERLND PQUAL AOQUAL 8 RCHRES INFLOW IDQAL 3
PERLND PQUAL POQUAL 9 RCHRES INFLOW IDQAL 4
END MASS-LINK 1
```

```
MASS-LINK 2
<-Volume-> <-Grp> <-Member-><--Mult--> <-Target vols> <-Grp> <-Member-> ***
<Name> <Name> x x<-factor-> <Name> <Name> x x ***
PERLND PWATER PERO 0.0833333 RCHRES INFLOW IVOL
PERLND SEDMNT SOSED 1 0.05 RCHRES INFLOW ISED 1
PERLND SEDMNT SOSED 1 0.7 RCHRES INFLOW ISED 2
PERLND SEDMNT SOSED 1 0.25 RCHRES INFLOW ISED 3
PERLND PWTGAS POHT RCHRES INFLOW IHEAT
PERLND PWTGAS PODOXM RCHRES INFLOW OXIF 1
PERLND PWATER SURO 5 RCHRES INFLOW PHIF 1
PERLND PWTGAS IOCO2M 50 RCHRES INFLOW PHIF 1
PERLND PWTGAS AOCO2M 70 RCHRES INFLOW PHIF 1
PERLND PQUAL POQUAL 1 RCHRES INFLOW NUIF1 1
PERLND PQUAL POQUAL 2 RCHRES INFLOW NUIF1 2
PERLND PQUAL POQUAL 3 RCHRES INFLOW NUIF1 4
PERLND PQUAL POQUAL 4 0.4 RCHRES INFLOW OXIF 2
PERLND PQUAL POQUAL 4 0.025 RCHRES INFLOW PKIF 3
PERLND PQUAL POQUAL 4 0.004 RCHRES INFLOW PKIF 4
PERLND PQUAL POQUAL 4 1.2 RCHRES INFLOW PKIF 5
PERLND PQUAL IOQUAL 5 RCHRES INFLOW ICON 1
PERLND PQUAL AOQUAL 5 RCHRES INFLOW ICON 1
PERLND PWATER SURO 12 RCHRES INFLOW ICON 1
PERLND PQUAL POQUAL 6 RCHRES INFLOW IDQAL 1
PERLND PQUAL POQUAL 7 RCHRES INFLOW IDQAL 2
PERLND PQUAL SOQS 2 0.05 RCHRES INFLOW ISQAL 1 3
PERLND PQUAL SOQS 2 0.35 RCHRES INFLOW ISQAL 2 3
PERLND PQUAL SOQS 2 0.6 RCHRES INFLOW ISQAL 3 3
PERLND PQUAL IOQUAL 8 RCHRES INFLOW IDQAL 3
PERLND PQUAL AOQUAL 8 RCHRES INFLOW IDQAL 3
PERLND PQUAL POQUAL 9 RCHRES INFLOW IDQAL 4
END MASS-LINK 2
```

```
MASS-LINK 3
<-Volume-> <-Grp> <-Member-><--Mult--> <-Target vols> <-Grp> <-Member-> ***
```

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<Name>          <Name> x x<-factor->          <Name>          <Name> x x ***
IMPLND          IWATER SURO          0.0833333 RCHRES          INFLOW IVOL
IMPLND          SOLIDS SOSLD 1          0.05          RCHRES          INFLOW ISED 1
IMPLND          SOLIDS SOSLD 1          0.7           RCHRES          INFLOW ISED 2
IMPLND          SOLIDS SOSLD 1          0.25          RCHRES          INFLOW ISED 3
IMPLND          IWTGAS SOHT          RCHRES          INFLOW IHEAT
IMPLND          IWTGAS SODOXM          RCHRES          INFLOW OXIF 1
IMPLND          IWATER SURO          3           RCHRES          INFLOW PHIF 1
IMPLND          IQUAL  SOQUAL 1          RCHRES          INFLOW NUIF1 1
IMPLND          IQUAL  SOQUAL 2          RCHRES          INFLOW NUIF1 2
IMPLND          IQUAL  SOQUAL 3          RCHRES          INFLOW NUIF1 4
IMPLND          IQUAL  SOQUAL 4          0.4           RCHRES          INFLOW OXIF 2
IMRLND          IQUAL  SOQUAL 4          0.025         RCHRES          INFLOW PKIF 3
IMPLND          IQUAL  SOQUAL 4          0.004         RCHRES          INFLOW PKIF 4
IMPLND          IQUAL  SOQUAL 4          1.2           RCHRES          INFLOW PKIF 5
IMPLND          IWATER SURO          12          RCHRES          INFLOW ICON 1
IMPLND          IQUAL  SOQUAL 6          RCHRES          INFLOW IDQAL 1
IMPLND          IQUAL  SOQUAL 7          RCHRES          INFLOW IDQAL 2
IMPLND          IQUAL  SOQS 2          0.05          RCHRES          INFLOW ISQAL 1 3
IMPLND          IQUAL  SOQS 2          0.35          RCHRES          INFLOW ISQAL 2 3
IMPLND          IQUAL  SOQS 2          0.6           RCHRES          INFLOW ISQAL 3 3
IMPLND          IQUAL  SOQUAL 9          RCHRES          INFLOW IDQAL 4
END MASS-LINK          3

MASS-LINK          4
<-Volume-> <-Grp> <-Member-><--Mult--> <-Target vols> <-Grp> <-Member-> ***
<Name>          <Name> x x<-factor->          <Name>          <Name> x x ***
PERLND          PWATER SURO          0.0833333 RCHRES          INFLOW IVOL
PERLND          PWATER IFWO          0.0833333 RCHRES          INFLOW IVOL
PERLND          SEDMNT SOSED 1          0.05          RCHRES          INFLOW ISED 1
PERLND          SEDMNT SOSED 1          0.7           RCHRES          INFLOW ISED 2
PERLND          SEDMNT SOSED 1          0.25          RCHRES          INFLOW ISED 3
PERLND          PWTGAS SOHT          RCHRES          INFLOW IHEAT
PERLND          PWTGAS IOHT          RCHRES          INFLOW IHEAT
PERLND          PWTGAS SODOXM          RCHRES          INFLOW OXIF 1
PERLND          PWTGAS IODOXM          RCHRES          INFLOW OXIF 1
PERLND          PWATER SURO          5           RCHRES          INFLOW PHIF 1
PERLND          PWTGAS IOCO2M          50          RCHRES          INFLOW PHIF 1
PERLND          PQUAL  SOQUAL 1          RCHRES          INFLOW NUIF1 1
PERLND          PQUAL  IOQUAL 1          RCHRES          INFLOW NUIF1 1
PERLND          PQUAL  SOQUAL 2          RCHRES          INFLOW NUIF1 2
PERLND          PQUAL  IOQUAL 2          RCHRES          INFLOW NUIF1 2
PERLND          PQUAL  SOQUAL 3          RCHRES          INFLOW NUIF1 4
PERLND          PQUAL  IOQUAL 3          RCHRES          INFLOW NUIF1 4
PERLND          PQUAL  SOQUAL 4          0.4           RCHRES          INFLOW OXIF 2
PERLND          PQUAL  IOQUAL 4          0.4           RCHRES          INFLOW OXIF 2
PERLND          PQUAL  SOQUAL 4          0.025         RCHRES          INFLOW PKIF 3
PERLND          PQUAL  IOQUAL 4          0.025         RCHRES          INFLOW PKIF 3
PERLND          PQUAL  SOQUAL 4          0.004         RCHRES          INFLOW PKIF 4
PERLND          PQUAL  IOQUAL 4          0.004         RCHRES          INFLOW PKIF 4
PERLND          PQUAL  SOQUAL 4          1.2           RCHRES          INFLOW PKIF 5
PERLND          PQUAL  IOQUAL 4          1.2           RCHRES          INFLOW PKIF 5
PERLND          PQUAL  IOQUAL 5          RCHRES          INFLOW ICON 1
PERLND          PWATER SURO          12          RCHRES          INFLOW ICON 1
PERLND          PQUAL  SOQUAL 6          RCHRES          INFLOW IDQAL 1
PERLND          PQUAL  IOQUAL 6          RCHRES          INFLOW IDQAL 1
PERLND          PQUAL  SOQUAL 7          RCHRES          INFLOW IDQAL 2
PERLND          PQUAL  IOQUAL 7          RCHRES          INFLOW IDQAL 2
PERLND          PQUAL  SOQS 2          0.05          RCHRES          INFLOW ISQAL 1 3
PERLND          PQUAL  SOQS 2          0.35          RCHRES          INFLOW ISQAL 2 3
PERLND          PQUAL  SOQS 2          0.6           RCHRES          INFLOW ISQAL 3 3
PERLND          PQUAL  IOQUAL 8          RCHRES          INFLOW IDQAL 3
PERLND          PQUAL  SOQUAL 9          RCHRES          INFLOW IDQAL 4
PERLND          PQUAL  IOQUAL 9          RCHRES          INFLOW IDQAL 4
END MASS-LINK          4

MASS-LINK          5
<-Volume-> <-Grp> <-Member-><--Mult--> <-Target vols> <-Grp> <-Member-> ***
<Name>          <Name> x x<-factor->          <Name>          <Name> x x ***
PERLND          PWATER AGWO          0.0833333 RCHRES          INFLOW IVOL
PERLND          PWTGAS AOHT          RCHRES          INFLOW IHEAT
PERLND          PWTGAS AODOXM          RCHRES          INFLOW OXIF 1
PERLND          PWTGAS AOCCO2M          70          RCHRES          INFLOW PHIF 1
PERLND          PQUAL  AOQUAL 1          RCHRES          INFLOW NUIF1 1
PERLND          PQUAL  AOQUAL 2          RCHRES          INFLOW NUIF1 2
PERLND          PQUAL  AOQUAL 3          RCHRES          INFLOW NUIF1 4

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PERLND      PQUAL  AOQUAL  4          0.4      RCHRES      INFLOW  OXIF   2
PERLND      PQUAL  AOQUAL  4          0.025     RCHRES      INFLOW  PKIF   3
PERLND      PQUAL  AOQUAL  4          0.004     RCHRES      INFLOW  PKIF   4
PERLND      PQUAL  AOQUAL  4          1.2       RCHRES      INFLOW  PKIF   5
PERLND      PQUAL  AOQUAL  5          RCHRES      INFLOW  ICON   1
PERLND      PQUAL  AOQUAL  6          RCHRES      INFLOW  IDQAL  1
PERLND      PQUAL  AOQUAL  7          RCHRES      INFLOW  IDQAL  2
PERLND      PQUAL  AOQUAL  8          RCHRES      INFLOW  IDQAL  3
PERLND      PQUAL  AOQUAL  9          RCHRES      INFLOW  IDQAL  4
  END MASS-LINK      5

  MASS-LINK          6
<-Volume-> <-Grp> <-Member-><--Mult--> <-Target vols> <-Grp> <-Member-> ***
<Name> <Name> x x<-factor-> <Name> <Name> x x ***
RCHRES      ROFLOW
  END MASS-LINK      6

  MASS-LINK          7
<-Volume-> <-Grp> <-Member-><--Mult--> <-Target vols> <-Grp> <-Member-> ***
<Name> <Name> x x<-factor-> <Name> <Name> x x ***
RCHRES      OFLOW      1
  END MASS-LINK      7

  MASS-LINK          8
<-Volume-> <-Grp> <-Member-><--Mult--> <-Target vols> <-Grp> <-Member-> ***
<Name> <Name> x x<-factor-> <Name> <Name> x x ***
RCHRES      OFLOW      2
  END MASS-LINK      8

  MASS-LINK          90
<-Volume-> <-Grp> <-Member-><--Mult--> <-Target vols> <-Grp> <-Member-> ***
<Name> <Name> x x<-factor-> <Name> <Name> x x ***
PERLND      PWATER  SURO
PERLND      PWATER  IFWO
PERLND      PWATER  AGWO
PERLND      PWATER  PET
PERLND      PWATER  TAET
PERLND      PWATER  UZS
PERLND      PWATER  LZS
  END MASS-LINK      90

  MASS-LINK          91
<-Volume-> <-Grp> <-Member-><--Mult--> <-Target vols> <-Grp> <-Member-> ***
<Name> <Name> x x<-factor-> <Name> <Name> x x ***
IMPLND      IWATER  SURO
IMPLND      IWATER  PET
IMPLND      IWATER  IMPEV
  END MASS-LINK      91
END MASS-LINK

END RUN

```