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	LMGR		

REMARKS

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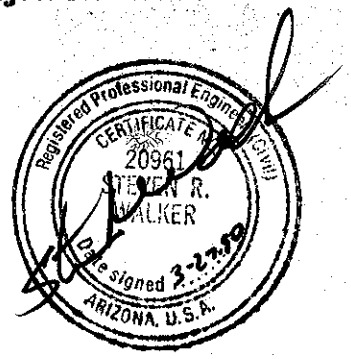
CAVE CREEK/CAREFREE
FLOOD DELINEATION STUDY

APPENDIX B

CH2M HILL
Project No. RDD27815.H3



PHXR4.222.50

FLOOD CONTROL DISTRICT
RECEIVED
MAR 28 1990

	CH ENG		P & PM
	DEP		HYDRO
	ADMIN		LMGT
	FINANCE		FILE
	C & O		
	EMGR		

REMARKS

PRELIMINARY

FLOOD CONTROL DISTRICT
RECEIVED
APR 12 1990

	CH ENG		P & PM
	DEP		HYDRO
	ADMIN		LMGT
	FINANCE		FILE
	C & O		
	EMGR		

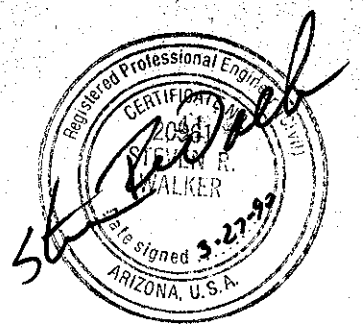
REMARKS

CAVE CREEK/CAREFREE FLOOD DELINEATION STUDY

APPENDIX C

3 of 3

CH2M HILL
Project No. RDD27815.H3



PHXR4.222.50

```
*****************************************
*                                       *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
*            FEBRUARY 1981              *
*          REVISED 01 JUN 88            *
*                                       *
*  RUN DATE  03/07/1990  TIME  21:24:03 *
*                                       *
*****************************************
```

```
*****************************************
*                                       *
*    U.S. ARMY CORPS OF ENGINEERS       *
*  THE HYDROLOGIC ENGINEERING CENTER    *
*          609 SECOND STREET            *
*       DAVIS, CALIFORNIA 95616         *
*          (916) 551-1748               *
*                                       *
*****************************************
```

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

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

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

CVCRK33R.OUT

CAVE CREEK 24HR STORM
MODEL

Area is measured incorrectly.

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

  1           ID
  2           ID   *** CVCRK33R.DAT ***
  3           ID   CAVE CREEK/CAREFREE FIS
  4           ID   CH2M HILL PROJECT # LA027815.H1
  5           ID   MCFCD PROJECT # 88-53
  6           ID   100 YEAR FLOW CALCULATIONS FOR CAVE CREEK
  7           ID   CH2M HILL  RUN 3.3;
  8           ID   ORIGINAL MODEL WAS DEVELOPED BY FCDMC. MODIFIED BY CH2M HILL
  9           ID   FINAL REVISIONS BY FCDMC.
 10           ID   INITIAL AND UNIFORM LOSS METHOD (LOSSES BASED ON HYDRO SOIL GROUP)
 11           ID   CAVE CREEK BASIN 100-YR 24 HR RAINFALL = 5.0 IN.
 12           ID   STUDY AREA SUBBASINS 100-YR 24 HR RAINFALL = 4.81 IN.
 13           ID   BA = 112 SQUARE MILE : PRECIP. AREAL REDUCTION FACTOR = 85%
 14           ID   TIME OF CONCENTRATION ESTIMATED BY CH2M HILL -- REVISED BY FCDMC
 15           ID   MUSKINGUM X BASED ON CHANNEL VELOCITIES. K = 0.2
 16           ID
 17           ID
 18           ID
 19           ID
 20           ID
 21           ID
 22           IT      5                    300
 23           IO      3       0       0
 24           JR    PREC     .68     .90     1.0    1.19

 25           KK      A1
 26           KM   UPPER CAVE CREEK
 27           KM   RUNOFF FROM A1, THE RAINFALL DISTRIBUTION IS SCS TYPE II REDUCED
 28           KM   FOR THE CAVE CREEK BASIN AREA OF 112 SQ.MI.
 29           IN      15
 30           PB    4.25       0
 31           PC    0.00   0.002    .005    .008    .011    .014    .017    .020    .023    .026
 32           PC    .029    .032    .035    .038    .041    .044    .048    .052    .056    .060
 33           PC    .064    .068    .072    .076    .080    .085    .090    .095    .100    .105
 34           PC    .110    .115    .120    .126    .133    .140    .147    .155    .163    .172
 35           PC    .181    .191    .203    .218    .236    .257    .283    .387    .663    .707
 36           PC    .735    .758    .776    .791    .804    .815    .825    .834    .842    .849
 37           PC    .856    .863    .869    .875    .881    .887    .893    .898    .903    .908
 38           PC    .913    .918    .922    .926    .930    .934    .938    .942    .946    .950
 39           PC    .953    .956    .959    .962    .965    .968    .971    .974    .977    .980
 40           PC    .983    .986    .989    .992    .995    .998   1.000   1.000
 41           BA   15.75
 42           LU     .88    .130       0
 43           UD    1.42

 44           KK      A2
 45           KM   RUNOFF FROM A2
 46           BA   10.69       0
 47           LU     .65     .13       0
 48           UD    1.61
```

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

  49          KK      A3
  50          KM   RUNOFF FROM A3
  51          BA    4.75
  52          LU     .65     .13       0
  53          UD    1.49

  54          KK       1
  55          KM   HYDROGRAPH COMBINATION, ALL BASINS ABOVE 1
  56          HC       3

  57          KK      R1
  58          KM   ROUTING 1 TO 3
  59          RM       4      .8     0.2

  60          KK      A4
  61          KM   RUNOFF FROM A4
  62          BA   10.47
  63          LU     .65     .13       0
  64          UD    1.43

  65          KK      A5
  66          KM   RUNOFF FROM A5
  67          BA    3.43
  68          LU     .65     .13       0
  69          UD    1.25

  70          KK      R2
  71          KM   ROUTING 2 TO 3
  72          RM       1    0.16     0.2

  73          KK      A6
  74          KM   RUNOFF FROM A6
  75          BA    3.50
  76          LU     .65     .13       0
  77          UD    1.26

  78          KK       3
  79          KM   HYDROGRAPH COMBINATION, ALL BASINS ABOVE 3
  80          HC       4

  81          KK      R3
  82          KM   ROUTING 3 TO 10,
  83          RM       6     .75     0.2

  84          KK      A7
  85          KM   RUNOFF FROM A7
  86          BA   11.62
  87          LU     .65     .13       0
  88          UD    1.33
```

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

 89           KK      10
 90           KM   HYDROGRAPH COMBINATION, ALL BASINS ABOVE 10
 91           HC       2

 92           KK     R10
 93           KM   ROUTING 10 TO 23
 94           RM       1    0.06     0.2

 95           KK      E1
 96           KM   RUNOFF FROM E1, THE RAINFALL DEPTH IS 4.09 IN. (LOWER BASIN) AND THE
 97           KM   DISTRIBUTION IS SCS TYPE II WITH 85% AREAL REDUCTION
 98           PB    4.09       0
 99           BA    0.51
100           LU     .75    .140       0
101           UD    0.25

102           KK      B3
103           KM   RUNOFF FROM BASIN B3
104           KM   BEGIN COTTONWOOD
105           BA    1.33       0       0
106           LU     .75     .08       0
107           UD    0.82

108           KK      B2
109           KM   RUNOFF FROM B2
110           BA    0.31
111           LU     .75     .08       0
112           UD    0.19

113           KK     14A
114           KM   COMBINING HYDROGRAPHS
115           HC       2

116           KK    R14A
117           KM   ROUTING 14A TO 12A
118           RM       1    0.10     0.2

119           KK      B4
120           KM   RUNOFF FROM B4
121           BA    0.56
122           LU     .75     .08       0
123           UD    0.22

124           KK      B1
125           KM   RUNOFF FROM B1
126           BA    6.11
127           LU     .75     .08       0
128           UD    0.55
```

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

 129          KK     12A
 130          KM   COMBINING B4, B3+2 AND B1
 131          HC       3

 132          KK    R12A
 133          KM   ROUTING 12A TO 11A
 134          RM       2    0.04     0.2

 135          KK      B5
 136          KM   RUNOFF FROM B5
 137          BA    0.49
 138          LU     .75     .08       0
 139          UD    0.22

 140          KK      B6
 141          KM   RUNOFF FROM B6
 142          BA    0.82
 143          LU     .75     .08       0
 144          UD    0.37

 145          KK     11A
 146          KM   COMBINING B5,B6,ALL OTHERS ON B
 147          HC       3

 148          KK    R11A
 149          KM   ROUTING 11A TO B
 150          RM       1    0.12     0.2

 151          KK      B7
 152          KM   RUNOFF FROM B7
 153          BA    0.44
 154          LU     .75    .085       0
 155          UD    0.27

 156          KK       B
 157          KM   COTTONWOOD CREEK, ABOVE CONFLUENCE WITH CAVE CREEK
 158          HC       2

 159          KK      23
 160          KM   HYDROGRAPH COMBINATION ALL BASINS BEFORE 23
 161          HC       3

 162          KK     R23
 163          KM   ROUTING 23 TO 24
 164          RM       1    0.10     0.2

 165          KK      E2
 166          KM   RUNOFF FROM E2
 167          BA     0.5
 168          LU     .65     .06       0
 169          UD    0.28
```

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

 170          KK      E3
 171          KM   RUNOFF FROM E3
 172          BA    0.42
 173          LU     .65     .06       0
 174          UD    0.59

 175          KK      24
 176          KM   HYDROGRAPH COMBINATION, ALL BASINS BEFORE 24
 177          HC       3

 178          KK     R24
 179          KM   ROUTING 24 TO 25
 180          RM       1    0.17     0.2

 181          KK      E4
 182          KM   RUNOFF FROM E4
 183          BA    2.05
 184          LU     .65     .09       0
 185          UD    0.23

 186          KK      E5
 187          KM   RUNOFF FROM E5
 188          BA    0.19
 189          LU     .65     .08       0
 190          UD    0.14

 191          KK      25
 192          KM   HYDROGRAPH COMBINATION, ALL BASINS BEFORE 24
 193          HC       3

 194          KK     E6A
 195          KM   RUNOFF FROM E6A
 196          BA    1.00
 197          LU     .65     .06       0
 198          UD     .25

 199          KK      E6
 200          KM   RUNOFF FROM E6
 201          BA    0.19
 202          LU     .65     .06       0
 203          UD    0.17

 204          KK      26
 205          KM   HYDROGRAPH COMBINATION, ALL BASINS ABOVE 26
 206          HC       3

 207          KK      E7
 208          KM   RUNOFF FROM E7
 209          BA    0.37
 210          LU     .65     .08       0
 211          UD    0.29
```

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

 212          KK      E8
 213          KM   RUNOFF FROM E8
 214          BA    0.36
 215          LU     .65     .09       0
 216          UD    0.28

 217          KK      27
 218          KM   HYDROGRAPH COMBINATION,ALL BASINS ABOVE 27
 219          HC       3

 220          KK     R27
 221          KM   ROUTING 27 TO 30
 222          RM       1    0.11     0.2

 223          KK     E10
 224          KM   RUNOFF FROM E10
 225          BA    2.16
 226          LU     .65     .09       0
 227          UD    0.61

 228          KK      E9
 229          KM   RUNOFF FROM E9
 230          BA    0.42
 231          LU     .65     .08       0
 232          UD    0.39

 233          KK      30
 234          KM   HYDROGRAPH COMBINATION, ALL BASINS ABOVE 30
 235          HC       3

 236          KK     R30
 237          KM   ROUTING 30 TO 33
 238          RM       2    0.19     0.2

 239          KK     E11
 240          KM   RUNOFF FROM E11
 241          BA    0.47
 242          LU     .65     .14       0
 243          UD    0.28

 244          KK     E12
 245          KM   RUNOFF FROM E12
 246          BA    0.43
 247          LU     .65     .07       0
 248          UD    0.46

 249          KK      D1
 250          KM   FLEMMING WASH
 251          KM   RUNOFF FROM D1
 252          BA    0.56
 253          LU     .65     .09       0
 254          UD    0.24
```

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

 255          KK      D2
 256          KM   BEGIN WILLOW SPRINGS WASH
 257          KM   RUNOFF FROM D2
 258          BA    0.32
 259          LU     .65     .09       0
 260          UD    0.26

 261          KK      16
 262          KM   HYDROGRAPH COMBINATION, D1 AND D2
 263          HC       2

 264          KK     R16
 265          KM   ROUTING 16 TO 17
 266          RM       1    0.11     0.2

 267          KK     F2C
 268          KM   RUNOFF FROM F2C
 269          BA    0.53
 270          LU     .65     .06       0
 271          UD    0.30

 272          KK     17A
 273          KM   HYDROGRAPH COMBINATION, FLOW FROM 16 AND F2C; ABOVE CONFLUENCE
 274          HC       2

 275          KK     F2D
 276          KM   RUNOFF FROM F2D
 277          BA    0.23
 278          LU     .65     .10       0
 279          UD    0.53

 280          KK      17
 281          KM   HYDROGRAPH COMBINATION, FLOW FROM F2C, 16 AND F2D; BELOW CONFLUENCE
 282          HC       2

 283          KK     R17
 284          KM   ROUTING 17 TO 19A
 285          RM       1    0.17     0.2

 286          KK     F2F
 287          KM   RUNOFF FROM F2F
 288          BA    0.17
 289          LU     .65     .06       0
 290          UD    0.22

 291          KK     19A
 292          KM   HYDROGRAPH COMBINATION, FLOW FROM 17 AND F2F; ABOVE CONFLUENCE
 293          HC       2
```

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

 294          KK     F2A
 295          KM   RUNOFF FROM F2A
 296          BA    0.29
 297          LU     .65     .06       0
 298          UD    0.30

 299          KK     F2B
 300          KM   RUNOFF FROM F2B
 301          BA    0.43
 302          LU     .65     .06       0
 303          UD    0.30

 304          KK      18
 305          KM   HYDROGRAPH COMBINATION, FLOW FROM F2A AND F2B
 306          HC       2

 307          KK     R18
 308          KM   ROUTING 18 TO 19B
 309          RM       1    0.12     0.2

 310          KK     F2E
 311          KM   RUNOFF FROM F2E
 312          BA    0.23
 313          LU     .65     .06       0
 314          UD    0.31

 315          KK     19B
 316          KM   HYDROGRAPH COMBINATION, FLOW FROM 18 AND F2E;
 317          KM   ABOVE CONFLUENCE WITH WILLOW SPRINGS WASH
 318          HC       2

 319          KK      19
 320          KM   HYDROGRAPH COMBINATION, FLOW FROM 17, 18, 19A AND 19B; BELOW CONFLUENCE
 321          HC       2

 322          KK     R19
 323          KM   ROUTING 19 TO 31A
 324          RM       2    0.16     0.2

 325          KK      F2
 326          KM   RUNOFF FROM F2
 327          BA    0.33
 328          LU     .65    .095       0
 329          UD    0.32

 330          KK     31A
 331          KM   HYDROGRAPH COMBINATION, FLOW FROM 19 AND F2; ABOVE CONFLUENCE
 332          HC       2
```

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

 333          KK      F1
 334          KM   RUNOFF FROM F1
 335          BA    1.65
 336          LU     .65     .08       0
 337          UD    0.97

 338          KK      31
 339          KM   WILLOW SPRINGS WASH 0.8 MILES ABOVE CONFLUENCE WITH CAVE CK.
 340          KM   HYDROGRAPH COMBINATION, FLOW FROM F1, F2 AND 19; BELOW CONFLUENCE
 341          HC       2

 342          KK     R31
 343          KM   ROUTING 31 TO F
 344          RM       2    0.12     0.2

 345          KK      F3
 346          KM   RUNOFF FROM F3
 347          BA    0.89
 348          LU     .65     .14       0
 349          UD    1.21

 350          KK      F4
 351          KM   RUNOFF FROM F4
 352          BA    0.16
 353          LU     .65     .15       0
 354          UD    0.35

 355          KK       F
 356          KM   WILLOW SPRINGS WASH ABOVE CONFLUENCE WITH CAVE CREEK
 357          HC       3

 358          KK      33
 359          KM   HYDROGRAPH COMBINATION, ALL BASINS ABOVE 33;
 360          KM   BELOW CONFLUENCE OF CAVE CREEK/WILLOW SPRINGS WASH
 361          HC       4

 362          KK     E13
 363          KM   RUNOFF FROM E13
 364          BA    0.04
 365          LU     .65     .06
 366          UD    0.05

 367          KK     E14
 368          KM   RUNOFF FROM E14
 369          BA   0.861
 370          LU     .65     .06       0
 371          UD    0.35

 372          KK     G2A
 373          KM   BEGIN OCOTILLO
 374          KM   RUNOFF FROM G2A
 375          BA    0.61
 376          LU     .65     .14       0
 377          UD    0.31
```

too small. wrong. look at 33 & 5
Compare with E19.

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

 378        KK     G2B
 379        KM   RUNOFF FROM G2B
 380        BA    0.15
 381        LU     .65     .14       0
 382        UD    0.47

 383        KK      36
 384        KM   HYDROGRAPH COMBINATION, FLOW FROM G2A AND G2B
 385        HC       2

 386        KK      G1
 387        KM   RUNOFF FROM G1
 388        BA    0.61
 389        LU     .65     .08       0
 390        UD    0.17

 391        KK     R34
 392        KM   ROUTING FROM 34 TO 35
 393        RM       4     .43      .2

 394        KK      G2
 395        KM   RUNOFF FROM G2
 396        BA    1.17
 397        LU     .65     .14       0
 398        UD    0.43

 399        KK     35A
 400        KM   HYDROGRAPH COMBINATION, FLOW FROM G1 AND G2; ABOVE CONFLUENCE
 401        HC       2

 402        KK      35
 403        KM   HYDROGRAPH COMBINATION, FLOW FROM G1, G2 AND 36; BELOW CONFLUENCE
 404        HC       2

 405        KK     R35
 406        KM   ROUTING 35 TO G
 407        RM       4    0.37     0.2

 408        KK      G3
 409        KM   RUNOFF FROM G3
 410        BA    0.85
 411        LU     .65     .23       0
 412        UD    0.50

 413        KK       G
 414        KM   HYDROGRAPH COMBINATION, FLOW FROM G3 AND 35;
 415        KM   ABOVE CONFLUENCE WITH CAVE CREEK
 416        HC       2
```

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

 417          KK      39
 418          KM   HYDROGRAPH COMBINATION, ALL BASINS ABOVE 39;
 419          KM   BELOW CONFLUENCE OF CAVE CREEK/OCOTILLO WASH
 420          HC       4

 421          KK      I1
 422          KM   BEGIN NORTH GALLOWAY WASH
 423          KM   RUNOFF FROM I1
 424          BA    4.98
 425          LU     .65     .07       0
 426          UD    0.57

 427          KK      I2
 428          KM   RUNOFF FROM I2
 429          BA    0.62
 430          LU     .65     .08       0
 431          UD    0.47

 432          KK      59
 433          KM   HYDROGRAPH COMBINATION, FLOW FROM I1 AND I2
 434          HC       2

 435          KK     R59
 436          KM   ROUTING 59 TO 63
 437          RM       5    0.54     0.2

 438          KK      I3
 439          KM   RUNOFF FROM I3
 440          BA    1.07
 441          LU     .65     .15       0
 442          UD    0.43

 443          KK      63
 444          KM   NORTH GALLOWAY WASH ABOVE CONFLUENCE WITH ROWE WASH
 445          HC       2

 446          KK     H1E
 447          KM   BEGIN ROWE WASH
 448          KM   RUNOFF FROM H1E
 449          BA    0.13
 450          LU     .65     .06       0
 451          UD    0.13

 452          KK     H1F
 453          KM   RUNOFF FROM H1F
 454          BA    0.12
 455          LU     .65     .06       0
 456          UD    0.14
```

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

 457          KK     53
 458          KM   HYDROGRAPH COMBINATION, FLOW FROM H1E AND H1F
 459          HC      2

 460          KK    R53
 461          KM   ROUTING 53 TO 50
 462          RM      1.   0.11     0.2

 463          KK     H1
 464          KM   RUNOFF FROM H1
 465          BA   0.24
 466          LU    .65     .06       0
 467          UD   0.13

 468          KK    50A
 469          KM   HYDROGRAPH COMBINATION, FLOW FROM 53 AND H1; ABOVE CONFLUENCE
 470          HC      2

 471          KK    H1C
 472          KM   RUNOFF FROM H1C
 473          BA   0.25
 474          LU    .65     .06       0
 475          UD   0.16

 476          KK     50
 477          KM   HYDROGRAPH COMBINATION, FLOW FROM 53, H1 AND H1C; BELOW CONFLUENCE
 478          HC      2

 479          KK    H1D
 480          KM   RUNOFF FROM H1D
 481          BA   0.09
 482          LU    .65     .12       0
 483          UD   0.14

 484          KK    51B
 485          KM   HYDROGRAPH COMBINATION, FLOW FROM 50 AND H1D; ABOVE CONFLUENCE
 486          HC      2

 487          KK    H1A
 488          KM   RUNOFF FROM H1A
 489          KM   BEGIN GRAPEVINE WASH
 490          BA   3.48
 491          LU    .65     .06       0
 492          UD   0.44

 493          KK    R49
 494          KM   ROUTING 49 TO 51A
 495          RM      3    0.35     0.2
```

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

496           KK     H1B
497           KM   RUNOFF FROM H1B
498           BA    0.32
499           LU     .65     .09       0
500           UD    0.22

501           KK     51A
502           KM   HYDROGRAPH COMBINATION, FLOW FROM H1A AND H1B;
503           KM   ABOVE CONFLUENCE WITH ROWE WASH
504           HC       2

505           KK      51
506           KM   HYDROGRAPH COMBINATION, FLOW FROM H1A, H1B, H1D AND 50;
507           KM   BELOW CONFLUENCE OF ROWE/GRAPEVINE WASH
508           HC       2

509           KK     R51
510           KM   ROUTING 51 TO 71A
511           RM       4    0.44     0.2

512           KK       H
513           KM   RUNOFF FROM H
514           BA    0.68
515           LU     .65     .23       0
516           UD    1.00

517           KK     71A
518           KM   HYDROGRAPH COMBINATION, FLOW FROM 51 AND H; ABOVE CONFLUENCE
519           HC       2

520           KK      H2
521           KM   RUNOFF FROM H2
522           BA    0.21
523           LU     .65     .16       0
524           UD    0.48

525           KK      H3
526           KM   RUNOFF FROM H3
527           BA    0.35
528           LU     .65     .14       0
529           UD    0.37

530           KK      I5
531           KM   BEGIN SOUTH GALLOWAY WASH
532           KM   RUNOFF FROM I5
533           BA    4.98
534           LU     .65     .16       0
535           UD    1.32
```

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

536         KK     R52
537         KM   ROUTING 52 TO 71B
538         RM       3    0.29     0.2

539         KK      I6
540         KM   RUNOFF FROM I6
541         BA    1.82
542         LU     .65     .16       0
543         UD    1.32

544         KK     71B
545         KM   HYDROGRAPH COMBINATION, FLOW FROM I5 AND I6;
546         KM   ABOVE CONFLUENCE WITH ROWE WASH
547         HC       2

548         KK      71
549         KM   BELOW CONFLUENCE OF NORTH GALLOWAY/SOUTH GALLOWAY/ROWE WASH
550         HC       5

551         KK     R71
552         KM   ROUTING 71 TO I
553         RM       2    0.22     0.2

554         KK      I9
555         KM   RUNOFF FROM I9
556         BA    0.26
557         LU     .65     .19       0
558         UD    0.07

559         KK       I
560         KM   GALLOWAY WASH ABOVE CONFLUENCE WITH CAVE CREEK
561         HC       2

562         KK     E15
563         KM   RUNOFF FROM E15
564         BA    0.21
565         LU     .65     .07       0
566         UD     .09

567         KK      72
568         KM   HYDROGRAPH COMBINATION, ALL BASINS ABOVE 72;
569         KM   BELOW CONFLUENCE OF GALLOWAY WASH/CAVE CREEK
570         HC       3
571         ZZ
```

```
****************************************
*                                      *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *
*            FEBRUARY 1981             *
*          REVISED 01 JUN 88           *
*                                      *
* RUN DATE  03/07/1990  TIME  21:24:03 *
*                                      *
****************************************
```

```
****************************************
*                                      *
*    U.S. ARMY CORPS OF ENGINEERS      *
*  THE HYDROLOGIC ENGINEERING CENTER   *
*          609 SECOND STREET           *
*       DAVIS, CALIFORNIA 95616        *
*           (916) 551-1748             *
*                                      *
****************************************
```

```
*** CVCRK33R.DAT ***
CAVE CREEK/CAREFREE FIS
CH2M HILL PROJECT # LA027815.H1
MCFCD PROJECT # 88-53
100 YEAR FLOW CALCULATIONS FOR CAVE CREEK
CH2M HILL  RUN 3.3;
ORIGINAL MODEL WAS DEVELOPED BY FCDMC. MODIFIED BY CH2M HILL
FINAL REVISIONS BY FCDMC.
INITIAL AND UNIFORM LOSS METHOD (LOSSES BASED ON HYDRO SOIL GROUP)
CAVE CREEK BASIN 100-YR 24 HR RAINFALL = 5.0 IN.
STUDY AREA SUBBASINS 100-YR 24 HR RAINFALL = 4.81 IN.
BA = 112 SQUARE MILE : PRECIP. AREAL REDUCTION FACTOR = 85%
TIME OF CONCENTRATION ESTIMATED BY CH2M HILL -- REVISED BY FCDMC
MUSKINGUM X BASED ON CHANNEL VELOCITIES. K = 0.2
```

```
23 IO        OUTPUT CONTROL VARIABLES
                  IPRNT          3  PRINT CONTROL
                  IPLOT          0  PLOT CONTROL
                  QSCAL         0.  HYDROGRAPH PLOT SCALE

   IT        HYDROGRAPH TIME DATA
                   NMIN          5  MINUTES IN COMPUTATION INTERVAL
                  IDATE      1   0  STARTING DATE
                  ITIME       0000  STARTING TIME
                     NQ        300  NUMBER OF HYDROGRAPH ORDINATES
                 NDDATE      2   0  ENDING DATE
                 NDTIME       0055  ENDING TIME
                  ICENT         19  CENTURY MARK

            COMPUTATION INTERVAL     .08 HOURS
                 TOTAL TIME BASE   24.92 HOURS

      ENGLISH UNITS
           DRAINAGE AREA          SQUARE MILES
           PRECIPITATION DEPTH    INCHES
           LENGTH, ELEVATION      FEET
           FLOW                   CUBIC FEET PER SECOND
           STORAGE VOLUME         ACRE-FEET
           SURFACE AREA           ACRES
```

```
          TEMPERATURE          DEGREES FAHRENHEIT

   JP        MULTI-PLAN OPTION
                 NPLAN          1  NUMBER OF PLANS

   JR        MULTI-RATIO OPTION
                RATIOS OF PRECIPITATION
                .68       .90      1.00      1.19


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


        **************
        *            *
 25 KK  *        A1  *
        *            *
        **************
                      UPPER CAVE CREEK
                      RUNOFF FROM A1, THE RAINFALL DISTRIBUTION IS SCS TYPE II REDUCED
                      FOR THE CAVE CREEK BASIN AREA OF 112 SQ.MI.

 29 IN        TIME DATA FOR INPUT TIME SERIES
                 JXMIN          15  TIME INTERVAL IN MINUTES
                JXDATE      1   0  STARTING DATE
                JXTIME          0  STARTING TIME

          SUBBASIN RUNOFF DATA

   LA        SUBBASIN CHARACTERISTICS
                 TAREA       15.75  SUBBASIN AREA

             PRECIPITATION DATA

 30 PB           STORM        4.25  BASIN TOTAL PRECIPITATION

 31 PI         INCREMENTAL PRECIPITATION PATTERN
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .01       .00       .01
                 .01       .01       .01       .01       .01       .01       .01       .01       .03       .03
                 .03       .09       .09       .09       .01       .01       .01       .01       .01       .01
                 .01       .01       .01       .01       .01       .01       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                 .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00		

42 LU UNIFORM LOSS RATE

STRTL	.88	INITIAL LOSS
CNSTL	.13	UNIFORM LOSS RATE
RTIMP	.00	PERCENT IMPERVIOUS AREA

43 UD SCS DIMENSIONLESS UNITGRAPH

TLAG	1.42	LAG

***

UNIT HYDROGRAPH
87 END-OF-PERIOD ORDINATES

89.	207.	415.	652.	919.	1252.	1608.	2081.	2576.	3140.
3662.	4137.	4505.	4831.	5014.	5160.	5190.	5192.	5163.	5028.
4850.	4644.	4430.	4193.	3929.	3632.	3294.	2938.	2637.	2357.
2149.	1954.	1776.	1618.	1470.	1358.	1250.	1141.	1041.	952.
863.	774.	712.	652.	593.	539.	495.	450.	406.	372.
339.	307.	278.	256.	233.	211.	194.	178.	161.	147.
135.	123.	111.	102.	93.	84.	76.	70.	64.	58.
54.	51.	47.	44.	40.	36.	33.	29.	26.	23.
20.	17.	14.	11.	8.	5.	2.			

TOTAL RAINFALL = 4.25, TOTAL LOSS = 2.06, TOTAL EXCESS = 2.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
9918.	13.33	(CFS)	3671.	926.	892.	892.
		(INCHES)	2.167	2.187	2.187	2.187
		(AC-FT)	1820.	1837.	1837.	1837.

CUMULATIVE AREA = 15.75 SQ MI

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

HYDROGRAPH AT STATION A1
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 2.89, TOTAL LOSS = 1.70, TOTAL EXCESS = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
5795.	13.33	(CFS)	2007.	504.	486.	486.
		(INCHES)	1.185	1.190	1.190	1.190
		(AC-FT)	995.	1000.	1000.	1000.

CUMULATIVE AREA = 15.75 SQ MI

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

HYDROGRAPH AT STATION A1

FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.82, TOTAL LOSS = 1.95, TOTAL EXCESS = 1.88

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
8725.	13.33	(CFS)	3158.	795.	766.	766.
		(INCHES)	1.864	1.877	1.877	1.877
		(AC-FT)	1566.	1577.	1577.	1577.

CUMULATIVE AREA = 15.75 SQ MI

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

HYDROGRAPH AT STATION A1
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.25, TOTAL LOSS = 2.06, TOTAL EXCESS = 2.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
9918.	13.33	(CFS)	3671.	926.	892.	892.
		(INCHES)	2.167	2.187	2.187	2.187
		(AC-FT)	1820.	1837.	1837.	1837.

CUMULATIVE AREA = 15.75 SQ MI

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

HYDROGRAPH AT STATION A1
FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 5.06, TOTAL LOSS = 2.28, TOTAL EXCESS = 2.78

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
12101.	13.33	(CFS)	4631.	1176.	1133.	1133.
		(INCHES)	2.734	2.777	2.777	2.777
		(AC-FT)	2296.	2333.	2333.	2333.

CUMULATIVE AREA = 15.75 SQ MI

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          **************
          *            *
 44 KK    *        A2  *
          *            *
          **************
```

RUNOFF FROM A2

SUBBASIN RUNOFF DATA

46 BA SUBBASIN CHARACTERISTICS

TAREA 10.69 SUBBASIN AREA

PRECIPITATION DATA

B STORM 4.25 BASIN TOTAL PRECIPITATION

31 PI INCREMENTAL PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.01	.00	.01
.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00		

47 LU UNIFORM LOSS RATE

STRTL .65 INITIAL LOSS

CNSTL .13 UNIFORM LOSS RATE

RTIMP .00 PERCENT IMPERVIOUS AREA

48 UD SCS DIMENSIONLESS UNITGRAPH

TLAG 1.61 LAG

***

UNIT HYDROGRAPH

99 END-OF-PERIOD ORDINATES

47.	96.	206.	318.	460.	604.	794.	987.	1240.	1497.
1796.	2091.	2343.	2586.	2759.	2921.	3016.	3098.	3114.	3124.
3108.	3077.	2982.	2884.	2774.	2659.	2533.	2399.	2241.	2075.
1886.	1706.	1548.	1404.	1294.	1189.	1094.	1005.	926.	855.
797.	740.	682.	628.	581.	534.	487.	446.	414.	383.
351.	323.	300.	276.	252.	232.	215.	197.	180.	166.
154.	142.	130.	120.	111.	103.	94.	87.	81.	74.
68.	63.	58.	53.	48.	45.	42.	38.	35.	33.
31.	29.	27.	25.	24.	22.	20.	18.	16.	14.
13.	11.	10.	8.	6.	5.	3.	2.	0.	

TOTAL RAINFALL = 4.25, TOTAL LOSS = 2.01, TOTAL EXCESS = 2.24

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
23.	13.50	(CFS)	2518.	643.	620.	620.
		(INCHES)	2.190	2.238	2.238	2.238
		(AC-FT)	1249.	1276.	1276.	1276.

CUMULATIVE AREA = 10.69 SQ MI

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

HYDROGRAPH AT STATION A2
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 2.89, TOTAL LOSS = 1.56, TOTAL EXCESS = 1.33

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
3876.	13.50	(CFS)	1510.	382.	368.	368.
		(INCHES)	1.313	1.329	1.329	1.329
		(AC-FT)	749.	757.	757.	757.

CUMULATIVE AREA = 10.69 SQ MI

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

HYDROGRAPH AT STATION A2
FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.82, TOTAL LOSS = 1.88, TOTAL EXCESS = 1.95

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
5425.	13.50	(CFS)	2199.	560.	539.	539.
		(INCHES)	1.913	1.948	1.948	1.948
		(AC-FT)	1091.	1110.	1110.	1110.

CUMULATIVE AREA = 10.69 SQ MI

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

HYDROGRAPH AT STATION A2
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.25, TOTAL LOSS = 2.01, TOTAL EXCESS = 2.24

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
6123.	13.50	(CFS)	2518.	643.	620.	620.
		(INCHES)	2.190	2.238	2.238	2.238
		(AC-FT)	1249.	1276.	1276.	1276.

CUMULATIVE AREA = 10.69 SQ MI

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

HYDROGRAPH AT STATION A2
FOR PLAN 1, RATIO = 1.19

TAL RAINFALL = 5.06, TOTAL LOSS = 2.24, TOTAL EXCESS = 2.82

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
7452.	13.50	(CFS)	3140.	810.	780.	780.
		(INCHES)	2.731	2.816	2.816	2.816
		(AC-FT)	1557.	1606.	1606.	1606.

CUMULATIVE AREA = 10.69 SQ MI

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**************
*            *
*        A3  *
*            *
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49 KK

RUNOFF FROM A3

SUBBASIN RUNOFF DATA

3A SUBBASIN CHARACTERISTICS
TAREA 4.75 SUBBASIN AREA

PRECIPITATION DATA

30 PB STORM 4.25 BASIN TOTAL PRECIPITATION

31 PI INCREMENTAL PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.01	.00	.01
.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00		

52 LU UNIFORM LOSS RATE

STRTL .65 INITIAL LOSS
CNSTL .13 UNIFORM LOSS RATE
RTIMP .00 PERCENT IMPERVIOUS AREA

53 UD SCS DIMENSIONLESS UNITGRAPH

TLAG 1.49 LAG

***

UNIT HYDROGRAPH
91 END-OF-PERIOD ORDINATES

24.	54.	111.	174.	247.	332.	430.	549.	679.	830.
984.	1115.	1240.	1330.	1408.	1457.	1487.	1495.	1493.	1485.
1445.	1396.	1339.	1281.	1216.	1147.	1065.	977.	879.	791.
709.	646.	589.	539.	491.	450.	412.	383.	353.	323.
296.	272.	247.	223.	206.	189.	173.	158.	145.	133.
121.	111.	102.	93.	84.	77.	71.	65.	59.	55.
50.	46.	42.	39.	35.	32.	29.	27.	25.	22.
21.	19.	17.	16.	15.	14.	13.	12.	11.	10.
9.	8.	7.	6.	6.	5.	4.	3.	2.	2.
1.									

TOTAL RAINFALL = 4.25, TOTAL LOSS = 2.01, TOTAL EXCESS = 2.24

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
2896.	13.33	(CFS)	1124.	286.	275.	275.
		(INCHES)	2.200	2.238	2.238	2.238
		(AC-FT)	557.	567.	567.	567.

CUMULATIVE AREA = 4.75 SQ MI

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

HYDROGRAPH AT STATION A3
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 2.89, TOTAL LOSS = 1.56, TOTAL EXCESS = 1.33

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1840.	13.33	(CFS)	673.	170.	163.	163.
		(INCHES)	1.318	1.329	1.329	1.329
		(AC-FT)	334.	337.	337.	337.

CUMULATIVE AREA = 4.75 SQ MI

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

HYDROGRAPH AT STATION A3

FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.82, TOTAL LOSS = 1.88, TOTAL EXCESS = 1.95

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
2568.	13.33	(CFS)	981.	249.	240.	240.
		(INCHES)	1.921	1.948	1.948	1.948
		(AC-FT)	487.	493.	493.	493.

CUMULATIVE AREA = 4.75 SQ MI

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

HYDROGRAPH AT STATION A3
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.25, TOTAL LOSS = 2.01, TOTAL EXCESS = 2.24

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
2896.	13.33	(CFS)	1124.	286.	275.	275.
		(INCHES)	2.200	2.238	2.238	2.238
		(AC-FT)	557.	567.	567.	567.

CUMULATIVE AREA = 4.75 SQ MI

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

HYDROGRAPH AT STATION A3
FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 5.06, TOTAL LOSS = 2.24, TOTAL EXCESS = 2.82

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
3520.	13.33	(CFS)	1402.	360.	346.	346.
		(INCHES)	2.744	2.816	2.816	2.816
		(AC-FT)	695.	713.	713.	713.

CUMULATIVE AREA = 4.75 SQ MI

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          *            *
54 KK     *          1 *
          *            *
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HYDROGRAPH COMBINATION, ALL BASINS ABOVE 1

56 HC HYDROGRAPH COMBINATION
ICOMP 3 NUMBER OF HYDROGRAPHS TO COMBINE

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

HYDROGRAPH AT STATION 1
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
11476.	13.42	(CFS)	4190.	1056.	1017.	1017.
		(INCHES)	1.249	1.259	1.259	1.259
		(AC-FT)	2078.	2094.	2094.	2094.

CUMULATIVE AREA = 31.19 SQ MI

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

HYDROGRAPH AT STATION 1
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
16650.	13.33	(CFS)	6338.	1603.	1544.	1544.
		(INCHES)	1.889	1.912	1.912	1.912
		(AC-FT)	3143.	3180.	3180.	3180.

CUMULATIVE AREA = 31.19 SQ MI

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

HYDROGRAPH AT STATION 1
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
18860.	13.33	(CFS)	7313.	1855.	1787.	1787.
		(INCHES)	2.180	2.212	2.212	2.212
		(AC-FT)	3626.	3680.	3680.	3680.

CUMULATIVE AREA = 31.19 SQ MI

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

HYDROGRAPH AT STATION 1
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
22981.	13.33	(CFS)	9172.	2345.	2259.	2259.
		(INCHES)	2.734	2.796	2.796	2.796
		(AC-FT)	4548.	4652.	4652.	4652.

CUMULATIVE AREA = 31.19 SQ MI

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*            *
KK     *       R1  *
*            *
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ROUTING 1 TO 3

HYDROGRAPH ROUTING DATA

59 RM MUSKINGUM ROUTING

NSTPS	4	NUMBER OF SUBREACHES
AMSKK	.80	MUSKINGUM K
X	.20	MUSKINGUM X

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

HYDROGRAPH AT STATION R1
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
10721.	14.25	(CFS)	4182.	1056.	1017.	1017.
		(INCHES)	1.247	1.259	1.259	1.259
		(AC-FT)	2074.	2094.	2094.	2094.

CUMULATIVE AREA = 31.19 SQ MI

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

HYDROGRAPH AT STATION R1
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
15617.	14.17	(CFS)	6326.	1603.	1544.	1544.
		(INCHES)	1.886	1.912	1.912	1.912
		(AC-FT)	3137.	3180.	3180.	3180.

CUMULATIVE AREA = 31.19 SQ MI

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

HYDROGRAPH AT STATION R1
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
17714.	14.17	(CFS)	7298.	1855.	1787.	1787.
		(INCHES)	2.176	2.212	2.212	2.212
		(AC-FT)	3619.	3680.	3680.	3680.

CUMULATIVE AREA = 31.19 SQ MI

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

HYDROGRAPH AT STATION R1
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
21618.	14.17	(CFS)	9152.	2345.	2259.	2259.
		(INCHES)	2.728	2.796	2.796	2.796
		(AC-FT)	4538.	4652.	4652.	4652.

CUMULATIVE AREA = 31.19 SQ MI

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          *            *
60 KK     *        A4  *
          *            *
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RUNOFF FROM A4

SUBBASIN RUNOFF DATA

'A SUBBASIN CHARACTERISTICS

TAREA 10.47 SUBBASIN AREA

PRECIPITATION DATA

30 PB STORM 4.25 BASIN TOTAL PRECIPITATION

31 PI INCREMENTAL PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.01	.00	.01
.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00		

63 LU UNIFORM LOSS RATE

STRTL	.65	INITIAL LOSS
CNSTL	.13	UNIFORM LOSS RATE
RTIMP	.00	PERCENT IMPERVIOUS AREA

64 UD SCS DIMENSIONLESS UNITGRAPH

TLAG	1.43	LAG

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UNIT HYDROGRAPH
88 END-OF-PERIOD ORDINATES

58.	135.	271.	426.	601.	817.	1051.	1357.	1678.	2048.
2394.	2706.	2955.	3169.	3298.	3405.	3424.	3431.	3411.	3336.
3219.	3087.	2949.	2794.	2627.	2433.	2218.	1985.	1780.	1585.
1448.	1316.	1199.	1091.	994.	914.	843.	772.	703.	644.
586.	528.	481.	442.	403.	365.	336.	307.	278.	253.
231.	210.	189.	174.	160.	145.	132.	122.	111.	100.
92.	84.	77.	70.	64.	58.	52.	48.	44.	40.
37.	35.	32.	30.	28.	25.	23.	21.	18.	16.
14.	12.	10.	8.	6.	4.	3.	1.		

TAL RAINFALL = 4.25, TOTAL LOSS = 2.01, TOTAL EXCESS = 2.24

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
6597.	13.33	(CFS)	2482.	630.	607.	607.
		(INCHES)	2.204	2.238	2.238	2.238
		(AC-FT)	1231.	1249.	1249.	1249.

CUMULATIVE AREA = 10.47 SQ MI

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

HYDROGRAPH AT STATION A4
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 2.89, TOTAL LOSS = 1.56, TOTAL EXCESS = 1.33

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
4200.	13.33	(CFS)	1486.	374.	360.	360.
		(INCHES)	1.320	1.329	1.329	1.329
		(AC-FT)	737.	742.	742.	742.

CUMULATIVE AREA = 10.47 SQ MI

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

HYDROGRAPH AT STATION A4
FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.82, TOTAL LOSS = 1.88, TOTAL EXCESS = 1.95

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
5852.	13.33	(CFS)	2168.	548.	528.	528.
		(INCHES)	1.925	1.948	1.948	1.948
		(AC-FT)	1075.	1088.	1088.	1088.

CUMULATIVE AREA = 10.47 SQ MI

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

HYDROGRAPH AT STATION A4
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.25, TOTAL LOSS = 2.01, TOTAL EXCESS = 2.24

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
6597.	13.33	(CFS)	2482.	630.	607.	607.
		(INCHES)	2.204	2.238	2.238	2.238
		(AC-FT)	1231.	1249.	1249.	1249.

CUMULATIVE AREA = 10.47 SQ MI

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

HYDROGRAPH AT STATION A4
FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 5.06, TOTAL LOSS = 2.24, TOTAL EXCESS = 2.82

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
8014.	13.33	(CFS)	3097.	793.	764.	764.
		(INCHES)	2.750	2.816	2.816	2.816
		(AC-FT)	1536.	1573.	1573.	1573.

CUMULATIVE AREA = 10.47 SQ MI

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          *            *
 65 KK    *        A5  *
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RUNOFF FROM A5

SUBBASIN RUNOFF DATA

67 BA SUBBASIN CHARACTERISTICS

TAREA 3.43 SUBBASIN AREA

PRECIPITATION DATA

98 STORM 4.25 BASIN TOTAL PRECIPITATION

PI INCREMENTAL PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.01	.00	.01
.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00		

68 LU UNIFORM LOSS RATE

STRTL .65 INITIAL LOSS
CNSTL .13 UNIFORM LOSS RATE
RTIMP .00 PERCENT IMPERVIOUS AREA

69 UD SCS DIMENSIONLESS UNITGRAPH

TLAG 1.25 LAG

***

UNIT HYDROGRAPH
77 END-OF-PERIOD ORDINATES

25.	65.	122.	195.	278.	378.	504.	642.	799.	939.
1065.	1156.	1223.	1270.	1279.	1279.	1270.	1223.	1170.	1112.
1047.	976.	893.	798.	702.	619.	552.	495.	446.	401.
359.	329.	299.	269.	243.	218.	194.	175.	159.	142.
129.	116.	104.	93.	84.	75.	67.	61.	55.	49.
45.	40.	36.	33.	30.	26.	24.	21.	19.	17.
16.	14.	13.	12.	11.	10.	9.	8.	7.	6.
5.	5.	4.	3.	2.	1.	0.			

TOTAL RAINFALL = 4.25, TOTAL LOSS = 2.01, TOTAL EXCESS = 2.24

PEAK FLOW TIME MAXIMUM AVERAGE FLOW

(CFS)	(HR)		6-HR	24-HR	72-HR	24.92-HR
2405.	13.08	(CFS)	818.	206.	199.	199.
		(INCHES)	2.216	2.238	2.238	2.238
		(AC-FT)	405.	409.	409.	409.

CUMULATIVE AREA = 3.43 SQ MI

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HYDROGRAPH AT STATION A5
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 2.89, TOTAL LOSS = 1.56, TOTAL EXCESS = 1.33

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1540.	13.08	(CFS)	489.	123.	118.	118.
		(INCHES)	1.325	1.329	1.329	1.329
		(AC-FT)	242.	243.	243.	243.

CUMULATIVE AREA = 3.43 SQ MI

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

HYDROGRAPH AT STATION A5
FOR PLAN 1, RATIO = .90

TAL RAINFALL = 3.82, TOTAL LOSS = 1.88, TOTAL EXCESS = 1.95

AK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
2137.	13.08	(CFS)	714.	180.	173.	173.
		(INCHES)	1.934	1.948	1.948	1.948
		(AC-FT)	354.	356.	356.	356.

CUMULATIVE AREA = 3.43 SQ MI

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

HYDROGRAPH AT STATION A5
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.25, TOTAL LOSS = 2.01, TOTAL EXCESS = 2.24

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
2405.	13.08	(CFS)	818.	206.	199.	199.
		(INCHES)	2.216	2.238	2.238	2.238
		(AC-FT)	405.	409.	409.	409.

CUMULATIVE AREA = 3.43 SQ MI

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

HYDROGRAPH AT STATION A5
FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 5.06, TOTAL LOSS = 2.24, TOTAL EXCESS = 2.82

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
2916.	13.08	(CFS)	1021.	260.	250.	250.
		(INCHES)	2.767	2.816	2.816	2.816
		(AC-FT)	506.	515.	515.	515.

CUMULATIVE AREA = 3.43 SQ MI

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          *            *
 70 KK    *        R2  *
          *            *
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ROUTING 2 TO 3

HYDROGRAPH ROUTING DATA

72 RM MUSKINGUM ROUTING

NSTPS	1	NUMBER OF SUBREACHES
AMSKK	.16	MUSKINGUM K
X	.20	MUSKINGUM X

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

HYDROGRAPH AT STATION R2
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1517.	13.25	(CFS)	489.	123.	118.	118.
		(INCHES)	1.325	1.329	1.329	1.329
		(AC-FT)	242.	243.	243.	243.

CUMULATIVE AREA = 3.43 SQ MI

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

HYDROGRAPH AT STATION R2
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
[illegible]06.	13.25	(CFS)	713.	180.	173.	173.
		(INCHES)	1.934	1.948	1.948	1.948
		(AC-FT)	354.	356.	356.	356.

CUMULATIVE AREA = 3.43 SQ MI

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                HYDROGRAPH AT STATION      R2
                  FOR PLAN 1, RATIO = 1.00

PEAK FLOW    TIME                        MAXIMUM AVERAGE FLOW
  (CFS)      (HR)                 6-HR      24-HR      72-HR    24.92-HR
  2371.     13.25      (CFS)      817.       206.       199.       199.
                     (INCHES)    2.216      2.238      2.238      2.238
                      (AC-FT)     405.       409.       409.       409.

                    CUMULATIVE AREA =    3.43 SQ MI


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

                HYDROGRAPH AT STATION      R2
                  FOR PLAN 1, RATIO = 1.19

PEAK FLOW    TIME                        MAXIMUM AVERAGE FLOW
  (CFS)      (HR)                 6-HR      24-HR      72-HR    24.92-HR
  2875.     13.25      (CFS)     1020.       260.       250.       250.
                     (INCHES)    2.766      2.816      2.816      2.816
                      (AC-FT)     506.       515.       515.       515.

                    CUMULATIVE AREA =    3.43 SQ MI


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          *            *
 73 KK    *        A6  *
          *            *
          **************
                  RUNOFF FROM A6

             SUBBASIN RUNOFF DATA

 75 BA          SUBBASIN CHARACTERISTICS
                      TAREA        3.50  SUBBASIN AREA

                PRECIPITATION DATA

 30 PB                STORM        4.25  BASIN TOTAL PRECIPITATION

 31 PI            INCREMENTAL PRECIPITATION PATTERN
                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
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.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
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76 LU UNIFORM LOSS RATE

STRTL	.65	INITIAL LOSS
CNSTL	.13	UNIFORM LOSS RATE
RTIMP	.00	PERCENT IMPERVIOUS AREA

77 UD SCS DIMENSIONLESS UNITGRAPH

TLAG	1.26	LAG

***

UNIT HYDROGRAPH
78 END-OF-PERIOD ORDINATES

25.	64.	123.	195.	278.	378.	503.	640.	798.	941.
1071.	1163.	1233.	1283.	1294.	1296.	1287.	1245.	1193.	1135.
1071.	1002.	919.	826.	727.	644.	571.	513.	462.	415.
374.	341.	310.	280.	253.	228.	203.	182.	166.	149.
134.	122.	109.	98.	88.	79.	71.	64.	58.	52.
47.	43.	38.	35.	31.	28.	25.	23.	20.	18.
17.	15.	14.	13.	12.	11.	10.	9.	8.	7.
6.	5.	4.	3.	3.	2.	1.	0.		

TOTAL RAINFALL = 4.25, TOTAL LOSS = 2.01, TOTAL EXCESS = 2.24

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
(CFS)	(HR)		6-HR	24-HR	72-HR	24.92-HR
2437.	13.17	(CFS)	834.	211.	203.	203.
		(INCHES)	2.216	2.238	2.238	2.238
		(AC-FT)	414.	418.	418.	418.

CUMULATIVE AREA = 3.50 SQ MI

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

HYDROGRAPH AT STATION A6
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 2.89, TOTAL LOSS = 1.56, TOTAL EXCESS = 1.33

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1561.	13.17	(CFS)	499.	125.	120.	120.
		(INCHES)	1.325	1.329	1.329	1.329
		(AC-FT)	247.	248.	248.	248.

CUMULATIVE AREA = 3.50 SQ MI

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

HYDROGRAPH AT STATION A6
FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.82, TOTAL LOSS = 1.88, TOTAL EXCESS = 1.95

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
2165.	13.17	(CFS)	728.	183.	177.	177.
		(INCHES)	1.934	1.948	1.948	1.948
		(AC-FT)	361.	364.	364.	364.

CUMULATIVE AREA = 3.50 SQ MI

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

HYDROGRAPH AT STATION A6
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.25, TOTAL LOSS = 2.01, TOTAL EXCESS = 2.24

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
2437.	13.17	(CFS)	834.	211.	203.	203.
		(INCHES)	2.216	2.238	2.238	2.238
		(AC-FT)	414.	418.	418.	418.

CUMULATIVE AREA = 3.50 SQ MI

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

HYDROGRAPH AT STATION A6
FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 5.06, TOTAL LOSS = 2.24, TOTAL EXCESS = 2.82

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
2956.	13.17	(CFS)	1041.	265.	255.	255.
		(INCHES)	2.766	2.816	2.816	2.816
		(AC-FT)	516.	526.	526.	526.

CUMULATIVE AREA = 3.50 SQ MI

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*          3 *
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HYDROGRAPH COMBINATION, ALL BASINS ABOVE 3

80 HC HYDROGRAPH COMBINATION
ICOMP 4 NUMBER OF HYDROGRAPHS TO COMBINE

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

HYDROGRAPH AT STATION 3
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
15455.	13.92	(CFS)	6626.	1677.	1616.	1616.
		(INCHES)	1.268	1.284	1.284	1.284
		(AC-FT)	3286.	3327.	3327.	3327.

CUMULATIVE AREA = 48.59 SQ MI

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HYDROGRAPH AT STATION 3
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
22440.	13.92	(CFS)	9882.	2515.	2422.	2422.
		(INCHES)	1.891	1.925	1.925	1.925
		(AC-FT)	4900.	4988.	4988.	4988.

CUMULATIVE AREA = 48.59 SQ MI

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HYDROGRAPH AT STATION 3
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
25476.	13.92	(CFS)	11371.	2902.	2795.	2795.
		(INCHES)	2.176	2.221	2.221	2.221
		(AC-FT)	5639.	5756.	5756.	5756.

CUMULATIVE AREA = 48.59 SQ MI

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

HYDROGRAPH AT STATION 3
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
144.	13.92	(CFS)	14235.	3663.	3528.	3528.
		(INCHES)	2.724	2.804	2.804	2.804
		(AC-FT)	7059.	7265.	7265.	7265.

CUMULATIVE AREA = 48.59 SQ MI

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          *            *
 81 KK    *        R3  *
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ROUTING 3 TO 10,

HYDROGRAPH ROUTING DATA

83 RM MUSKINGUM ROUTING

NSTPS	6	NUMBER OF SUBREACHES
AMSKK	.75	MUSKINGUM K
X	.20	MUSKINGUM X

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

HYDROGRAPH AT STATION R3
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
15003.	14.67	(CFS)	6615.	1677.	1616.	1616.
		(INCHES)	1.266	1.284	1.284	1.284
		(AC-FT)	3280.	3327.	3327.	3327.

CUMULATIVE AREA = 48.59 SQ MI

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

HYDROGRAPH AT STATION R3
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
21809.	14.67	(CFS)	9867.	2515.	2422.	2422.
		(INCHES)	1.888	1.925	1.925	1.925
		(AC-FT)	4893.	4988.	4988.	4988.

CUMULATIVE AREA = 48.59 SQ MI

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

HYDROGRAPH AT STATION R3
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
24775.	14.67	(CFS)	11354.	2902.	2795.	2795.
		(INCHES)	2.173	2.221	2.221	2.221
		(AC-FT)	5630.	5756.	5756.	5756.

CUMULATIVE AREA = 48.59 SQ MI

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

HYDROGRAPH AT STATION R3
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
30311.	14.67	(CFS)	14214.	3663.	3528.	3528.
		(INCHES)	2.720	2.804	2.804	2.804
		(AC-FT)	7048.	7265.	7265.	7265.

CUMULATIVE AREA = 48.59 SQ MI

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              *            *
84 KK         *        A7  *
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RUNOFF FROM A7

SUBBASIN RUNOFF DATA

86 BA SUBBASIN CHARACTERISTICS
TAREA 11.62 SUBBASIN AREA

PRECIPITATION DATA

30 PB STORM 4.25 BASIN TOTAL PRECIPITATION

31 PI INCREMENTAL PRECIPITATION PATTERN

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.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
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87 LU UNIFORM LOSS RATE

STRTL	.65	INITIAL LOSS
CNSTL	.13	UNIFORM LOSS RATE
RTIMP	.00	PERCENT IMPERVIOUS AREA

88 UD SCS DIMENSIONLESS UNITGRAPH

TLAG	1.33	LAG

***

UNIT HYDROGRAPH
82 END-OF-PERIOD ORDINATES

75.	184.	358.	568.	796.	1094.	1434.	1832.	2287.	2750.
3148.	3486.	3760.	3930.	4056.	4081.	4079.	4054.	3918.	3763.
3589.	3400.	3201.	2954.	2690.	2392.	2127.	1879.	1705.	1540.
1391.	1260.	1139.	1048.	957.	866.	788.	714.	639.	577.
527.	477.	430.	393.	356.	318.	290.	263.	235.	214.
195.	176.	159.	146.	132.	118.	108.	98.	88.	80.
73.	65.	59.	54.	49.	45.	42.	39.	36.	33.
30.	27.	24.	21.	18.	16.	13.	11.	8.	6.
3.	1.								

TOTAL RAINFALL = 4.25, TOTAL LOSS = 2.01, TOTAL EXCESS = 2.24

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
7758.	13.17	(CFS)	2764.	699.	673.	673.
		(INCHES)	2.211	2.238	2.238	2.238
		(AC-FT)	1370.	1387.	1387.	1387.

CUMULATIVE AREA = 11.62 SQ MI

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

HYDROGRAPH AT STATION A7
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 2.89, TOTAL LOSS = 1.56, TOTAL EXCESS = 1.33

PEAK FLOW TIME MAXIMUM AVERAGE FLOW

(CFS)	(HR)		6-HR	24-HR	72-HR	24.92-HR
4955.	13.17	(CFS)	1653.	415.	400.	400.
		(INCHES)	1.323	1.329	1.329	1.329
		(AC-FT)	820.	823.	823.	823.

CUMULATIVE AREA = 11.62 SQ MI

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HYDROGRAPH AT STATION A7
FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.82, TOTAL LOSS = 1.88, TOTAL EXCESS = 1.95

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
6888.	13.17	(CFS)	2413.	609.	586.	586.
		(INCHES)	1.930	1.948	1.948	1.948
		(AC-FT)	1196.	1207.	1207.	1207.

CUMULATIVE AREA = 11.62 SQ MI

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HYDROGRAPH AT STATION A7
FOR PLAN 1, RATIO = 1.00

TAL RAINFALL = 4.25, TOTAL LOSS = 2.01, TOTAL EXCESS = 2.24

K FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
7758.	13.17	(CFS)	2764.	699.	673.	673.
		(INCHES)	2.211	2.238	2.238	2.238
		(AC-FT)	1370.	1387.	1387.	1387.

CUMULATIVE AREA = 11.62 SQ MI

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

HYDROGRAPH AT STATION A7
FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 5.06, TOTAL LOSS = 2.24, TOTAL EXCESS = 2.82

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
9415.	13.17	(CFS)	3449.	880.	848.	848.
		(INCHES)	2.760	2.816	2.816	2.816
		(AC-FT)	1710.	1745.	1745.	1745.

CUMULATIVE AREA = 11.62 SQ MI

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KK    *      10  *
*            *
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HYDROGRAPH COMBINATION, ALL BASINS ABOVE 10

91 HC HYDROGRAPH COMBINATION

ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

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

HYDROGRAPH AT STATION 10
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
16613.	14.50	(CFS)	8204.	2092.	2015.	2015.
		(INCHES)	1.267	1.292	1.292	1.292
		(AC-FT)	4068.	4150.	4150.	4150.

CUMULATIVE AREA = 60.21 SQ MI

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HYDROGRAPH AT STATION 10
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
24246.	14.50	(CFS)	12176.	3123.	3008.	3008.
		(INCHES)	1.880	1.929	1.929	1.929
		(AC-FT)	6038.	6195.	6195.	6195.

CUMULATIVE AREA = 60.21 SQ MI

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HYDROGRAPH AT STATION 10
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
27603.	14.50	(CFS)	13998.	3601.	3469.	3469.
		(INCHES)	2.161	2.224	2.224	2.224
		(AC-FT)	6941.	7143.	7143.	7143.

CUMULATIVE AREA = 60.21 SQ MI

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

HYDROGRAPH AT STATION 10
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
33871.	14.50	(CFS)	17510.	4543.	4376.	4376.
		(INCHES)	2.704	2.806	2.806	2.806
		(AC-FT)	8683.	9011.	9011.	9011.

CUMULATIVE AREA = 60.21 SQ MI

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          *            *
92 KK     *       R10  *
          *            *
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ROUTING 10 TO 23

HYDROGRAPH ROUTING DATA

94 RM MUSKINGUM ROUTING

NSTPS	1	NUMBER OF SUBREACHES
AMSKK	.06	MUSKINGUM K
X	.20	MUSKINGUM X

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

HYDROGRAPH AT STATION R10
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
16605.	14.58	(CFS)	8203.	2092.	2015.	2015.
		(INCHES)	1.267	1.292	1.292	1.292
		(AC-FT)	4067.	4150.	4150.	4150.

CUMULATIVE AREA = 60.21 SQ MI

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HYDROGRAPH AT STATION R10
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
24234.	14.58	(CFS)	12176.	3123.	3008.	3008.
		(INCHES)	1.880	1.929	1.929	1.929
		(AC-FT)	6038.	6195.	6195.	6195.

CUMULATIVE AREA = 60.21 SQ MI

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HYDROGRAPH AT STATION R10
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
[illegible]588.	14.58	(CFS)	13997.	3601.	3469.	3469.
		(INCHES)	2.161	2.224	2.224	2.224
		(AC-FT)	6940.	7143.	7143.	7143.

CUMULATIVE AREA = 60.21 SQ MI

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

HYDROGRAPH AT STATION R10
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
33851.	14.58	(CFS)	17508.	4543.	4376.	4376.
		(INCHES)	2.704	2.806	2.806	2.806
		(AC-FT)	8682.	9011.	9011.	9011.

CUMULATIVE AREA = 60.21 SQ MI

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              *            *
95 KK         *        E1  *
              *            *
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RUNOFF FROM E1, THE RAINFALL DEPTH IS 4.09 IN. (LOWER BASIN) AND THE
DISTRIBUTION IS SCS TYPE II WITH 85% AREAL REDUCTION

SUBBASIN RUNOFF DATA

99 BA SUBBASIN CHARACTERISTICS
TAREA .51 SUBBASIN AREA

PRECIPITATION DATA

98 PB STORM 4.09 BASIN TOTAL PRECIPITATION

31 PI INCREMENTAL PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.01	.00	.01
.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00		

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100 LU          UNIFORM LOSS RATE
                     STRTL        .75  INITIAL LOSS
                     CNSTL        .14  UNIFORM LOSS RATE
                     RTIMP        .00  PERCENT IMPERVIOUS AREA

101 UD          SCS DIMENSIONLESS UNITGRAPH
                      TLAG        .25  LAG

                                                  ***

                                              UNIT HYDROGRAPH
                                          17 END-OF-PERIOD ORDINATES
          150.     512.     815.     815.     635.     380.     237.     153.      95.      60.
           37.      24.      15.       9.       6.       4.       1.

   TOTAL RAINFALL =    4.09, TOTAL LOSS =    2.02, TOTAL EXCESS =    2.07

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
   964.     12.17       (CFS)      114.         28.         27.         27.
                      (INCHES)    2.074       2.074       2.074       2.074
                      (AC-FT)      56.         56.         56.         56.

                      CUMULATIVE AREA =     .51 SQ MI


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

                     HYDROGRAPH AT STATION       E1
                       FOR PLAN 1, RATIO =  .68

   TOTAL RAINFALL =    2.78, TOTAL LOSS =    1.59, TOTAL EXCESS =    1.19

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
   439.     12.17       (CFS)       65.         16.         16.         16.
                      (INCHES)    1.188       1.188       1.188       1.188
                      (AC-FT)      32.         32.         32.         32.

                      CUMULATIVE AREA =     .51 SQ MI
```

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

                    HYDROGRAPH AT STATION       E1
                      FOR PLAN 1, RATIO =  .90

  TOTAL RAINFALL =    3.68, TOTAL LOSS =    1.88, TOTAL EXCESS =    1.80

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   863.     12.17        (CFS)       99.         25.         24.         24.
                       (INCHES)    1.799       1.799       1.799       1.799
                       (AC-FT)      49.         49.         49.         49.

                      CUMULATIVE AREA =     .51 SQ MI


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

                    HYDROGRAPH AT STATION       E1
                      FOR PLAN 1, RATIO = 1.00

  TOTAL RAINFALL =    4.09, TOTAL LOSS =    2.02, TOTAL EXCESS =    2.07

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   964.     12.17        (CFS)      114.         28.         27.         27.
                       (INCHES)    2.074       2.074       2.074       2.074
                       (AC-FT)      56.         56.         56.         56.

                      CUMULATIVE AREA =     .51 SQ MI


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

                    HYDROGRAPH AT STATION       E1
                      FOR PLAN 1, RATIO = 1.19

  TOTAL RAINFALL =    4.87, TOTAL LOSS =    2.26, TOTAL EXCESS =    2.61

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
  1156.     12.17        (CFS)      143.         36.         34.         34.
                       (INCHES)    2.609       2.609       2.609       2.609
                       (AC-FT)      71.         71.         71.         71.

                      CUMULATIVE AREA =     .51 SQ MI


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


          **************
          *            *
KK        *        B3  *
          *            *
          **************
                    RUNOFF FROM BASIN B3
```

BEGIN COTTONWOOD

SUBBASIN RUNOFF DATA

A SUBBASIN CHARACTERISTICS

TAREA 1.33 SUBBASIN AREA

PRECIPITATION DATA

98 PB STORM 4.09 BASIN TOTAL PRECIPITATION

31 PI INCREMENTAL PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.01	.00	.01
.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00		

106 LU UNIFORM LOSS RATE

STRTL .75 INITIAL LOSS

CNSTL .08 UNIFORM LOSS RATE

RTIMP .00 PERCENT IMPERVIOUS AREA

107 UD SCS DIMENSIONLESS UNITGRAPH

TLAG .82 LAG

***

UNIT HYDROGRAPH

51 END-OF-PERIOD ORDINATES

22.	71.	135.	220.	331.	465.	584.	672.	726.	744.
742.	712.	664.	610.	544.	465.	385.	322.	274.	234.
201.	174.	149.	127.	107.	93.	79.	68.	57.	49.
41.	36.	30.	26.	22.	19.	16.	14.	12.	10.
9.	8.	7.	6.	5.	4.	3.	3.	2.	1.
1.									

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.70, TOTAL EXCESS = 2.39

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1276.	12.67	(CFS)	338.	85.	82.	82.
		(INCHES)	2.365	2.389	2.389	2.389
		(AC-FT)	168.	169.	169.	169.

CUMULATIVE AREA = 1.33 SQ MI

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

HYDROGRAPH AT STATION B3
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 2.78, TOTAL LOSS = 1.44, TOTAL EXCESS = 1.34

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
816.	12.67	(CFS)	192.	48.	46.	46.
		(INCHES)	1.341	1.342	1.342	1.342
		(AC-FT)	95.	95.	95.	95.

CUMULATIVE AREA = 1.33 SQ MI

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

HYDROGRAPH AT STATION B3
FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.68, TOTAL LOSS = 1.62, TOTAL EXCESS = 2.06

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1139.	12.67	(CFS)	293.	74.	71.	71.
		(INCHES)	2.050	2.058	2.058	2.058
		(AC-FT)	145.	146.	146.	146.

CUMULATIVE AREA = 1.33 SQ MI

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

HYDROGRAPH AT STATION B3
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.70, TOTAL EXCESS = 2.39

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1276.	12.67	(CFS)	338.	85.	82.	82.
		(INCHES)	2.365	2.389	2.389	2.389
		(AC-FT)	168.	169.	169.	169.

CUMULATIVE AREA = 1.33 SQ MI

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

HYDROGRAPH AT STATION B3
FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 4.87, TOTAL LOSS = 1.83, TOTAL EXCESS = 3.04

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1533.	12.67	(CFS)	421.	109.	105.	105.
		(INCHES)	2.942	3.036	3.036	3.036
		(AC-FT)	209.	215.	215.	215.

CUMULATIVE AREA = 1.33 SQ MI

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              **************
              *            *
108 KK        *        B2  *
              *            *
              **************
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RUNOFF FROM B2

SUBBASIN RUNOFF DATA

JA SUBBASIN CHARACTERISTICS
TAREA .31 SUBBASIN AREA

PRECIPITATION DATA

98 PB STORM 4.09 BASIN TOTAL PRECIPITATION

31 PI INCREMENTAL PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.01	.00	.01
.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00		

111 LU UNIFORM LOSS RATE

STRTL	.75	INITIAL LOSS
CNSTL	.08	UNIFORM LOSS RATE
RTIMP	.00	PERCENT IMPERVIOUS AREA

112 UD SCS DIMENSIONLESS UNITGRAPH

TLAG	.19	LAG

***

UNIT HYDROGRAPH
13 END-OF-PERIOD ORDINATES

169.	543.	640.	478.	252.	143.	80.	44.	24.	14.
8.	5.	2.							

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.70, TOTAL EXCESS = 2.39

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
690.	12.08	(CFS)	79.	20.	19.	19.
		(INCHES)	2.376	2.389	2.389	2.389
		(AC-FT)	39.	40.	40.	40.

CUMULATIVE AREA = .31 SQ MI

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

HYDROGRAPH AT STATION B2
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 2.78, TOTAL LOSS = 1.44, TOTAL EXCESS = 1.34

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
463.	12.08	(CFS)	45.	11.	11.	11.
		(INCHES)	1.342	1.342	1.342	1.342
		(AC-FT)	22.	22.	22.	22.

CUMULATIVE AREA = .31 SQ MI

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

HYDROGRAPH AT STATION B2
FOR PLAN 1, RATIO = .90

AL RAINFALL = 3.68, TOTAL LOSS = 1.62, TOTAL EXCESS = 2.06

K FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
619.	12.08	(CFS)	69.	17.	17.	17.

```
                    (INCHES)     2.056       2.058       2.058       2.058
                     (AC-FT)      34.         34.         34.         34.

                    CUMULATIVE AREA =     .31 SQ MI


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

                     HYDROGRAPH AT STATION       B2
                       FOR PLAN 1, RATIO = 1.00

  TOTAL RAINFALL =    4.09, TOTAL LOSS =    1.70, TOTAL EXCESS =    2.39

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
   690.      12.08       (CFS)      79.         20.         19.         19.
                       (INCHES)    2.376       2.389       2.389       2.389
                       (AC-FT)      39.         40.         40.         40.

                    CUMULATIVE AREA =     .31 SQ MI


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

                     HYDROGRAPH AT STATION       B2
                       FOR PLAN 1, RATIO = 1.19

  TOTAL RAINFALL =    4.87, TOTAL LOSS =    1.83, TOTAL EXCESS =    3.04

  FLOW      TIME                          MAXIMUM AVERAGE FLOW
 rS)        (HR)                 6-HR       24-HR       72-HR     24.92-HR
   824.      12.08       (CFS)      99.         25.         24.         24.
                       (INCHES)    2.961       3.036       3.036       3.036
                       (AC-FT)      49.         50.         50.         50.

                    CUMULATIVE AREA =     .31 SQ MI


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


          **************
          *            *
113 KK    *       14A  *
          *            *
          **************
                    COMBINING HYDROGRAPHS

115 HC          HYDROGRAPH COMBINATION
                     ICOMP          2  NUMBER OF HYDROGRAPHS TO COMBINE

                                                        ***

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

                     HYDROGRAPH AT STATION      14A
                       FOR PLAN 1, RATIO =  .68
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PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
874.	12.67	(CFS)	237.	59.	57.	57.
		(INCHES)	1.341	1.342	1.342	1.342
		(AC-FT)	117.	117.	117.	117.

CUMULATIVE AREA = 1.64 SQ MI

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

HYDROGRAPH AT STATION 14A
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1221.	12.67	(CFS)	361.	91.	87.	87.
		(INCHES)	2.049	2.058	2.058	2.058
		(AC-FT)	179.	180.	180.	180.

CUMULATIVE AREA = 1.64 SQ MI

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

HYDROGRAPH AT STATION 14A
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
69.	12.67	(CFS)	417.	105.	101.	101.
		(INCHES)	2.363	2.389	2.389	2.389
		(AC-FT)	207.	209.	209.	209.

CUMULATIVE AREA = 1.64 SQ MI

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

HYDROGRAPH AT STATION 14A
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1646.	12.67	(CFS)	518.	134.	129.	129.
		(INCHES)	2.939	3.036	3.036	3.036
		(AC-FT)	257.	266.	266.	266.

CUMULATIVE AREA = 1.64 SQ MI

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              **************
              *            *
116 KK        *     R14A   *
              *            *
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ROUTING 14A TO 12A

HYDROGRAPH ROUTING DATA

RM MUSKINGUM ROUTING

NSTPS	1	NUMBER OF SUBREACHES
AMSKK	.10	MUSKINGUM K
X	.20	MUSKINGUM X

***

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

HYDROGRAPH AT STATION R14A
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
867.	12.75	(CFS)	237.	59.	57.	57.
		(INCHES)	1.341	1.342	1.342	1.342
		(AC-FT)	117.	117.	117.	117.

CUMULATIVE AREA = 1.64 SQ MI

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

HYDROGRAPH AT STATION R14A
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1213.	12.75	(CFS)	361.	91.	87.	87.
		(INCHES)	2.049	2.058	2.058	2.058
		(AC-FT)	179.	180.	180.	180.

CUMULATIVE AREA = 1.64 SQ MI

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

HYDROGRAPH AT STATION R14A
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1360.	12.75	(CFS)	417.	105.	101.	101.
		(INCHES)	2.363	2.389	2.389	2.389
		(AC-FT)	207.	209.	209.	209.

CUMULATIVE AREA = 1.64 SQ MI

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

HYDROGRAPH AT STATION R14A
FOR PLAN 1, RATIO = 1.19

PEAK FLOW TIME MAXIMUM AVERAGE FLOW

(CFS)	(HR)		6-HR	24-HR	72-HR	24.92-HR
1635.	12.75	(CFS)	518.	134.	129.	129.
		(INCHES)	2.939	3.036	3.036	3.036
		(AC-FT)	257.	266.	266.	266.

CUMULATIVE AREA = 1.64 SQ MI

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          **************
          *            *
119 KK    *        B4  *
          *            *
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RUNOFF FROM B4

SUBBASIN RUNOFF DATA

121 BA SUBBASIN CHARACTERISTICS

TAREA .56 SUBBASIN AREA

PRECIPITATION DATA

98 PB STORM 4.09 BASIN TOTAL PRECIPITATION

74 PI INCREMENTAL PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.01	.00	.01
.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00		

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122 LU          UNIFORM LOSS RATE
                     STRTL        .75  INITIAL LOSS
                     CNSTL        .08  UNIFORM LOSS RATE
                     RTIMP        .00  PERCENT IMPERVIOUS AREA

UD              SCS DIMENSIONLESS UNITGRAPH
                      TLAG        .22  LAG

                                                    ***

                                                UNIT HYDROGRAPH
                                           15 END-OF-PERIOD ORDINATES
            220.     746.     1032.     911.     590.     337.     206.     122.     72.     43.
             26.      15.       10.       6.       2.

   TOTAL RAINFALL =    4.09, TOTAL LOSS =    1.70, TOTAL EXCESS =    2.39

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
   1167.     12.08       (CFS)     143.         36.         35.         35.
                       (INCHES)   2.375       2.389       2.389       2.389
                        (AC-FT)     71.         71.         71.         71.

                      CUMULATIVE AREA =     .56 SQ MI


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

                      HYDROGRAPH AT STATION       B4
                        FOR PLAN 1, RATIO =  .68

   TOTAL RAINFALL =    2.78, TOTAL LOSS =    1.44, TOTAL EXCESS =    1.34

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
    782.     12.08       (CFS)      81.         20.         19.         19.
                       (INCHES)   1.342       1.342       1.342       1.342
                        (AC-FT)     40.         40.         40.         40.

                      CUMULATIVE AREA =     .56 SQ MI


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

                      HYDROGRAPH AT STATION       B4
                        FOR PLAN 1, RATIO =  .90

   TOTAL RAINFALL =    3.68, TOTAL LOSS =    1.62, TOTAL EXCESS =    2.06

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
   1047.     12.08       (CFS)     124.         31.         30.         30.
                       (INCHES)   2.056       2.058       2.058       2.058
                        (AC-FT)     61.         61.         61.         61.

                      CUMULATIVE AREA =     .56 SQ MI


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

HYDROGRAPH AT STATION B4
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.70, TOTAL EXCESS = 2.39

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1167.	12.08	(CFS)	143.	36.	35.	35.
		(INCHES)	2.375	2.389	2.389	2.389
		(AC-FT)	71.	71.	71.	71.

CUMULATIVE AREA = .56 SQ MI

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

HYDROGRAPH AT STATION B4
FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 4.87, TOTAL LOSS = 1.83, TOTAL EXCESS = 3.04

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1394.	12.08	(CFS)	178.	46.	44.	44.
		(INCHES)	2.960	3.036	3.036	3.036
		(AC-FT)	88.	91.	91.	91.

CUMULATIVE AREA = .56 SQ MI

*** ***

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          **************
          *            *
124 KK    *        B1  *
          *            *
          **************
```

RUNOFF FROM B1

SUBBASIN RUNOFF DATA

126 BA SUBBASIN CHARACTERISTICS
TAREA 6.11 SUBBASIN AREA

PRECIPITATION DATA

98 PB STORM 4.09 BASIN TOTAL PRECIPITATION

31 PI INCREMENTAL PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.01	.00	.01
.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00		

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127 LU          UNIFORM LOSS RATE
                     STRTL        .75  INITIAL LOSS
                     CNSTL        .08  UNIFORM LOSS RATE
                     RTIMP        .00  PERCENT IMPERVIOUS AREA

128 UD          SCS DIMENSIONLESS UNITGRAPH
                      TLAG        .55  LAG

                                                  ***

                                              UNIT HYDROGRAPH
                                         35 END-OF-PERIOD ORDINATES
          292.     866.    1726.    2946.    4114.    4775.    4982.    4859.    4404.    3849.
         3097.    2344.    1853.    1467.    1192.     953.     742.     598.     477.     375.
          298.     238.     189.     150.     121.      95.      75.      60.      50.      41.
           33.      25.      18.      11.       4.

   TOTAL RAINFALL =    4.09, TOTAL LOSS =    1.70, TOTAL EXCESS =    2.39

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   7708.     12.42        (CFS)    1558.       393.        378.        378.
                         (INCHES)  2.370      2.389       2.389       2.389
                         (AC-FT)    772.       779.        779.        779.

                         CUMULATIVE AREA =    6.11 SQ MI


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

                         HYDROGRAPH AT STATION       B1
                           FOR PLAN 1, RATIO =  .68

   TAL RAINFALL =    2.78, TOTAL LOSS =    1.44, TOTAL EXCESS =    1.34

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   5041.     12.42        (CFS)     882.       220.        212.        212.
```

(INCHES)	1.342	1.342	1.342	1.342
(AC-FT)	437.	437.	437.	437.

CUMULATIVE AREA = 6.11 SQ MI

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

HYDROGRAPH AT STATION B1
FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.68, TOTAL LOSS = 1.62, TOTAL EXCESS = 2.06

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
6901.	12.42	(CFS)	1349.	338.	326.	326.
		(INCHES)	2.053	2.058	2.058	2.058
		(AC-FT)	669.	671.	671.	671.

CUMULATIVE AREA = 6.11 SQ MI

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

HYDROGRAPH AT STATION B1
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.70, TOTAL EXCESS = 2.39

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
7708.	12.42	(CFS)	1558.	393.	378.	378.
		(INCHES)	2.370	2.389	2.389	2.389
		(AC-FT)	772.	779.	779.	779.

CUMULATIVE AREA = 6.11 SQ MI

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

HYDROGRAPH AT STATION B1
FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 4.87, TOTAL LOSS = 1.83, TOTAL EXCESS = 3.04

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
9233.	12.42	(CFS)	1939.	499.	480.	480.
		(INCHES)	2.951	3.036	3.036	3.036
		(AC-FT)	962.	989.	989.	989.

CUMULATIVE AREA = 6.11 SQ MI

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          *           *
129 KK    *      12A  *
          *           *
          **************
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COMBINING B4, B3+2 AND B1

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131 HC        HYDROGRAPH COMBINATION
                   ICOMP          3  NUMBER OF HYDROGRAPHS TO COMBINE

                                                          ***

   ***          ***          ***          ***          ***
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HYDROGRAPH AT STATION 12A
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
6082.	12.42	(CFS)	1199.	300.	289.	289.
		(INCHES)	1.341	1.342	1.342	1.342
		(AC-FT)	595.	595.	595.	595.

CUMULATIVE AREA = 8.31 SQ MI

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   ***          ***          ***          ***          ***
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HYDROGRAPH AT STATION 12A
FOR PLAN 1, RATIO = .90

FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
8384.	12.42	(CFS)	1834.	460.	443.	443.
		(INCHES)	2.052	2.058	2.058	2.058
		(AC-FT)	910.	912.	912.	912.

CUMULATIVE AREA = 8.31 SQ MI

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   ***          ***          ***          ***          ***
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HYDROGRAPH AT STATION 12A
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
9373.	12.42	(CFS)	2117.	534.	514.	514.
		(INCHES)	2.369	2.389	2.389	2.389
		(AC-FT)	1050.	1059.	1059.	1059.

CUMULATIVE AREA = 8.31 SQ MI

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   ***          ***          ***          ***          ***
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HYDROGRAPH AT STATION 12A
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)	MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR

11238.	12.42	(CFS)	2634.	678.	653.	653.
		(INCHES)	2.947	3.036	3.036	3.036
		(AC-FT)	1306.	1345.	1345.	1345.

CUMULATIVE AREA = 8.31 SQ MI

*** ***

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          **************
          *            *
132 KK    *     R12A   *
          *            *
          **************
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ROUTING 12A TO 11A

HYDROGRAPH ROUTING DATA

134 RM MUSKINGUM ROUTING

NSTPS	2	NUMBER OF SUBREACHES
AMSKK	.04	MUSKINGUM K
X	.20	MUSKINGUM X

***

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

HYDROGRAPH AT STATION R12A
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
6087.	12.42	(CFS)	1199.	300.	289.	289.
		(INCHES)	1.341	1.342	1.342	1.342
		(AC-FT)	595.	595.	595.	595.

CUMULATIVE AREA = 8.31 SQ MI

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

HYDROGRAPH AT STATION R12A
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
8409.	12.42	(CFS)	1834.	460.	443.	443.
		(INCHES)	2.052	2.058	2.058	2.058
		(AC-FT)	910.	912.	912.	912.

CUMULATIVE AREA = 8.31 SQ MI

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

HYDROGRAPH AT STATION R12A
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
[illegible]01.	12.42	(CFS)	2117.	534.	514.	514.
		(INCHES)	2.369	2.389	2.389	2.389
		(AC-FT)	1050.	1059.	1059.	1059.

CUMULATIVE AREA = 8.31 SQ MI

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

HYDROGRAPH AT STATION R12A
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
11272.	12.42	(CFS)	2634.	678.	653.	653.
		(INCHES)	2.947	3.036	3.036	3.036
		(AC-FT)	1306.	1345.	1345.	1345.

CUMULATIVE AREA = 8.31 SQ MI

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*            *
KK    *      B5  *
*            *
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RUNOFF FROM B5

SUBBASIN RUNOFF DATA

137 BA SUBBASIN CHARACTERISTICS
TAREA .49 SUBBASIN AREA

PRECIPITATION DATA

98 PB STORM 4.09 BASIN TOTAL PRECIPITATION

31 PI INCREMENTAL PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.01	.00	.01
.01	.01	.01	.01	.01	.01	.01	.01	.03	.03

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.03    .09    .09    .09    .01    .01    .01    .01    .01    .01
.01    .01    .01    .01    .01    .01    .00    .00    .00    .00
.00    .00    .00    .00    .00    .00    .00    .00    .00    .00
.00    .00    .00    .00    .00    .00    .00    .00    .00    .00
.00    .00    .00    .00    .00    .00    .00    .00    .00    .00
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.00    .00    .00    .00    .00    .00    .00    .00    .00    .00
.00    .00    .00    .00    .00    .00    .00    .00
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138 LU        UNIFORM LOSS RATE
                   STRTL        .75  INITIAL LOSS
                   CNSTL        .08  UNIFORM LOSS RATE
                   RTIMP        .00  PERCENT IMPERVIOUS AREA

139 UD        SCS DIMENSIONLESS UNITGRAPH
                    TLAG        .22  LAG

                                                  ***

                                          UNIT HYDROGRAPH
                                     15 END-OF-PERIOD ORDINATES
          193.     653.     903.     797.     516.     295.     180.     107.     63.     37.
           23.      13.       8.       5.       2.

 TOTAL RAINFALL =    4.09, TOTAL LOSS =    1.70, TOTAL EXCESS =    2.39

PEAK FLOW    TIME                          MAXIMUM AVERAGE FLOW
  (CFS)      (HR)                  6-HR      24-HR      72-HR    24.92-HR
   1021.    12.08       (CFS)      125.        31.        30.        30.
                      (INCHES)    2.375      2.389      2.389      2.389
                       (AC-FT)     62.        62.        62.        62.

                     CUMULATIVE AREA =     .49 SQ MI


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

                   HYDROGRAPH AT STATION       B5
                     FOR PLAN 1, RATIO =  .68

  TOTAL RAINFALL =    2.78, TOTAL LOSS =    1.44, TOTAL EXCESS =    1.34

PEAK FLOW    TIME                          MAXIMUM AVERAGE FLOW
  (CFS)      (HR)                  6-HR      24-HR      72-HR    24.92-HR
    684.    12.08       (CFS)       71.        18.        17.        17.
                      (INCHES)    1.342      1.342      1.342      1.342
                       (AC-FT)     35.        35.        35.        35.

                     CUMULATIVE AREA =     .49 SQ MI


   ***          ***          ***          ***          ***
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HYDROGRAPH AT STATION B5
FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.68, TOTAL LOSS = 1.62, TOTAL EXCESS = 2.06

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
916.	12.08	(CFS)	108.	27.	26.	26.
		(INCHES)	2.056	2.058	2.058	2.058
		(AC-FT)	54.	54.	54.	54.

CUMULATIVE AREA = .49 SQ MI

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

HYDROGRAPH AT STATION B5
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.70, TOTAL EXCESS = 2.39

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1021.	12.08	(CFS)	125.	31.	30.	30.
		(INCHES)	2.375	2.389	2.389	2.389
		(AC-FT)	62.	62.	62.	62.

CUMULATIVE AREA = .49 SQ MI

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

HYDROGRAPH AT STATION B5
FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 4.87, TOTAL LOSS = 1.83, TOTAL EXCESS = 3.04

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1220.	12.08	(CFS)	156.	40.	39.	39.
		(INCHES)	2.960	3.036	3.036	3.036
		(AC-FT)	77.	79.	79.	79.

CUMULATIVE AREA = .49 SQ MI

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              **************
              *            *
140 KK        *        B6  *
              *            *
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RUNOFF FROM B6

SUBBASIN RUNOFF DATA

142 BA SUBBASIN CHARACTERISTICS

TAREA .82 SUBBASIN AREA

PRECIPITATION DATA

PB STORM 4.09 BASIN TOTAL PRECIPITATION

31 PI INCREMENTAL PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.01	.00	.01
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.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
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.00	.00	.00	.00	.00	.00	.00	.00		

143 LU UNIFORM LOSS RATE

STRTL .75 INITIAL LOSS

CNSTL .08 UNIFORM LOSS RATE

RTIMP .00 PERCENT IMPERVIOUS AREA

144 UD SCS DIMENSIONLESS UNITGRAPH

TLAG .37 LAG

***

UNIT HYDROGRAPH

24 END-OF-PERIOD ORDINATES

98.	306.	647.	901.	962.	886.	735.	521.	363.	261.
192.	136.	98.	71.	50.	36.	26.	19.	14.	10.
8.	5.	3.	1.						

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.70, TOTAL EXCESS = 2.39

K FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1315.	12.25	(CFS)	209.	53.	51.	51.
		(INCHES)	2.373	2.389	2.389	2.389

(AC-FT)	104.	104.	104.	104.

CUMULATIVE AREA = .82 SQ MI

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

HYDROGRAPH AT STATION B6
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 2.78, TOTAL LOSS = 1.44, TOTAL EXCESS = 1.34

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
873.	12.25	(CFS)	118.	30.	28.	28.
		(INCHES)	1.342	1.342	1.342	1.342
		(AC-FT)	59.	59.	59.	59.

CUMULATIVE AREA = .82 SQ MI

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

HYDROGRAPH AT STATION B6
FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.68, TOTAL LOSS = 1.62, TOTAL EXCESS = 2.06

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
179.	12.25	(CFS)	181.	45.	44.	44.
		(INCHES)	2.055	2.058	2.058	2.058
		(AC-FT)	90.	90.	90.	90.

CUMULATIVE AREA = .82 SQ MI

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

HYDROGRAPH AT STATION B6
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.70, TOTAL EXCESS = 2.39

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1315.	12.25	(CFS)	209.	53.	51.	51.
		(INCHES)	2.373	2.389	2.389	2.389
		(AC-FT)	104.	104.	104.	104.

CUMULATIVE AREA = .82 SQ MI

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

HYDROGRAPH AT STATION B6
FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 4.87, TOTAL LOSS = 1.83, TOTAL EXCESS = 3.04

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1572.	12.25	(CFS)	261.	67.	64.	64.
		(INCHES)	2.956	3.036	3.036	3.036
		(AC-FT)	129.	133.	133.	133.

CUMULATIVE AREA = .82 SQ MI

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          **************
          *            *
145 KK    *      11A   *
          *            *
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COMBINING B5,B6,ALL OTHERS ON B

147 HC HYDROGRAPH COMBINATION

ICOMP 3 NUMBER OF HYDROGRAPHS TO COMBINE

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

HYDROGRAPH AT STATION 11A
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
7070.	12.33	(CFS)	1388.	347.	334.	334.
		(INCHES)	1.341	1.342	1.342	1.342
		(AC-FT)	688.	688.	688.	688.

CUMULATIVE AREA = 9.62 SQ MI

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

HYDROGRAPH AT STATION 11A
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
9785.	12.33	(CFS)	2124.	532.	513.	513.
		(INCHES)	2.052	2.058	2.058	2.058
		(AC-FT)	1053.	1056.	1056.	1056.

CUMULATIVE AREA = 9.62 SQ MI

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

HYDROGRAPH AT STATION 11A
FOR PLAN 1, RATIO = 1.00

PEAK FLOW TIME MAXIMUM AVERAGE FLOW

(CFS)	(HR)		6-HR	24-HR	72-HR	24.92-HR
10940.	12.33	(CFS)	2451.	618.	595.	595.
		(INCHES)	2.369	2.389	2.389	2.389
		(AC-FT)	1215.	1226.	1226.	1226.

CUMULATIVE AREA = 9.62 SQ MI

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

HYDROGRAPH AT STATION 11A
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
13117.	12.33	(CFS)	3050.	785.	756.	756.
		(INCHES)	2.947	3.036	3.036	3.036
		(AC-FT)	1512.	1558.	1558.	1558.

CUMULATIVE AREA = 9.62 SQ MI

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**************
*            *
*     R11A   *
*            *
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ROUTING 11A TO B

HYDROGRAPH ROUTING DATA

150 RM MUSKINGUM ROUTING

NSTPS	1	NUMBER OF SUBREACHES
AMSKK	.12	MUSKINGUM K
X	.20	MUSKINGUM X

***

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

HYDROGRAPH AT STATION R11A
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
6895.	12.50	(CFS)	1388.	347.	334.	334.
		(INCHES)	1.341	1.342	1.342	1.342
		(AC-FT)	688.	688.	688.	688.

CUMULATIVE AREA = 9.62 SQ MI

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

HYDROGRAPH AT STATION R11A

FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
31.	12.50	(CFS)	2123.	532.	513.	513.
		(INCHES)	2.052	2.058	2.058	2.058
		(AC-FT)	1053.	1056.	1056.	1056.

CUMULATIVE AREA = 9.62 SQ MI

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

HYDROGRAPH AT STATION R11A
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
10657.	12.50	(CFS)	2450.	618.	595.	595.
		(INCHES)	2.368	2.389	2.389	2.389
		(AC-FT)	1215.	1226.	1226.	1226.

CUMULATIVE AREA = 9.62 SQ MI

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

HYDROGRAPH AT STATION R11A
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
12781.	12.50	(CFS)	3049.	785.	756.	756.
		(INCHES)	2.947	3.036	3.036	3.036
		(AC-FT)	1512.	1558.	1558.	1558.

CUMULATIVE AREA = 9.62 SQ MI

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          *            *
151 KK    *        B7  *
          *            *
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RUNOFF FROM B7

SUBBASIN RUNOFF DATA

153 BA SUBBASIN CHARACTERISTICS
TAREA .44 SUBBASIN AREA

PRECIPITATION DATA

98 PB STORM 4.09 BASIN TOTAL PRECIPITATION

31 PI INCREMENTAL PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.01	.00	.01
.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00		

LU UNIFORM LOSS RATE

STRTL	.75	INITIAL LOSS
CNSTL	.09	UNIFORM LOSS RATE
RTIMP	.00	PERCENT IMPERVIOUS AREA

155 UD SCS DIMENSIONLESS UNITGRAPH

TLAG	.27	LAG

***

UNIT HYDROGRAPH
18 END-OF-PERIOD ORDINATES

110.	366.	635.	678.	567.	379.	237.	156.	99.	65.
42.	27.	18.	11.	7.	5.	3.	1.		

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.74, TOTAL EXCESS = 2.35

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
831.	12.17	(CFS)	111.	28.	27.	27.
		(INCHES)	2.346	2.355	2.355	2.355
		(AC-FT)	55.	55.	55.	55.

CUMULATIVE AREA = .44 SQ MI

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

HYDROGRAPH AT STATION B7

FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 2.78, TOTAL LOSS = 1.46, TOTAL EXCESS = 1.33

FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
555.	12.17	(CFS)	63.	16.	15.	15.
		(INCHES)	1.326	1.326	1.326	1.326
		(AC-FT)	31.	31.	31.	31.

CUMULATIVE AREA = .44 SQ MI

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

HYDROGRAPH AT STATION B7
FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.68, TOTAL LOSS = 1.65, TOTAL EXCESS = 2.03

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
745.	12.17	(CFS)	96.	24.	23.	23.
		(INCHES)	2.027	2.028	2.028	2.028
		(AC-FT)	48.	48.	48.	48.

CUMULATIVE AREA = .44 SQ MI

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

HYDROGRAPH AT STATION B7
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.74, TOTAL EXCESS = 2.35

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
831.	12.17	(CFS)	111.	28.	27.	27.
		(INCHES)	2.346	2.355	2.355	2.355
		(AC-FT)	55.	55.	55.	55.

CUMULATIVE AREA = .44 SQ MI

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

HYDROGRAPH AT STATION B7
FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 4.87, TOTAL LOSS = 1.87, TOTAL EXCESS = 2.99

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
993.	12.17	(CFS)	139.	35.	34.	34.
		(INCHES)	2.930	2.993	2.993	2.993
		(AC-FT)	69.	70.	70.	70.

CUMULATIVE AREA = .44 SQ MI

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              *            *
156 KK        *         B  *
              *            *
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COTTONWOOD CREEK, ABOVE CONFLUENCE WITH CAVE CREEK

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158 HC          HYDROGRAPH COMBINATION
                     ICOMP          2  NUMBER OF HYDROGRAPHS TO COMBINE

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HYDROGRAPH AT STATION B
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
7105.	12.50	(CFS)	1451.	363.	349.	349.
		(INCHES)	1.341	1.341	1.341	1.341
		(AC-FT)	719.	719.	719.	719.

CUMULATIVE AREA = 10.06 SQ MI

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HYDROGRAPH AT STATION B
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
9819.	12.50	(CFS)	2219.	556.	536.	536.
		(INCHES)	2.051	2.057	2.057	2.057
		(AC-FT)	1100.	1104.	1104.	1104.

CUMULATIVE AREA = 10.06 SQ MI

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HYDROGRAPH AT STATION B
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
10979.	12.50	(CFS)	2561.	646.	622.	622.
		(INCHES)	2.367	2.388	2.388	2.388
		(AC-FT)	1270.	1281.	1281.	1281.

CUMULATIVE AREA = 10.06 SQ MI

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

                HYDROGRAPH AT STATION        B
                  FOR PLAN 1, RATIO = 1.19

 . FLOW    TIME                        MAXIMUM AVERAGE FLOW
 (CFS)     (HR)                 6-HR      24-HR      72-HR     24.92-HR
 13168.    12.50      (CFS)     3187.      821.       790.        790.
                    (INCHES)    2.946     3.034      3.034       3.034
                     (AC-FT)    1580.     1628.      1628.       1628.

                  CUMULATIVE AREA =   10.06 SQ MI


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


          **************
          *            *
159 KK    *        23  *
          *            *
          **************
                HYDROGRAPH COMBINATION ALL BASINS BEFORE 23

161 HC          HYDROGRAPH COMBINATION
                     ICOMP          3  NUMBER OF HYDROGRAPHS TO COMBINE

                                                          ***

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

                HYDROGRAPH AT STATION       23
                  FOR PLAN 1, RATIO =  .68

PEAK FLOW    TIME                        MAXIMUM AVERAGE FLOW
 (CFS)       (HR)                 6-HR      24-HR      72-HR     24.92-HR
 16970.      14.58      (CFS)     9668.     2471.      2380.       2380.
                    (INCHES)    1.270     1.299      1.299       1.299
                     (AC-FT)    4794.     4902.      4902.       4902.

                  CUMULATIVE AREA =   70.78 SQ MI

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

                HYDROGRAPH AT STATION       23
                  FOR PLAN 1, RATIO =  .90

PEAK FLOW    TIME                        MAXIMUM AVERAGE FLOW
 (CFS)       (HR)                 6-HR      24-HR      72-HR     24.92-HR
 24887.      14.58      (CFS)    14340.     3704.      3568.       3568.
                    (INCHES)    1.884     1.946      1.946       1.946
                     (AC-FT)    7111.     7347.      7347.       7347.

                  CUMULATIVE AREA =   70.78 SQ MI

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HYDROGRAPH AT STATION 23
FOR PLAN 1, RATIO = 1.00

FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
28373.	14.50	(CFS)	16465.	4276.	4118.	4118.
		(INCHES)	2.163	2.247	2.247	2.247
		(AC-FT)	8165.	8481.	8481.	8481.

CUMULATIVE AREA = 70.78 SQ MI

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

HYDROGRAPH AT STATION 23
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
34898.	14.50	(CFS)	20558.	5399.	5201.	5201.
		(INCHES)	2.700	2.837	2.837	2.837
		(AC-FT)	10194.	10709.	10709.	10709.

CUMULATIVE AREA = 70.78 SQ MI

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              *            *
162 KK        *       R23  *
              *            *
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ROUTING 23 TO 24

HYDROGRAPH ROUTING DATA

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164 RM          MUSKINGUM ROUTING
                     NSTPS        1 NUMBER OF SUBREACHES
                     AMSKK      .10 MUSKINGUM K
                         X      .20 MUSKINGUM X
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HYDROGRAPH AT STATION R23
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
39.	14.67	(CFS)	9664.	2471.	2380.	2380.
		(INCHES)	1.269	1.299	1.299	1.299
		(AC-FT)	4792.	4902.	4902.	4902.

CUMULATIVE AREA = 70.78 SQ MI

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

HYDROGRAPH AT STATION R23
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
24843.	14.67	(CFS)	14335.	3704.	3568.	3568.
		(INCHES)	1.883	1.946	1.946	1.946
		(AC-FT)	7108.	7347.	7347.	7347.

CUMULATIVE AREA = 70.78 SQ MI

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

HYDROGRAPH AT STATION R23
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
28325.	14.67	(CFS)	16461.	4276.	4118.	4118.
		(INCHES)	2.162	2.247	2.247	2.247
		(AC-FT)	8162.	8481.	8481.	8481.

CUMULATIVE AREA = 70.78 SQ MI

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

HYDROGRAPH AT STATION R23
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
34835.	14.67	(CFS)	20552.	5399.	5201.	5201.
		(INCHES)	2.700	2.837	2.837	2.837
		(AC-FT)	10191.	10709.	10709.	10709.

CUMULATIVE AREA = 70.78 SQ MI

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          *            *
165 KK    *        E2  *
          *            *
          **************
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RUNOFF FROM E2

SUBBASIN RUNOFF DATA

167 BA SUBBASIN CHARACTERISTICS
TAREA .50 SUBBASIN AREA

PRECIPITATION DATA

OR PB STORM 4.09 BASIN TOTAL PRECIPITATION

PI INCREMENTAL PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
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168 LU UNIFORM LOSS RATE

STRTL .65 INITIAL LOSS
CNSTL .06 UNIFORM LOSS RATE
RTIMP .00 PERCENT IMPERVIOUS AREA

169 UD SCS DIMENSIONLESS UNITGRAPH

TLAG .28 LAG

***

UNIT HYDROGRAPH
19 END-OF-PERIOD ORDINATES

115.	379.	680.	749.	649.	462.	287.	191.	126.	82.
54.	35.	23.	15.	10.	7.	5.	3.	1.	

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.48, TOTAL EXCESS = 2.61

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
7.	12.17	(CFS)	136.	35.	34.	34.
		(INCHES)	2.525	2.613	2.613	2.613
		(AC-FT)	67.	70.	70.	70.

CUMULATIVE AREA = .50 SQ MI

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

HYDROGRAPH AT STATION E2
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 2.78, TOTAL LOSS = 1.28, TOTAL EXCESS = 1.50

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
631.	12.17	(CFS)	81.	20.	19.	19.
		(INCHES)	1.501	1.502	1.502	1.502
		(AC-FT)	40.	40.	40.	40.

CUMULATIVE AREA = .50 SQ MI

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

HYDROGRAPH AT STATION E2
FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.68, TOTAL LOSS = 1.42, TOTAL EXCESS = 2.26

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
842.	12.17	(CFS)	119.	30.	29.	29.
		(INCHES)	2.217	2.257	2.257	2.257
		(AC-FT)	59.	60.	60.	60.

CUMULATIVE AREA = .50 SQ MI

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

HYDROGRAPH AT STATION E2
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.48, TOTAL EXCESS = 2.61

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
937.	12.17	(CFS)	136.	35.	34.	34.
		(INCHES)	2.525	2.613	2.613	2.613
		(AC-FT)	67.	70.	70.	70.

CUMULATIVE AREA = .50 SQ MI

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

HYDROGRAPH AT STATION E2
FOR PLAN 1, RATIO = 1.19

TAL RAINFALL = 4.87, TOTAL LOSS = 1.57, TOTAL EXCESS = 3.30

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1119.	12.17	(CFS)	166.	44.	43.	43.

(INCHES)	3.089	3.300	3.300	3.300
(AC-FT)	82.	88.	88.	88.

CUMULATIVE AREA = .50 SQ MI

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          **************
          *            *
170 KK    *        E3  *
          *            *
          **************
                    RUNOFF FROM E3

             SUBBASIN RUNOFF DATA

172 BA          SUBBASIN CHARACTERISTICS
                     TAREA          .42  SUBBASIN AREA

                PRECIPITATION DATA

 98 PB                STORM        4.09  BASIN TOTAL PRECIPITATION

 31 PI            INCREMENTAL PRECIPITATION PATTERN
                     .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
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                     .03      .09      .09      .09      .01      .01      .01      .01      .01      .01
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173 LU          UNIFORM LOSS RATE
                     STRTL         .65  INITIAL LOSS
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CNSTL .06 UNIFORM LOSS RATE
RTIMP .00 PERCENT IMPERVIOUS AREA

17' 'JD SCS DIMENSIONLESS UNITGRAPH
TLAG .59 LAG

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UNIT HYDROGRAPH
37 END-OF-PERIOD ORDINATES

17.	51.	98.	168.	243.	296.	319.	320.	301.	271.
234.	187.	144.	116.	93.	77.	62.	50.	40.	33.
26.	21.	17.	14.	11.	9.	7.	6.	5.	4.
3.	3.	2.	2.	1.	1.	0.			

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.48, TOTAL EXCESS = 2.61

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
511.	12.42	(CFS)	114.	30.	28.	28.
		(INCHES)	2.517	2.613	2.613	2.613
		(AC-FT)	56.	59.	59.	59.

CUMULATIVE AREA = .42 SQ MI

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

HYDROGRAPH AT STATION E3
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 2.78, TOTAL LOSS = 1.28, TOTAL EXCESS = 1.50

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
340.	12.42	(CFS)	68.	17.	16.	16.
		(INCHES)	1.500	1.502	1.502	1.502
		(AC-FT)	34.	34.	34.	34.

CUMULATIVE AREA = .42 SQ MI

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

HYDROGRAPH AT STATION E3
FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.68, TOTAL LOSS = 1.42, TOTAL EXCESS = 2.26

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
458.	12.42	(CFS)	100.	25.	25.	25.
		(INCHES)	2.210	2.257	2.257	2.257
		(AC-FT)	50.	51.	51.	51.

CUMULATIVE AREA = .42 SQ MI

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

HYDROGRAPH AT STATION E3
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.48, TOTAL EXCESS = 2.61

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
511.	12.42	(CFS)	114.	30.	28.	28.
		(INCHES)	2.517	2.613	2.613	2.613
		(AC-FT)	56.	59.	59.	59.

CUMULATIVE AREA = .42 SQ MI

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

HYDROGRAPH AT STATION E3
FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 4.87, TOTAL LOSS = 1.57, TOTAL EXCESS = 3.30

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
611.	12.42	(CFS)	139.	37.	36.	36.
		(INCHES)	3.082	3.300	3.300	3.300
		(AC-FT)	69.	74.	74.	74.

CUMULATIVE AREA = .42 SQ MI

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          **************
          *            *
175 KK    *        24  *
          *            *
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HYDROGRAPH COMBINATION, ALL BASINS BEFORE 24

177 HC HYDROGRAPH COMBINATION
ICOMP 3 NUMBER OF HYDROGRAPHS TO COMBINE

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

HYDROGRAPH AT STATION 24
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
14966.	14.67	(CFS)	9797.	2508.	2416.	2416.
		(INCHES)	1.270	1.301	1.301	1.301
		(AC-FT)	4858.	4975.	4975.	4975.

CUMULATIVE AREA = 71.70 SQ MI

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

                HYDROGRAPH AT STATION      24
                  FOR PLAN 1, RATIO =  .90

PEAK FLOW    TIME                          MAXIMUM AVERAGE FLOW
  (CFS)      (HR)                 6-HR      24-HR      72-HR    24.92-HR
  24890.     14.67      (CFS)    14530.     3760.      3622.      3622.
                      (INCHES)    1.884     1.950      1.950      1.950
                       (AC-FT)    7205.     7458.      7458.      7458.

                 CUMULATIVE AREA =   71.70 SQ MI


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

                HYDROGRAPH AT STATION      24
                  FOR PLAN 1, RATIO = 1.00

PEAK FLOW    TIME                          MAXIMUM AVERAGE FLOW
  (CFS)      (HR)                 6-HR      24-HR      72-HR    24.92-HR
  28381.     14.67      (CFS)    16683.     4340.      4181.      4181.
                      (INCHES)    2.163     2.251      2.251      2.251
                       (AC-FT)    8272.     8609.      8609.      8609.

                 CUMULATIVE AREA =   71.70 SQ MI


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

                HYDROGRAPH AT STATION      24
                  FOR PLAN 1, RATIO = 1.19

PEAK FLOW    TIME                          MAXIMUM AVERAGE FLOW
  (CFS)      (HR)                 6-HR      24-HR      72-HR    24.92-HR
  34909.     14.67      (CFS)    20823.     5481.      5279.      5279.
                      (INCHES)    2.700     2.843      2.843      2.843
                       (AC-FT)   10326.    10871.     10871.     10871.

                 CUMULATIVE AREA =   71.70 SQ MI


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


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          *            *
178 KK    *       R24  *
          *            *
          **************
                  ROUTING 24 TO 25

        HYDROGRAPH ROUTING DATA

180 RM        MUSKINGUM ROUTING
                 NSTPS        1 NUMBER OF SUBREACHES
                 AMSKK      .17 MUSKINGUM K
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X .20 MUSKINGUM X

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

HYDROGRAPH AT STATION R24
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
16869.	14.83	(CFS)	9787.	2508.	2416.	2416.
		(INCHES)	1.269	1.301	1.301	1.301
		(AC-FT)	4853.	4975.	4975.	4975.

CUMULATIVE AREA = 71.70 SQ MI

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

HYDROGRAPH AT STATION R24
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
24749.	14.83	(CFS)	14519.	3760.	3622.	3622.
		(INCHES)	1.883	1.950	1.950	1.950
		(AC-FT)	7199.	7458.	7458.	7458.

CUMULATIVE AREA = 71.70 SQ MI

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HYDROGRAPH AT STATION R24
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
28224.	14.83	(CFS)	16670.	4340.	4181.	4181.
		(INCHES)	2.162	2.251	2.251	2.251
		(AC-FT)	8266.	8609.	8609.	8609.

CUMULATIVE AREA = 71.70 SQ MI

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

HYDROGRAPH AT STATION R24
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
34721.	14.83	(CFS)	20807.	5481.	5279.	5279.
		(INCHES)	2.698	2.843	2.843	2.843
		(AC-FT)	10318.	10871.	10871.	10871.

CUMULATIVE AREA = 71.70 SQ MI

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                *            *
181 KK          *        E4  *
                *            *
                **************
                               RUNOFF FROM E4

                SUBBASIN RUNOFF DATA

183 BA            SUBBASIN CHARACTERISTICS
                        TAREA        2.05  SUBBASIN AREA

                  PRECIPITATION DATA

 98 PB                  STORM        4.09  BASIN TOTAL PRECIPITATION

 31 PI              INCREMENTAL PRECIPITATION PATTERN
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                        .03       .09       .09       .09       .01       .01       .01       .01       .01       .01
                        .01       .01       .01       .01       .01       .01       .00       .00       .00       .00
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                        .00       .00       .00       .00       .00       .00       .00       .00

184 LU            UNIFORM LOSS RATE
                        STRTL         .65  INITIAL LOSS
                        CNSTL         .09  UNIFORM LOSS RATE
                        RTIMP         .00  PERCENT IMPERVIOUS AREA

 5 UD             SCS DIMENSIONLESS UNITGRAPH
                         TLAG         .23  LAG
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UNIT HYDROGRAPH
16 END-OF-PERIOD ORDINATES

722.	2484.	3615.	3321.	2331.	1333.	825.	496.	302.	182.
111.	68.	41.	27.	15.	3.				

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.73, TOTAL EXCESS = 2.36

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
4147.	12.08	(CFS)	518.	130.	125.	125.
		(INCHES)	2.349	2.361	2.361	2.361
		(AC-FT)	257.	258.	258.	258.

CUMULATIVE AREA = 2.05 SQ MI

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HYDROGRAPH AT STATION E4
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 2.78, TOTAL LOSS = 1.41, TOTAL EXCESS = 1.37

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
2782.	12.08	(CFS)	303.	76.	73.	73.
		(INCHES)	1.374	1.374	1.374	1.374
		(AC-FT)	150.	150.	150.	150.

CUMULATIVE AREA = 2.05 SQ MI

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HYDROGRAPH AT STATION E4
FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.68, TOTAL LOSS = 1.64, TOTAL EXCESS = 2.04

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
3721.	12.08	(CFS)	450.	113.	108.	108.
		(INCHES)	2.043	2.043	2.043	2.043
		(AC-FT)	223.	223.	223.	223.

CUMULATIVE AREA = 2.05 SQ MI

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

HYDROGRAPH AT STATION E4
FOR PLAN 1, RATIO = 1.00

AL RAINFALL = 4.09, TOTAL LOSS = 1.73, TOTAL EXCESS = 2.36

AK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
4147.	12.08	(CFS)	518.	130.	125.	125.

(INCHES)	2.349	2.361	2.361	2.361
(AC-FT)	257.	258.	258.	258.

CUMULATIVE AREA = 2.05 SQ MI

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

HYDROGRAPH AT STATION E4
FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 4.87, TOTAL LOSS = 1.88, TOTAL EXCESS = 2.99

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
4958.	12.08	(CFS)	642.	165.	159.	159.
		(INCHES)	2.910	2.987	2.987	2.987
		(AC-FT)	318.	327.	327.	327.

CUMULATIVE AREA = 2.05 SQ MI

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*            *
*        E5  *
*            *
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188 KK

RUNOFF FROM E5

SUBBASIN RUNOFF DATA

188 BA SUBBASIN CHARACTERISTICS
TAREA .19 SUBBASIN AREA

PRECIPITATION DATA

98 PB STORM 4.09 BASIN TOTAL PRECIPITATION

31 PI INCREMENTAL PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
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189 LU          UNIFORM LOSS RATE
                     STRTL        .65  INITIAL LOSS
                     CNSTL        .08  UNIFORM LOSS RATE
                     RTIMP        .00  PERCENT IMPERVIOUS AREA

190 UD          SCS DIMENSIONLESS UNITGRAPH
                      TLAG        .14  LAG

                                                  ***

                                              UNIT HYDROGRAPH
                                          10 END-OF-PERIOD ORDINATES
            205.     503.     406.     187.      91.      43.      20.      10.       5.       2.

   TOTAL RAINFALL =    4.09, TOTAL LOSS =    1.66, TOTAL EXCESS =    2.43

    FLOW     TIME                          MAXIMUM AVERAGE FLOW
   (CFS)     (HR)                  6-HR      24-HR      72-HR    24.92-HR
    456.    12.00        (CFS)     49.        12.        12.        12.
                       (INCHES)   2.409      2.434      2.434      2.434
                       (AC-FT)     24.        25.        25.        25.

                       CUMULATIVE AREA =     .19 SQ MI


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

                        HYDROGRAPH AT STATION       E5
                          FOR PLAN 1, RATIO =  .68

   TOTAL RAINFALL =    2.78, TOTAL LOSS =    1.37, TOTAL EXCESS =    1.41

 PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
   (CFS)       (HR)                  6-HR      24-HR      72-HR    24.92-HR
    307.     12.00        (CFS)     29.         7.         7.         7.
                       (INCHES)   1.409      1.409      1.409      1.409
                       (AC-FT)     14.        14.        14.        14.

                       CUMULATIVE AREA =     .19 SQ MI


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

                        HYDROGRAPH AT STATION       E5
                          FOR PLAN 1, RATIO =  .90
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TOTAL RAINFALL = 3.68, TOTAL LOSS = 1.57, TOTAL EXCESS = 2.11

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
10.	12.00	(CFS)	43.	11.	10.	10.
		(INCHES)	2.101	2.107	2.107	2.107
		(AC-FT)	21.	21.	21.	21.

CUMULATIVE AREA = .19 SQ MI

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

HYDROGRAPH AT STATION E5
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.66, TOTAL EXCESS = 2.43

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
456.	12.00	(CFS)	49.	12.	12.	12.
		(INCHES)	2.409	2.434	2.434	2.434
		(AC-FT)	24.	25.	25.	25.

CUMULATIVE AREA = .19 SQ MI

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

HYDROGRAPH AT STATION E5
FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 4.87, TOTAL LOSS = 1.79, TOTAL EXCESS = 3.08

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
545.	12.00	(CFS)	61.	16.	15.	15.
		(INCHES)	2.971	3.080	3.080	3.080
		(AC-FT)	30.	31.	31.	31.

CUMULATIVE AREA = .19 SQ MI

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              *            *
191 KK        *        25  *
              *            *
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HYDROGRAPH COMBINATION, ALL BASINS BEFORE 24

1[illegible] HYDROGRAPH COMBINATION
ICOMP 3 NUMBER OF HYDROGRAPHS TO COMBINE

***

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

HYDROGRAPH AT STATION 25
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
16870.	14.83	(CFS)	10052.	2591.	2496.	2496.
		(INCHES)	1.264	1.303	1.303	1.303
		(AC-FT)	4985.	5140.	5140.	5140.

CUMULATIVE AREA = 73.94 SQ MI

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

HYDROGRAPH AT STATION 25
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
24778.	14.83	(CFS)	14917.	3883.	3741.	3741.
		(INCHES)	1.876	1.953	1.953	1.953
		(AC-FT)	7397.	7703.	7703.	7703.

CUMULATIVE AREA = 73.94 SQ MI

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

HYDROGRAPH AT STATION 25
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
28271.	14.83	(CFS)	17127.	4483.	4318.	4318.
		(INCHES)	2.154	2.255	2.255	2.255
		(AC-FT)	8493.	8892.	8892.	8892.

CUMULATIVE AREA = 73.94 SQ MI

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

HYDROGRAPH AT STATION 25
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
34802.	14.83	(CFS)	21373.	5661.	5453.	5453.
		(INCHES)	2.687	2.848	2.848	2.848
		(AC-FT)	10598.	11229.	11229.	11229.

CUMULATIVE AREA = 73.94 SQ MI

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*            *
*      E6A   *
*            *
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RUNOFF FROM E6A

SUBBASIN RUNOFF DATA

196 BA SUBBASIN CHARACTERISTICS

TAREA 1.00 SUBBASIN AREA

PRECIPITATION DATA

98 PB STORM 4.09 BASIN TOTAL PRECIPITATION

31 PI INCREMENTAL PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

197 LU UNIFORM LOSS RATE

STRTL .65 INITIAL LOSS

CNSTL .06 UNIFORM LOSS RATE

RTIMP .00 PERCENT IMPERVIOUS AREA

198 UD SCS DIMENSIONLESS UNITGRAPH

TLAG .25 LAG

***

UNIT HYDROGRAPH

17 END-OF-PERIOD ORDINATES

294.	1004.	1598.	1598.	1246.	746.	464.	301.	187.	117.
73.	46.	29.	18.	13.	7.	2.			

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.48, TOTAL EXCESS = 2.61

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1942.	12.17	(CFS)	272.	70.	68.	68.
		(INCHES)	2.525	2.613	2.613	2.613
		(AC-FT)	135.	139.	139.	139.

CUMULATIVE AREA = 1.00 SQ MI

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

HYDROGRAPH AT STATION E6A
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 2.78, TOTAL LOSS = 1.28, TOTAL EXCESS = 1.50

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1308.	12.17	(CFS)	161.	40.	39.	39.
		(INCHES)	1.501	1.502	1.502	1.502
		(AC-FT)	80.	80.	80.	80.

CUMULATIVE AREA = 1.00 SQ MI

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

HYDROGRAPH AT STATION E6A
FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.68, TOTAL LOSS = 1.42, TOTAL EXCESS = 2.26

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1744.	12.17	(CFS)	238.	61.	58.	58.
		(INCHES)	2.217	2.257	2.257	2.257
		(AC-FT)	118.	120.	120.	120.

CUMULATIVE AREA = 1.00 SQ MI

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

HYDROGRAPH AT STATION E6A
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.48, TOTAL EXCESS = 2.61

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
2.	12.17	(CFS)	272.	70.	68.	68.
		(INCHES)	2.525	2.613	2.613	2.613
		(AC-FT)	135.	139.	139.	139.

CUMULATIVE AREA = 1.00 SQ MI

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

HYDROGRAPH AT STATION E6A
FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 4.87, TOTAL LOSS = 1.57, TOTAL EXCESS = 3.30

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
2318.	12.17	(CFS)	332.	89.	85.	85.
		(INCHES)	3.089	3.300	3.300	3.300
		(AC-FT)	165.	176.	176.	176.

CUMULATIVE AREA = 1.00 SQ MI

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              *            *
199 KK        *        E6  *
              *            *
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RUNOFF FROM E6

SUBBASIN RUNOFF DATA

201 BA SUBBASIN CHARACTERISTICS
TAREA .19 SUBBASIN AREA

PRECIPITATION DATA

98 PB STORM 4.09 BASIN TOTAL PRECIPITATION

31 PI INCREMENTAL PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
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202 LU        UNIFORM LOSS RATE
                 STRTL        .65  INITIAL LOSS
                 CNSTL        .06  UNIFORM LOSS RATE
                 RTIMP        .00  PERCENT IMPERVIOUS AREA

203 UD        SCS DIMENSIONLESS UNITGRAPH
                 TLAG         .17  LAG

                                        ***

                                   UNIT HYDROGRAPH
                              12 END-OF-PERIOD ORDINATES
        132.    399.    410.    257.    129.    69.    36.    19.    10.    5.
         3.      1.

  TOTAL RAINFALL =   4.09, TOTAL LOSS =   1.48, TOTAL EXCESS =   2.61

PEAK FLOW    TIME                    MAXIMUM AVERAGE FLOW
 (CFS)       (HR)              6-HR      24-HR      72-HR     24.92-HR
  436.     12.08     (CFS)      52.        13.        13.        13.
                  (INCHES)    2.527      2.613      2.613      2.613
                  (AC-FT)      26.        26.        26.        26.

                  CUMULATIVE AREA =    .19 SQ MI

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

                HYDROGRAPH AT STATION      E6
                  FOR PLAN 1, RATIO =  .68

  TOTAL RAINFALL =   2.78, TOTAL LOSS =   1.28, TOTAL EXCESS =   1.50

PEAK FLOW    TIME                    MAXIMUM AVERAGE FLOW
 (CFS)       (HR)              6-HR      24-HR      72-HR     24.92-HR
  294.     12.08     (CFS)      31.         8.         7.         7.
                  (INCHES)    1.502      1.502      1.502      1.502
                  (AC-FT)      15.        15.        15.        15.

                  CUMULATIVE AREA =    .19 SQ MI

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

                HYDROGRAPH AT STATION      E6
                  FOR PLAN 1, RATIO =  .90

  TOTAL RAINFALL =   3.68, TOTAL LOSS =   1.42, TOTAL EXCESS =   2.26

PEAK FLOW    TIME                    MAXIMUM AVERAGE FLOW
```

(CFS)	(HR)		6-HR	24-HR	72-HR	24.92-HR
392.	12.08	(CFS)	45.	12.	11.	11.
		(INCHES)	2.218	2.257	2.257	2.257
		(AC-FT)	22.	23.	23.	23.

CUMULATIVE AREA = .19 SQ MI

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

HYDROGRAPH AT STATION E6
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.48, TOTAL EXCESS = 2.61

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
436.	12.08	(CFS)	52.	13.	13.	13.
		(INCHES)	2.527	2.613	2.613	2.613
		(AC-FT)	26.	26.	26.	26.

CUMULATIVE AREA = .19 SQ MI

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

HYDROGRAPH AT STATION E6
FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 4.87, TOTAL LOSS = 1.57, TOTAL EXCESS = 3.30

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
521.	12.08	(CFS)	63.	17.	16.	16.
		(INCHES)	3.090	3.300	3.300	3.300
		(AC-FT)	31.	33.	33.	33.

CUMULATIVE AREA = .19 SQ MI

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              **************
              *            *
204 KK        *        26  *
              *            *
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HYDROGRAPH COMBINATION, ALL BASINS ABOVE 26

206 HC HYDROGRAPH COMBINATION
ICOMP 3 NUMBER OF HYDROGRAPHS TO COMBINE

***

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

HYDROGRAPH AT STATION 26

FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
88.	14.83	(CFS)	10222.	2639.	2542.	2542.
		(INCHES)	1.265	1.307	1.307	1.307
		(AC-FT)	5069.	5235.	5235.	5235.

CUMULATIVE AREA = 75.13 SQ MI

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

HYDROGRAPH AT STATION 26
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
24817.	14.83	(CFS)	15164.	3956.	3810.	3810.
		(INCHES)	1.877	1.958	1.958	1.958
		(AC-FT)	7520.	7846.	7846.	7846.

CUMULATIVE AREA = 75.13 SQ MI

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

HYDROGRAPH AT STATION 26
FOR PLAN 1, RATIO = 1.00

FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
28319.	14.83	(CFS)	17407.	4567.	4399.	4399.
		(INCHES)	2.154	2.260	2.260	2.260
		(AC-FT)	8632.	9058.	9058.	9058.

CUMULATIVE AREA = 75.13 SQ MI

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

HYDROGRAPH AT STATION 26
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
34868.	14.83	(CFS)	21715.	5767.	5555.	5555.
		(INCHES)	2.687	2.855	2.855	2.855
		(AC-FT)	10768.	11439.	11439.	11439.

CUMULATIVE AREA = 75.13 SQ MI

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207 KK    *        E7  *
          *            *
          **************
                    RUNOFF FROM E7

          SUBBASIN RUNOFF DATA

209 BA        SUBBASIN CHARACTERISTICS
                  TAREA          .37  SUBBASIN AREA

              PRECIPITATION DATA

98 PB             STORM         4.09  BASIN TOTAL PRECIPITATION

31 PI           INCREMENTAL PRECIPITATION PATTERN
                  .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
                  .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
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                  .03      .09      .09      .09      .01      .01      .01      .01      .01      .01
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                  .00      .00      .00      .00      .00      .00      .00      .00

210 LU        UNIFORM LOSS RATE
                  STRTL          .65  INITIAL LOSS
                  CNSTL          .08  UNIFORM LOSS RATE
                  RTIMP          .00  PERCENT IMPERVIOUS AREA

211 UD        SCS DIMENSIONLESS UNITGRAPH
                  TLAG           .29  LAG

                                   ***

                                UNIT HYDROGRAPH
                            19 END-OF-PERIOD ORDINATES
          79.     256.     475.     540.     481.     362.     226.     149.     102.      67.
          44.      29.      20.      13.       9.       6.       4.       3.       1.
```

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.66, TOTAL EXCESS = 2.43

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
678.	12.17	(CFS)	96.	24.	23.	23.
		(INCHES)	2.407	2.434	2.434	2.434
		(AC-FT)	47.	48.	48.	48.

CUMULATIVE AREA = .37 SQ MI

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

HYDROGRAPH AT STATION E7
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 2.78, TOTAL LOSS = 1.37, TOTAL EXCESS = 1.41

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
455.	12.17	(CFS)	56.	14.	14.	14.
		(INCHES)	1.409	1.409	1.409	1.409
		(AC-FT)	28.	28.	28.	28.

CUMULATIVE AREA = .37 SQ MI

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

HYDROGRAPH AT STATION E7
FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.68, TOTAL LOSS = 1.57, TOTAL EXCESS = 2.11

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
608.	12.17	(CFS)	84.	21.	20.	20.
		(INCHES)	2.100	2.107	2.107	2.107
		(AC-FT)	41.	42.	42.	42.

CUMULATIVE AREA = .37 SQ MI

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

HYDROGRAPH AT STATION E7
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.66, TOTAL EXCESS = 2.43

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
678.	12.17	(CFS)	96.	24.	23.	23.
		(INCHES)	2.407	2.434	2.434	2.434
		(AC-FT)	47.	48.	48.	48.

CUMULATIVE AREA = .37 SQ MI

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

HYDROGRAPH AT STATION E7
FOR PLAN 1, RATIO = 1.19

TAL RAINFALL = 4.87, TOTAL LOSS = 1.79, TOTAL EXCESS = 3.08

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
810.	12.17	(CFS)	118.	31.	30.	30.
		(INCHES)	2.969	3.080	3.080	3.080
		(AC-FT)	59.	61.	61.	61.

CUMULATIVE AREA = .37 SQ MI

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              **************
              *            *
212 KK        *        E8  *
              *            *
              **************
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RUNOFF FROM E8

SUBBASIN RUNOFF DATA

TA SUBBASIN CHARACTERISTICS
TAREA .36 SUBBASIN AREA

PRECIPITATION DATA

98 PB STORM 4.09 BASIN TOTAL PRECIPITATION

31 PI INCREMENTAL PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.01	.00	.01
.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00		

215 LU UNIFORM LOSS RATE

STRTL	.65	INITIAL LOSS
CNSTL	.09	UNIFORM LOSS RATE
RTIMP	.00	PERCENT IMPERVIOUS AREA

216 UD SCS DIMENSIONLESS UNITGRAPH

TLAG	.28	LAG

***

UNIT HYDROGRAPH
19 END-OF-PERIOD ORDINATES

83.	273.	490.	539.	467.	333.	207.	137.	91.	59.
39.	25.	17.	11.	7.	5.	3.	2.	0.	

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.73, TOTAL EXCESS = 2.36

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
668.	12.17	(CFS)	91.	23.	22.	22.
		(INCHES)	2.348	2.361	2.361	2.361
		(AC-FT)	45.	45.	45.	45.

CUMULATIVE AREA = .36 SQ MI

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

HYDROGRAPH AT STATION E8
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 2.78, TOTAL LOSS = 1.41, TOTAL EXCESS = 1.37

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
447.	12.17	(CFS)	53.	13.	13.	13.
		(INCHES)	1.374	1.374	1.374	1.374
		(AC-FT)	26.	26.	26.	26.

CUMULATIVE AREA = .36 SQ MI

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

HYDROGRAPH AT STATION E8
FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.68, TOTAL LOSS = 1.64, TOTAL EXCESS = 2.04

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
599.	12.17	(CFS)	79.	20.	19.	19.
		(INCHES)	2.043	2.043	2.043	2.043

```
                    (AC-FT)      39.        39.        39.        39.

                    CUMULATIVE AREA =     .36 SQ MI


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

                     HYDROGRAPH AT STATION       E8
                       FOR PLAN 1, RATIO = 1.00

   TOTAL RAINFALL =    4.09, TOTAL LOSS =    1.73, TOTAL EXCESS =    2.36

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
   668.      12.17      (CFS)       91.         23.         22.         22.
                      (INCHES)     2.348       2.361       2.361       2.361
                      (AC-FT)       45.         45.         45.         45.

                    CUMULATIVE AREA =     .36 SQ MI


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

                     HYDROGRAPH AT STATION       E8
                       FOR PLAN 1, RATIO = 1.19

   TOTAL RAINFALL =    4.87, TOTAL LOSS =    1.88, TOTAL EXCESS =    2.99

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
    FS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
   .99.      12.17      (CFS)      113.         29.         28.         28.
                      (INCHES)     2.909       2.987       2.987       2.987
                      (AC-FT)       56.         57.         57.         57.

                    CUMULATIVE AREA =     .36 SQ MI


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


          **************
          *            *
217 KK    *        27  *
          *            *
          **************
                    HYDROGRAPH COMBINATION,ALL BASINS ABOVE 27

219 HC          HYDROGRAPH COMBINATION
                     ICOMP          3  NUMBER OF HYDROGRAPHS TO COMBINE

                                                          ***

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

                     HYDROGRAPH AT STATION       27
                       FOR PLAN 1, RATIO =  .68

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
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(CFS)	(HR)		6-HR	24-HR	72-HR	24.92-HR
16890.	14.83	(CFS)	10324.	2667.	2569.	2569.
		(INCHES)	1.265	1.307	1.307	1.307
		(AC-FT)	5120.	5289.	5289.	5289.

CUMULATIVE AREA = 75.86 SQ MI

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

HYDROGRAPH AT STATION 27
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
24831.	14.83	(CFS)	15308.	3996.	3849.	3849.
		(INCHES)	1.876	1.959	1.959	1.959
		(AC-FT)	7591.	7927.	7927.	7927.

CUMULATIVE AREA = 75.86 SQ MI

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

HYDROGRAPH AT STATION 27
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
[illegible]338.	14.83	(CFS)	17570.	4614.	4444.	4444.
		(INCHES)	2.153	2.262	2.262	2.262
		(AC-FT)	8712.	9151.	9151.	9151.

CUMULATIVE AREA = 75.86 SQ MI

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

HYDROGRAPH AT STATION 27
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
34901.	14.75	(CFS)	21916.	5826.	5612.	5612.
		(INCHES)	2.686	2.856	2.856	2.856
		(AC-FT)	10868.	11557.	11557.	11557.

CUMULATIVE AREA = 75.86 SQ MI

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              **************
              *            *
[illegible]20 KK      *      R27   *
              *            *
              **************
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ROUTING 27 TO 30

HYDROGRAPH ROUTING DATA

:M MUSKINGUM ROUTING

NSTPS	1	NUMBER OF SUBREACHES
AMSKK	.11	MUSKINGUM K
X	.20	MUSKINGUM X

***

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

HYDROGRAPH AT STATION R27
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
16856.	14.92	(CFS)	10318.	2667.	2569.	2569.
		(INCHES)	1.265	1.307	1.307	1.307
		(AC-FT)	5116.	5289.	5289.	5289.

CUMULATIVE AREA = 75.86 SQ MI

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

HYDROGRAPH AT STATION R27
FOR PLAN 1, RATIO = .90

. FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
24782.	14.92	(CFS)	15301.	3996.	3849.	3849.
		(INCHES)	1.875	1.959	1.959	1.959
		(AC-FT)	7587.	7927.	7927.	7927.

CUMULATIVE AREA = 75.86 SQ MI

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

HYDROGRAPH AT STATION R27
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
28286.	14.92	(CFS)	17563.	4614.	4444.	4444.
		(INCHES)	2.153	2.262	2.262	2.262
		(AC-FT)	8709.	9151.	9151.	9151.

CUMULATIVE AREA = 75.86 SQ MI

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

HYDROGRAPH AT STATION R27
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)	MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR

34838.	14.92	(CFS)	21907.	5826.	5612.	5612.
		(INCHES)	2.685	2.856	2.856	2.856
		(AC-FT)	10863.	11557.	11557.	11557.

CUMULATIVE AREA = 75.86 SQ MI

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          *            *
223 KK    *      E10   *
          *            *
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RUNOFF FROM E10

SUBBASIN RUNOFF DATA

225 BA SUBBASIN CHARACTERISTICS

TAREA 2.16 SUBBASIN AREA

PRECIPITATION DATA

98 PB STORM 4.09 BASIN TOTAL PRECIPITATION

31 PI INCREMENTAL PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.01	.00	.01
.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00		

226 LU UNIFORM LOSS RATE

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STRTL        .65  INITIAL LOSS
CNSTL        .09  UNIFORM LOSS RATE
RTIMP        .00  PERCENT IMPERVIOUS AREA

JD        SCS DIMENSIONLESS UNITGRAPH
TLAG        .61  LAG

                                   ***

                                UNIT HYDROGRAPH
                            39 END-OF-PERIOD ORDINATES
   79.    241.    465.    788.   1158.   1432.   1581.   1598.   1537.   1401.
 1239.   1023.    797.    636.    514.    422.    347.    283.    226.    185.
  151.    121.     98.     80.     64.     53.     43.     35.     28.     23.
   19.     16.     13.     11.      8.      6.      4.      2.      0.

TOTAL RAINFALL =   4.09, TOTAL LOSS =   1.73, TOTAL EXCESS =   2.36

PEAK FLOW    TIME                    MAXIMUM AVERAGE FLOW
  (CFS)      (HR)              6-HR      24-HR      72-HR    24.92-HR
  2525.     12.50     (CFS)    544.       137.       132.       132.
                    (INCHES)  2.343      2.361      2.361      2.361
                    (AC-FT)   270.       272.       272.       272.

                   CUMULATIVE AREA =   2.16 SQ MI

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

                  HYDROGRAPH AT STATION      E10
                    FOR PLAN 1, RATIO =  .68

TOTAL RAINFALL =   2.78, TOTAL LOSS =   1.41, TOTAL EXCESS =   1.37

PEAK FLOW    TIME                    MAXIMUM AVERAGE FLOW
  (CFS)      (HR)              6-HR      24-HR      72-HR    24.92-HR
  1670.     12.50     (CFS)    319.        80.        77.        77.
                    (INCHES)  1.374      1.374      1.374      1.374
                    (AC-FT)   158.       158.       158.       158.

                   CUMULATIVE AREA =   2.16 SQ MI

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

                  HYDROGRAPH AT STATION      E10
                    FOR PLAN 1, RATIO =  .90

TOTAL RAINFALL =   3.68, TOTAL LOSS =   1.64, TOTAL EXCESS =   2.04

PEAK FLOW    TIME                    MAXIMUM AVERAGE FLOW
  (CFS)      (HR)              6-HR      24-HR      72-HR    24.92-HR
  2259.     12.50     (CFS)    474.       119.       114.       114.
                    (INCHES)  2.041      2.043      2.043      2.043
                    (AC-FT)   235.       235.       235.       235.

                   CUMULATIVE AREA =   2.16 SQ MI

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HYDROGRAPH AT STATION E10
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.73, TOTAL EXCESS = 2.36

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
2525.	12.50	(CFS)	544.	137.	132.	132.
		(INCHES)	2.343	2.361	2.361	2.361
		(AC-FT)	270.	272.	272.	272.

CUMULATIVE AREA = 2.16 SQ MI

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

HYDROGRAPH AT STATION E10
FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 4.87, TOTAL LOSS = 1.88, TOTAL EXCESS = 2.99

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
3028.	12.50	(CFS)	674.	174.	167.	167.
		(INCHES)	2.903	2.987	2.987	2.987
		(AC-FT)	334.	344.	344.	344.

CUMULATIVE AREA = 2.16 SQ MI

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          **************
          *            *
228 KK    *        E9  *
          *            *
          **************
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RUNOFF FROM E9

SUBBASIN RUNOFF DATA

230 BA SUBBASIN CHARACTERISTICS
TAREA .42 SUBBASIN AREA

PRECIPITATION DATA

98 PB STORM 4.09 BASIN TOTAL PRECIPITATION

31 PI INCREMENTAL PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.01	.00	.01
.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00		

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231 LU          UNIFORM LOSS RATE
                     STRTL        .65  INITIAL LOSS
                     CNSTL        .08  UNIFORM LOSS RATE
                     RTIMP        .00  PERCENT IMPERVIOUS AREA

232 UD          SCS DIMENSIONLESS UNITGRAPH
                      TLAG        .39  LAG

                                                  ***

                                              UNIT HYDROGRAPH
                                          25 END-OF-PERIOD ORDINATES
            45.     138.     292.     423.     469.     449.     385.     295.     204.     148.
           110.      81.      59.      43.      31.      23.      17.      12.       9.       6.
             5.       4.       3.       2.       1.

   TOTAL RAINFALL =    4.09, TOTAL LOSS =    1.66, TOTAL EXCESS =    2.43

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   654.     12.25        (CFS)      109.        27.         26.         26.
                        (INCHES)   2.405       2.434       2.434       2.434
                        (AC-FT)     54.        55.         55.         55.

                        CUMULATIVE AREA =     .42 SQ MI


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

                       HYDROGRAPH AT STATION       E9
                         FOR PLAN 1, RATIO =  .68

    'AL RAINFALL =    2.78, TOTAL LOSS =    1.37, TOTAL EXCESS =    1.41

 AK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   437.     12.25        (CFS)       64.        16.         15.         15.
```

(INCHES)	1.409	1.409	1.409	1.409
(AC-FT)	32.	32.	32.	32.

CUMULATIVE AREA = .42 SQ MI

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

HYDROGRAPH AT STATION E9
FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.68, TOTAL LOSS = 1.57, TOTAL EXCESS = 2.11

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
587.	12.25	(CFS)	95.	24.	23.	23.
		(INCHES)	2.099	2.107	2.107	2.107
		(AC-FT)	47.	47.	47.	47.

CUMULATIVE AREA = .42 SQ MI

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

HYDROGRAPH AT STATION E9
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.66, TOTAL EXCESS = 2.43

P[illegible] FLOW S)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
654.	12.25	(CFS)	109.	27.	26.	26.
		(INCHES)	2.405	2.434	2.434	2.434
		(AC-FT)	54.	55.	55.	55.

CUMULATIVE AREA = .42 SQ MI

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

HYDROGRAPH AT STATION E9
FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 4.87, TOTAL LOSS = 1.79, TOTAL EXCESS = 3.08

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
783.	12.25	(CFS)	134.	35.	33.	33.
		(INCHES)	2.967	3.080	3.080	3.080
		(AC-FT)	66.	69.	69.	69.

CUMULATIVE AREA = .42 SQ MI

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          *           *
233 KK    *        30 *
          *           *
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HYDROGRAPH COMBINATION, ALL BASINS ABOVE 30

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233 HC          HYDROGRAPH COMBINATION
                     ICOMP          3  NUMBER OF HYDROGRAPHS TO COMBINE

                                                                  ***

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HYDROGRAPH AT STATION 30
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
16884.	14.92	(CFS)	10687.	2763.	2661.	2661.
		(INCHES)	1.267	1.310	1.310	1.310
		(AC-FT)	5299.	5479.	5479.	5479.

CUMULATIVE AREA = 78.44 SQ MI

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HYDROGRAPH AT STATION 30
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
24863.	14.92	(CFS)	15826.	4139.	3987.	3987.
		(INCHES)	1.876	1.962	1.962	1.962
		(AC-FT)	7847.	8209.	8209.	8209.

CUMULATIVE AREA = 78.44 SQ MI

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    ***             ***             ***             ***             ***
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HYDROGRAPH AT STATION 30
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
28392.	14.92	(CFS)	18162.	4778.	4602.	4602.
		(INCHES)	2.153	2.265	2.265	2.265
		(AC-FT)	9006.	9478.	9478.	9478.

CUMULATIVE AREA = 78.44 SQ MI

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    ***             ***             ***             ***             ***
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HYDROGRAPH AT STATION 30
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)	MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR

34992.	14.92	(CFS)	22645.	6035.	5813.	5813.
		(INCHES)	2.684	2.861	2.861	2.861
		(AC-FT)	11229.	11970.	11970.	11970.

CUMULATIVE AREA = 78.44 SQ MI

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          **************
          *            *
236 KK    *       R30  *
          *            *
          **************
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ROUTING 30 TO 33

HYDROGRAPH ROUTING DATA

238 RM MUSKINGUM ROUTING

NSTPS	2	NUMBER OF SUBREACHES
AMSKK	.19	MUSKINGUM K
X	.20	MUSKINGUM X

***

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

HYDROGRAPH AT STATION R30
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
16827.	15.08	(CFS)	10677.	2763.	2661.	2661.
		(INCHES)	1.266	1.310	1.310	1.310
		(AC-FT)	5294.	5479.	5479.	5479.

CUMULATIVE AREA = 78.44 SQ MI

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

HYDROGRAPH AT STATION R30
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
24781.	15.08	(CFS)	15812.	4139.	3987.	3987.
		(INCHES)	1.874	1.962	1.962	1.962
		(AC-FT)	7841.	8209.	8209.	8209.

CUMULATIVE AREA = 78.44 SQ MI

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

HYDROGRAPH AT STATION R30
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
28302.	15.08	(CFS)	18147.	4778.	4602.	4602.
		(INCHES)	2.151	2.265	2.265	2.265
		(AC-FT)	8999.	9478.	9478.	9478.

CUMULATIVE AREA = 78.44 SQ MI

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

HYDROGRAPH AT STATION R30
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
34887.	15.08	(CFS)	22627.	6035.	5813.	5813.
		(INCHES)	2.682	2.861	2.861	2.861
		(AC-FT)	11220.	11970.	11970.	11970.

CUMULATIVE AREA = 78.44 SQ MI

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          **************
          *            *
239 KK    *       E11  *
          *            *
          **************
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RUNOFF FROM E11

SUBBASIN RUNOFF DATA

241 BA SUBBASIN CHARACTERISTICS
TAREA .47 SUBBASIN AREA

PRECIPITATION DATA

98 PB STORM 4.09 BASIN TOTAL PRECIPITATION

31 PI INCREMENTAL PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.01	.00	.01
.01	.01	.01	.01	.01	.01	.01	.01	.03	.03

.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00		

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242 LU          UNIFORM LOSS RATE
                     STRTL        .65  INITIAL LOSS
                     CNSTL        .14  UNIFORM LOSS RATE
                     RTIMP        .00  PERCENT IMPERVIOUS AREA

243 UD          SCS DIMENSIONLESS UNITGRAPH
                      TLAG        .28  LAG

                                                  ***

                                              UNIT HYDROGRAPH
                                          19 END-OF-PERIOD ORDINATES
          108.     356.     639.     704.     610.     434.     270.     179.     118.      77.
           51.      33.      22.      14.       9.       7.       4.       2.       1.

 TOTAL RAINFALL =    4.09, TOTAL LOSS =    2.01, TOTAL EXCESS =    2.08

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   857.      12.17       (CFS)      105.         26.         25.         25.
                       (INCHES)    2.079      2.079       2.079       2.079
                       (AC-FT)      52.         52.         52.         52.

                       CUMULATIVE AREA =     .47 SQ MI


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

                     HYDROGRAPH AT STATION      E11
                       FOR PLAN 1, RATIO =  .68

  TOTAL RAINFALL =    2.78, TOTAL LOSS =    1.55, TOTAL EXCESS =    1.23

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   569.      12.17       (CFS)       62.         16.         15.         15.
                       (INCHES)    1.232      1.232       1.232       1.232
                       (AC-FT)      31.         31.         31.         31.

                       CUMULATIVE AREA =     .47 SQ MI


    ***            ***            ***            ***            ***
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HYDROGRAPH AT STATION E11
FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.68, TOTAL LOSS = 1.87, TOTAL EXCESS = 1.81

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
767.	12.17	(CFS)	92.	23.	22.	22.
		(INCHES)	1.811	1.811	1.811	1.811
		(AC-FT)	45.	45.	45.	45.

CUMULATIVE AREA = .47 SQ MI

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

HYDROGRAPH AT STATION E11
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.09, TOTAL LOSS = 2.01, TOTAL EXCESS = 2.08

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
857.	12.17	(CFS)	105.	26.	25.	25.
		(INCHES)	2.079	2.079	2.079	2.079
		(AC-FT)	52.	52.	52.	52.

CUMULATIVE AREA = .47 SQ MI

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

HYDROGRAPH AT STATION E11
FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 4.87, TOTAL LOSS = 2.25, TOTAL EXCESS = 2.61

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1028.	12.17	(CFS)	132.	33.	32.	32.
		(INCHES)	2.612	2.613	2.613	2.613
		(AC-FT)	65.	65.	65.	65.

CUMULATIVE AREA = .47 SQ MI

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              *            *
244 KK        *      E12   *
              *            *
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RUNOFF FROM E12

SUBBASIN RUNOFF DATA

246 BA SUBBASIN CHARACTERISTICS

TAREA .43 SUBBASIN AREA

PRECIPITATION DATA

PB STORM 4.09 BASIN TOTAL PRECIPITATION

31 PI INCREMENTAL PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.01	.00	.01
.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00		

247 LU UNIFORM LOSS RATE

STRTL .65 INITIAL LOSS

CNSTL .07 UNIFORM LOSS RATE

RTIMP .00 PERCENT IMPERVIOUS AREA

248 UD SCS DIMENSIONLESS UNITGRAPH

TLAG .46 LAG

***

UNIT HYDROGRAPH

30 END-OF-PERIOD ORDINATES

32.	95.	194.	316.	393.	414.	395.	347.	284.	207.
155.	117.	92.	70.	53.	41.	31.	23.	18.	14.
11.	8.	6.	5.	4.	3.	2.	1.	1.	0.

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.57, TOTAL EXCESS = 2.52

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
609.	12.33	(CFS)	114.	29.	28.	28.
		(INCHES)	2.462	2.518	2.518	2.518

(AC-FT)	56.	58.	58.	58.

CUMULATIVE AREA = .43 SQ MI

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

HYDROGRAPH AT STATION E12
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 2.78, TOTAL LOSS = 1.33, TOTAL EXCESS = 1.45

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
407.	12.33	(CFS)	67.	17.	16.	16.
		(INCHES)	1.450	1.450	1.450	1.450
		(AC-FT)	33.	33.	33.	33.

CUMULATIVE AREA = .43 SQ MI

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

HYDROGRAPH AT STATION E12
FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.68, TOTAL LOSS = 1.50, TOTAL EXCESS = 2.18

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
46.	12.33	(CFS)	100.	25.	24.	24.
		(INCHES)	2.155	2.178	2.178	2.178
		(AC-FT)	49.	50.	50.	50.

CUMULATIVE AREA = .43 SQ MI

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

HYDROGRAPH AT STATION E12
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.57, TOTAL EXCESS = 2.52

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
609.	12.33	(CFS)	114.	29.	28.	28.
		(INCHES)	2.462	2.518	2.518	2.518
		(AC-FT)	56.	58.	58.	58.

CUMULATIVE AREA = .43 SQ MI

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

HYDROGRAPH AT STATION E12
FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 4.87, TOTAL LOSS = 1.68, TOTAL EXCESS = 3.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
729.	12.33	(CFS)	140.	37.	36.	36.
		(INCHES)	3.026	3.188	3.188	3.188
		(AC-FT)	69.	73.	73.	73.

CUMULATIVE AREA = .43 SQ MI

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              **************
              *            *
249 KK        *        D1  *
              *            *
              **************
                             FLEMMING WASH
                             RUNOFF FROM D1

                SUBBASIN RUNOFF DATA

252 BA            SUBBASIN CHARACTERISTICS
                        TAREA          .56  SUBBASIN AREA

                  PRECIPITATION DATA

 ^^ ^B                  STORM        4.09  BASIN TOTAL PRECIPITATION

  PI                INCREMENTAL PRECIPITATION PATTERN
                        .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                        .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                        .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                        .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                        .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                        .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
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                        .03       .09       .09       .09       .01       .01       .01       .01       .01       .01
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                .00       .00       .00       .00       .00       .00       .00       .00

253 LU        UNIFORM LOSS RATE
                    STRTL        .65  INITIAL LOSS
                    CNSTL        .09  UNIFORM LOSS RATE
                    RTIMP        .00  PERCENT IMPERVIOUS AREA

254 UD        SCS DIMENSIONLESS UNITGRAPH
                     TLAG        .24  LAG

                                                  ***

                                                UNIT HYDROGRAPH
                                            16 END-OF-PERIOD ORDINATES
          179.      618.      942.      902.      672.      391.      244.      151.       94.       57.
           35.       22.       14.        9.        6.        3.

  TOTAL RAINFALL =    4.09, TOTAL LOSS =    1.73, TOTAL EXCESS =    2.36

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   1103.     12.08       (CFS)      141.         36.         34.         34.
                       (INCHES)    2.349      2.361       2.361       2.361
                       (AC-FT)      70.         71.         71.         71.

                       CUMULATIVE AREA =     .56 SQ MI


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

                     HYDROGRAPH AT STATION       D1
                       FOR PLAN 1, RATIO =  .68

  TOTAL RAINFALL =    2.78, TOTAL LOSS =    1.41, TOTAL EXCESS =    1.37

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
    740.     12.08       (CFS)       83.         21.         20.         20.
                       (INCHES)    1.374      1.374       1.374       1.374
                       (AC-FT)      41.         41.         41.         41.

                       CUMULATIVE AREA =     .56 SQ MI


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

                     HYDROGRAPH AT STATION       D1
                       FOR PLAN 1, RATIO =  .90

  TOTAL RAINFALL =    3.68, TOTAL LOSS =    1.64, TOTAL EXCESS =    2.04

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
    989.     12.08       (CFS)      123.         31.         30.         30.
                       (INCHES)    2.043      2.043       2.043       2.043
                       (AC-FT)      61.         61.         61.         61.

                       CUMULATIVE AREA =     .56 SQ MI
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***          ***          ***          ***          ***

                    HYDROGRAPH AT STATION      D1
                      FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL =    4.09, TOTAL LOSS =    1.73, TOTAL EXCESS =    2.36

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
  1103.      12.08      (CFS)      141.         36.         34.         34.
                      (INCHES)    2.349       2.361       2.361       2.361
                      (AC-FT)      70.         71.         71.         71.

                     CUMULATIVE AREA =     .56 SQ MI


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

                    HYDROGRAPH AT STATION      D1
                      FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL =    4.87, TOTAL LOSS =    1.88, TOTAL EXCESS =    2.99

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
  1319.      12.08      (CFS)      175.         45.         43.         43.
                      (INCHES)    2.910       2.987       2.987       2.987
                      (AC-FT)      87.         89.         89.         89.

                     CUMULATIVE AREA =     .56 SQ MI


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


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          *            *
255 KK    *        D2  *
          *            *
          **************
                      BEGIN WILLOW SPRINGS WASH
                      RUNOFF FROM D2

            SUBBASIN RUNOFF DATA

258 BA        SUBBASIN CHARACTERISTICS
                    TAREA         .32  SUBBASIN AREA

              PRECIPITATION DATA

 98 PB              STORM        4.09  BASIN TOTAL PRECIPITATION

 31 PI          INCREMENTAL PRECIPITATION PATTERN
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                    .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
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.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00		

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259 LU          UNIFORM LOSS RATE
                     STRTL        .65  INITIAL LOSS
                     CNSTL        .09  UNIFORM LOSS RATE
                     RTIMP        .00  PERCENT IMPERVIOUS AREA

 D              SCS DIMENSIONLESS UNITGRAPH
                      TLAG        .26  LAG

                                          ***

                                       UNIT HYDROGRAPH
                                   18 END-OF-PERIOD ORDINATES
            86.     292.     485.     505.     407.     257.     160.     104.      66.      42.
            27.      17.      11.       7.       5.       3.       2.       0.

  TOTAL RAINFALL =    4.09, TOTAL LOSS =    1.73, TOTAL EXCESS =    2.36

PEAK FLOW    TIME                          MAXIMUM AVERAGE FLOW
  (CFS)      (HR)                 6-HR       24-HR       72-HR     24.92-HR
   610.     12.17       (CFS)      81.         20.         20.         20.
                      (INCHES)   2.348       2.361       2.361       2.361
                       (AC-FT)     40.         40.         40.         40.

                      CUMULATIVE AREA =     .32 SQ MI


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

                     HYDROGRAPH AT STATION       D2
                       FOR PLAN 1, RATIO =  .68

  TOTAL RAINFALL =    2.78, TOTAL LOSS =    1.41, TOTAL EXCESS =    1.37

PEAK FLOW    TIME                          MAXIMUM AVERAGE FLOW
  (CFS)      (HR)                 6-HR       24-HR       72-HR     24.92-HR
```

409.	12.17	(CFS)	47.	12.	11.	11.
		(INCHES)	1.374	1.374	1.374	1.374
		(AC-FT)	23.	23.	23.	23.

CUMULATIVE AREA = .32 SQ MI

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

HYDROGRAPH AT STATION D2
FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.68, TOTAL LOSS = 1.64, TOTAL EXCESS = 2.04

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
547.	12.17	(CFS)	70.	18.	17.	17.
		(INCHES)	2.043	2.043	2.043	2.043
		(AC-FT)	35.	35.	35.	35.

CUMULATIVE AREA = .32 SQ MI

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

HYDROGRAPH AT STATION D2
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.73, TOTAL EXCESS = 2.36

FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
610.	12.17	(CFS)	81.	20.	20.	20.
		(INCHES)	2.348	2.361	2.361	2.361
		(AC-FT)	40.	40.	40.	40.

CUMULATIVE AREA = .32 SQ MI

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

HYDROGRAPH AT STATION D2
FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 4.87, TOTAL LOSS = 1.88, TOTAL EXCESS = 2.99

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
730.	12.17	(CFS)	100.	26.	25.	25.
		(INCHES)	2.910	2.987	2.987	2.987
		(AC-FT)	50.	51.	51.	51.

CUMULATIVE AREA = .32 SQ MI

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              **************
              *            *
261 KK        *        16  *
              *            *
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HYDROGRAPH COMBINATION, D1 AND D2

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263 HC          HYDROGRAPH COMBINATION
                     ICOMP          2  NUMBER OF HYDROGRAPHS TO COMBINE

                                                                  ***

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HYDROGRAPH AT STATION 16
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1138.	12.08	(CFS)	130.	33.	31.	31.
		(INCHES)	1.374	1.374	1.374	1.374
		(AC-FT)	64.	64.	64.	64.

CUMULATIVE AREA = .88 SQ MI

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    ***             ***             ***             ***             ***
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HYDROGRAPH AT STATION 16
FOR PLAN 1, RATIO = .90

K FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1524.	12.08	(CFS)	193.	48.	47.	47.
		(INCHES)	2.043	2.043	2.043	2.043
		(AC-FT)	96.	96.	96.	96.

CUMULATIVE AREA = .88 SQ MI

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    ***             ***             ***             ***             ***
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HYDROGRAPH AT STATION 16
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1699.	12.08	(CFS)	222.	56.	54.	54.
		(INCHES)	2.349	2.361	2.361	2.361
		(AC-FT)	110.	111.	111.	111.

CUMULATIVE AREA = .88 SQ MI

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    ***             ***             ***             ***             ***
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HYDROGRAPH AT STATION 16
FOR PLAN 1, RATIO = 1.19

PEAK FLOW TIME MAXIMUM AVERAGE FLOW

(CFS)	(HR)		6-HR	24-HR	72-HR	24.92-HR
2031.	12.08	(CFS)	275.	71.	68.	68.
		(INCHES)	2.910	2.987	2.987	2.987
		(AC-FT)	137.	140.	140.	140.

CUMULATIVE AREA = .88 SQ MI

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          *            *
264 KK    *       R16  *
          *            *
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ROUTING 16 TO 17

HYDROGRAPH ROUTING DATA

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266 RM        MUSKINGUM ROUTING
                   NSTPS        1 NUMBER OF SUBREACHES
                   AMSKK      .11 MUSKINGUM K
                       X      .20 MUSKINGUM X
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*** *** *** *** ***

HYDROGRAPH AT STATION R16
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		6-HR	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR
1070.	12.25	(CFS)	130.	33.	31.	31.
		(INCHES)	1.374	1.374	1.374	1.374
		(AC-FT)	64.	64.	64.	64.

CUMULATIVE AREA = .88 SQ MI

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

HYDROGRAPH AT STATION R16
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		6-HR	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR
1433.	12.25	(CFS)	193.	48.	47.	47.
		(INCHES)	2.043	2.043	2.043	2.043
		(AC-FT)	96.	96.	96.	96.

CUMULATIVE AREA = .88 SQ MI

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

HYDROGRAPH AT STATION R16

FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
598.	12.25	(CFS)	222.	56.	54.	54.
		(INCHES)	2.348	2.361	2.361	2.361
		(AC-FT)	110.	111.	111.	111.

CUMULATIVE AREA = .88 SQ MI

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

HYDROGRAPH AT STATION R16
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1911.	12.25	(CFS)	275.	71.	68.	68.
		(INCHES)	2.909	2.987	2.987	2.987
		(AC-FT)	137.	140.	140.	140.

CUMULATIVE AREA = .88 SQ MI

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              *            *
267 KK        *      F2C   *
              *            *
              **************
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RUNOFF FROM F2C

SUBBASIN RUNOFF DATA

269 BA SUBBASIN CHARACTERISTICS
TAREA .53 SUBBASIN AREA

PRECIPITATION DATA

98 PB STORM 4.09 BASIN TOTAL PRECIPITATION

31 PI INCREMENTAL PRECIPITATION PATTERN

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.00	.00	.00	.00	.00	.00	.00	.01	.00	.01

.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00		

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270 LU          UNIFORM LOSS RATE
                     STRTL        .65  INITIAL LOSS
                     CNSTL        .06  UNIFORM LOSS RATE
                     RTIMP        .00  PERCENT IMPERVIOUS AREA

271 UD          SCS DIMENSIONLESS UNITGRAPH
                      TLAG        .30  LAG

                                                  ***

                                              UNIT HYDROGRAPH
                                         20 END-OF-PERIOD ORDINATES
          105.     338.     642.     749.     688.     538.     342.     229.     157.     105.
           71.      47.      32.      21.      14.      10.       7.       5.       3.       1.

   TOTAL RAINFALL =    4.09, TOTAL LOSS =    1.48, TOTAL EXCESS =    2.61

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   962.      12.17        (CFS)     144.         37.         36.         36.
                        (INCHES)   2.524      2.613       2.613       2.613
                         (AC-FT)     71.         74.         74.         74.

                       CUMULATIVE AREA =     .53 SQ MI


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

                     HYDROGRAPH AT STATION      F2C
                       FOR PLAN 1, RATIO =  .68

   TOTAL RAINFALL =    2.78, TOTAL LOSS =    1.28, TOTAL EXCESS =    1.50

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   647.      12.17        (CFS)      86.         21.         21.         21.
                        (INCHES)   1.501      1.502       1.502       1.502
                         (AC-FT)     42.         42.         42.         42.

                       CUMULATIVE AREA =     .53 SQ MI


    ***            ***            ***            ***            ***
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HYDROGRAPH AT STATION F2C
FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.68, TOTAL LOSS = 1.42, TOTAL EXCESS = 2.26

PEAK FLOW (CFS)	TIME (HR)		6-HR	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR
863.	12.17	(CFS)	126.	32.	31.	31.
		(INCHES)	2.216	2.257	2.257	2.257
		(AC-FT)	63.	64.	64.	64.

CUMULATIVE AREA = .53 SQ MI

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

HYDROGRAPH AT STATION F2C
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.48, TOTAL EXCESS = 2.61

PEAK FLOW (CFS)	TIME (HR)		6-HR	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR
962.	12.17	(CFS)	144.	37.	36.	36.
		(INCHES)	2.524	2.613	2.613	2.613
		(AC-FT)	71.	74.	74.	74.

CUMULATIVE AREA = .53 SQ MI

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

HYDROGRAPH AT STATION F2C
FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 4.87, TOTAL LOSS = 1.57, TOTAL EXCESS = 3.30

PEAK FLOW (CFS)	TIME (HR)		6-HR	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR
1148.	12.17	(CFS)	176.	47.	45.	45.
		(INCHES)	3.089	3.300	3.300	3.300
		(AC-FT)	87.	93.	93.	93.

CUMULATIVE AREA = .53 SQ MI

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              *            *
277 KK        *      17A   *
              *            *
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HYDROGRAPH COMBINATION, FLOW FROM 16 AND F2C; ABOVE CONFLUENCE

274 HC HYDROGRAPH COMBINATION

ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

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

HYDROGRAPH AT STATION 17A
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1684.	12.17	(CFS)	216.	54.	52.	52.
		(INCHES)	1.422	1.422	1.422	1.422
		(AC-FT)	107.	107.	107.	107.

CUMULATIVE AREA = 1.41 SQ MI

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

HYDROGRAPH AT STATION 17A
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
2252.	12.17	(CFS)	320.	81.	78.	78.
		(INCHES)	2.108	2.123	2.123	2.123
		(AC-FT)	158.	160.	160.	160.

CUMULATIVE AREA = 1.41 SQ MI

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

HYDROGRAPH AT STATION 17A
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
2511.	12.17	(CFS)	366.	93.	90.	90.
		(INCHES)	2.414	2.456	2.456	2.456
		(AC-FT)	182.	185.	185.	185.

CUMULATIVE AREA = 1.41 SQ MI

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

HYDROGRAPH AT STATION 17A
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
3001.	12.17	(CFS)	451.	118.	113.	113.
		(INCHES)	2.977	3.105	3.105	3.105
		(AC-FT)	224.	233.	233.	233.

CUMULATIVE AREA = 1.41 SQ MI

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              **************
              *            *
275 KK        *      F2D   *
              *            *
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                      RUNOFF FROM F2D

          SUBBASIN RUNOFF DATA

277 BA        SUBBASIN CHARACTERISTICS
                  TAREA          .23  SUBBASIN AREA

              PRECIPITATION DATA

 98 PB            STORM         4.09  BASIN TOTAL PRECIPITATION

 31 PI          INCREMENTAL PRECIPITATION PATTERN
                  .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
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                  .01     .01     .01     .01     .01     .01     .01     .01     .03     .03
                  .03     .09     .09     .09     .01     .01     .01     .01     .01     .01
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                  .00     .00     .00     .00     .00     .00     .00     .00
278 LU        UNIFORM LOSS RATE
                  STRTL          .65  INITIAL LOSS
                  CNSTL          .10  UNIFORM LOSS RATE
                  RTIMP          .00  PERCENT IMPERVIOUS AREA

279 UD        SCS DIMENSIONLESS UNITGRAPH
                  TLAG           .53  LAG
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UNIT HYDROGRAPH
34 END-OF-PERIOD ORDINATES

12.	35.	72.	122.	166.	190.	194.	185.	165.	140.
108.	83.	65.	52.	41.	33.	26.	20.	16.	13.
10.	8.	6.	5.	4.	3.	2.	2.	2.	1.
1.	1.	0.	0.						

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.80, TOTAL EXCESS = 2.29

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
293.	12.42	(CFS)	57.	14.	14.	14.
		(INCHES)	2.287	2.292	2.292	2.292
		(AC-FT)	28.	28.	28.	28.

CUMULATIVE AREA = .23 SQ MI

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

HYDROGRAPH AT STATION F2D
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 2.78, TOTAL LOSS = 1.44, TOTAL EXCESS = 1.34

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
'94.	12.42	(CFS)	33.	8.	8.	8.
		(INCHES)	1.341	1.341	1.341	1.341
		(AC-FT)	16.	16.	16.	16.

CUMULATIVE AREA = .23 SQ MI

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

HYDROGRAPH AT STATION F2D
FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.68, TOTAL LOSS = 1.69, TOTAL EXCESS = 1.99

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
262.	12.42	(CFS)	49.	12.	12.	12.
		(INCHES)	1.989	1.989	1.989	1.989
		(AC-FT)	24.	24.	24.	24.

CUMULATIVE AREA = .23 SQ MI

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

HYDROGRAPH AT STATION F2D
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.80, TOTAL EXCESS = 2.29

PEAK FLOW TIME MAXIMUM AVERAGE FLOW

(CFS)	(HR)		6-HR	24-HR	72-HR	24.92-HR
293.	12.42	(CFS)	57.	14.	14.	14.
		(INCHES)	2.287	2.292	2.292	2.292
		(AC-FT)	28.	28.	28.	28.

CUMULATIVE AREA = .23 SQ MI

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

HYDROGRAPH AT STATION F2D
FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 4.87, TOTAL LOSS = 1.97, TOTAL EXCESS = 2.90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
352.	12.42	(CFS)	70.	18.	17.	17.
		(INCHES)	2.845	2.898	2.898	2.898
		(AC-FT)	35.	36.	36.	36.

CUMULATIVE AREA = .23 SQ MI

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*            *
*        17  *
*            *
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KK

HYDROGRAPH COMBINATION, FLOW FROM F2C, 16 AND F2D; BELOW CONFLUENCE

282 HC HYDROGRAPH COMBINATION
ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

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

HYDROGRAPH AT STATION 17
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1853.	12.25	(CFS)	249.	62.	60.	60.
		(INCHES)	1.411	1.411	1.411	1.411
		(AC-FT)	123.	123.	123.	123.

CUMULATIVE AREA = 1.64 SQ MI

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

HYDROGRAPH AT STATION 17
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
2483.	12.25	(CFS)	369.	93.	89.	89.
		(INCHES)	2.091	2.105	2.105	2.105
		(AC-FT)	183.	184.	184.	184.

CUMULATIVE AREA = 1.64 SQ MI

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

HYDROGRAPH AT STATION 17
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
2768.	12.25	(CFS)	423.	107.	103.	103.
		(INCHES)	2.396	2.433	2.433	2.433
		(AC-FT)	210.	213.	213.	213.

CUMULATIVE AREA = 1.64 SQ MI

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

HYDROGRAPH AT STATION 17
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
10.	12.25	(CFS)	522.	136.	131.	131.
		(INCHES)	2.958	3.076	3.076	3.076
		(AC-FT)	259.	269.	269.	269.

CUMULATIVE AREA = 1.64 SQ MI

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          **************
          *            *
283 KK    *      R17   *
          *            *
          **************
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ROUTING 17 TO 19A

HYDROGRAPH ROUTING DATA

285 RM MUSKINGUM ROUTING

NSTPS	1	NUMBER OF SUBREACHES
AMSKK	.17	MUSKINGUM K
X	.20	MUSKINGUM X

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

HYDROGRAPH AT STATION R17
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
661.	12.33	(CFS)	249.	62.	60.	60.
		(INCHES)	1.411	1.411	1.411	1.411
		(AC-FT)	123.	123.	123.	123.

CUMULATIVE AREA = 1.64 SQ MI

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

HYDROGRAPH AT STATION R17
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
2229.	12.33	(CFS)	369.	93.	89.	89.
		(INCHES)	2.090	2.105	2.105	2.105
		(AC-FT)	183.	184.	184.	184.

CUMULATIVE AREA = 1.64 SQ MI

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

HYDROGRAPH AT STATION R17
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
2486.	12.33	(CFS)	423.	107.	103.	103.
		(INCHES)	2.395	2.433	2.433	2.433
		(AC-FT)	210.	213.	213.	213.

CUMULATIVE AREA = 1.64 SQ MI

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

HYDROGRAPH AT STATION R17
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
2975.	12.33	(CFS)	522.	136.	131.	131.
		(INCHES)	2.957	3.076	3.076	3.076
		(AC-FT)	259.	269.	269.	269.

CUMULATIVE AREA = 1.64 SQ MI

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          *          *
286 KK    *     F2F  *
          *          *
          **************
                    RUNOFF FROM F2F

        SUBBASIN RUNOFF DATA

288 BA        SUBBASIN CHARACTERISTICS
                  TAREA        .17  SUBBASIN AREA

              PRECIPITATION DATA

98 PB             STORM       4.09  BASIN TOTAL PRECIPITATION

31 PI         INCREMENTAL PRECIPITATION PATTERN
                  .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
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                  .03      .09      .09      .09      .01      .01      .01      .01      .01      .01
                  .01      .01      .01      .01      .01      .01      .00      .00      .00      .00
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                  .00      .00      .00      .00      .00      .00      .00      .00

289 LU        UNIFORM LOSS RATE
                  STRTL        .65  INITIAL LOSS
                  CNSTL        .06  UNIFORM LOSS RATE
                  RTIMP        .00  PERCENT IMPERVIOUS AREA

290 UD        SCS DIMENSIONLESS UNITGRAPH
                  TLAG         .22  LAG

                                          ***

                                   UNIT HYDROGRAPH
                              15 END-OF-PERIOD ORDINATES
        67.     226.     313.     276.     179.     102.      62.      37.      22.      13.
         8.       5.       3.       2.       1.
```

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.48, TOTAL EXCESS = 2.61

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
356.	12.08	(CFS)	46.	12.	12.	12.
		(INCHES)	2.526	2.613	2.613	2.613
		(AC-FT)	23.	24.	24.	24.

CUMULATIVE AREA = .17 SQ MI

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

HYDROGRAPH AT STATION F2F
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 2.78, TOTAL LOSS = 1.28, TOTAL EXCESS = 1.50

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
240.	12.08	(CFS)	27.	7.	7.	7.
		(INCHES)	1.501	1.502	1.502	1.502
		(AC-FT)	14.	14.	14.	14.

CUMULATIVE AREA = .17 SQ MI

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

HYDROGRAPH AT STATION F2F
FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.68, TOTAL LOSS = 1.42, TOTAL EXCESS = 2.26

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
320.	12.08	(CFS)	41.	10.	10.	10.
		(INCHES)	2.218	2.257	2.257	2.257
		(AC-FT)	20.	20.	20.	20.

CUMULATIVE AREA = .17 SQ MI

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

HYDROGRAPH AT STATION F2F
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.48, TOTAL EXCESS = 2.61

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
356.	12.08	(CFS)	46.	12.	12.	12.
		(INCHES)	2.526	2.613	2.613	2.613
		(AC-FT)	23.	24.	24.	24.

CUMULATIVE AREA = .17 SQ MI

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

                    HYDROGRAPH AT STATION      F2F
                      FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL =    4.87, TOTAL LOSS =    1.57, TOTAL EXCESS =    3.30

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   425.      12.08       (CFS)      56.         15.         15.         15.
                       (INCHES)    3.090       3.300       3.300       3.300
                        (AC-FT)    28.         30.         30.         30.

                      CUMULATIVE AREA =     .17 SQ MI


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          *            *
291 KK    *       19A  *
          *            *
          **************
                    HYDROGRAPH COMBINATION, FLOW FROM 17 AND F2F; ABOVE CONFLUENCE

293 HC          HYDROGRAPH COMBINATION
                     ICOMP          2  NUMBER OF HYDROGRAPHS TO COMBINE

                                                          ***

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

                    HYDROGRAPH AT STATION      19A
                      FOR PLAN 1, RATIO =  .68

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
  1784.      12.33       (CFS)     276.         69.         67.         67.
                       (INCHES)    1.419       1.419       1.419       1.419
                        (AC-FT)    137.        137.        137.        137.

                      CUMULATIVE AREA =    1.81 SQ MI


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

                    HYDROGRAPH AT STATION      19A
                      FOR PLAN 1, RATIO =  .90

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
  2395.      12.33       (CFS)     409.        103.         99.         99.
                       (INCHES)    2.102       2.119       2.119       2.119
                        (AC-FT)    203.        205.        205.        205.

                      CUMULATIVE AREA =    1.81 SQ MI
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*** *** *** *** ***

HYDROGRAPH AT STATION 19A
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
2671.	12.33	(CFS)	469.	119.	115.	115.
		(INCHES)	2.407	2.450	2.450	2.450
		(AC-FT)	232.	236.	236.	236.

CUMULATIVE AREA = 1.81 SQ MI

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

HYDROGRAPH AT STATION 19A
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
3196.	12.33	(CFS)	578.	151.	145.	145.
		(INCHES)	2.969	3.097	3.097	3.097
		(AC-FT)	287.	299.	299.	299.

CUMULATIVE AREA = 1.81 SQ MI

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              *            *
294 KK        *       F2A  *
              *            *
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RUNOFF FROM F2A

SUBBASIN RUNOFF DATA

296 BA SUBBASIN CHARACTERISTICS
TAREA .29 SUBBASIN AREA

PRECIPITATION DATA

98 PB STORM 4.09 BASIN TOTAL PRECIPITATION

31 PI INCREMENTAL PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00		

297 LU UNIFORM LOSS RATE

STRTL	.65	INITIAL LOSS
CNSTL	.06	UNIFORM LOSS RATE
RTIMP	.00	PERCENT IMPERVIOUS AREA

298 UD SCS DIMENSIONLESS UNITGRAPH

TLAG	.30	LAG

***

UNIT HYDROGRAPH
20 END-OF-PERIOD ORDINATES

57.	185.	351.	410.	377.	295.	187.	125.	86.	57.
39.	26.	17.	12.	8.	5.	4.	3.	2.	1.

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.48, TOTAL EXCESS = 2.61

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
526.	12.17	(CFS)	79.	20.	20.	20.
		(INCHES)	2.524	2.613	2.613	2.613
		(AC-FT)	39.	40.	40.	40.

CUMULATIVE AREA = .29 SQ MI

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

HYDROGRAPH AT STATION F2A
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 2.78, TOTAL LOSS = 1.28, TOTAL EXCESS = 1.50

PEAK FLOW)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
354.	12.17	(CFS)	47.	12.	11.	11.
		(INCHES)	1.501	1.502	1.502	1.502
		(AC-FT)	23.	23.	23.	23.

CUMULATIVE AREA = .29 SQ MI

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

HYDROGRAPH AT STATION F2A
FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.68, TOTAL LOSS = 1.42, TOTAL EXCESS = 2.26

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
472.	12.17	(CFS)	69.	18.	17.	17.
		(INCHES)	2.216	2.257	2.257	2.257
		(AC-FT)	34.	35.	35.	35.

CUMULATIVE AREA = .29 SQ MI

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

HYDROGRAPH AT STATION F2A
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.48, TOTAL EXCESS = 2.61

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
526.	12.17	(CFS)	79.	20.	20.	20.
		(INCHES)	2.524	2.613	2.613	2.613
		(AC-FT)	39.	40.	40.	40.

CUMULATIVE AREA = .29 SQ MI

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

HYDROGRAPH AT STATION F2A
FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 4.87, TOTAL LOSS = 1.57, TOTAL EXCESS = 3.30

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
628.	12.17	(CFS)	96.	26.	25.	25.
		(INCHES)	3.089	3.300	3.300	3.300
		(AC-FT)	48.	51.	51.	51.

CUMULATIVE AREA = .29 SQ MI

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              **************
              *            *
299 KK        *      F2B   *
              *            *
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**************
                RUNOFF FROM F2B

          SUBBASIN RUNOFF DATA

BA          SUBBASIN CHARACTERISTICS
                TAREA          .43  SUBBASIN AREA

            PRECIPITATION DATA

98 PB           STORM         4.09  BASIN TOTAL PRECIPITATION

31 PI         INCREMENTAL PRECIPITATION PATTERN
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .01     .00     .01
                .01     .01     .01     .01     .01     .01     .01     .01     .03     .03
                .03     .09     .09     .09     .01     .01     .01     .01     .01     .01
                .01     .01     .01     .01     .01     .01     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00

302 LU      UNIFORM LOSS RATE
                STRTL          .65  INITIAL LOSS
                CNSTL          .06  UNIFORM LOSS RATE
                RTIMP          .00  PERCENT IMPERVIOUS AREA

303 UD      SCS DIMENSIONLESS UNITGRAPH
                TLAG           .30  LAG

                                        ***

                                   UNIT HYDROGRAPH
                              20 END-OF-PERIOD ORDINATES
          85.     275.     521.     608.     558.     437.     277.     186.     127.      85.
          58.      38.      26.      17.      12.       8.       6.       4.       2.       1.

TOTAL RAINFALL =    4.09, TOTAL LOSS =    1.48, TOTAL EXCESS =    2.61
```

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
780.	12.17	(CFS)	117.	30.	29.	29.
		(INCHES)	2.524	2.613	2.613	2.613
		(AC-FT)	58.	60.	60.	60.

CUMULATIVE AREA = .43 SQ MI

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

HYDROGRAPH AT STATION F2B
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 2.78, TOTAL LOSS = 1.28, TOTAL EXCESS = 1.50

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
525.	12.17	(CFS)	69.	17.	17.	17.
		(INCHES)	1.501	1.502	1.502	1.502
		(AC-FT)	34.	34.	34.	34.

CUMULATIVE AREA = .43 SQ MI

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

HYDROGRAPH AT STATION F2B
FOR PLAN 1, RATIO = .90

TAL RAINFALL = 3.68, TOTAL LOSS = 1.42, TOTAL EXCESS = 2.26

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
700.	12.17	(CFS)	102.	26.	25.	25.
		(INCHES)	2.216	2.257	2.257	2.257
		(AC-FT)	51.	52.	52.	52.

CUMULATIVE AREA = .43 SQ MI

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

HYDROGRAPH AT STATION F2B
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.48, TOTAL EXCESS = 2.61

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
780.	12.17	(CFS)	117.	30.	29.	29.
		(INCHES)	2.524	2.613	2.613	2.613
		(AC-FT)	58.	60.	60.	60.

CUMULATIVE AREA = .43 SQ MI

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

HYDROGRAPH AT STATION F2B

FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 4.87, TOTAL LOSS = 1.57, TOTAL EXCESS = 3.30

FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
931.	12.17	(CFS)	143.	38.	37.	37.
		(INCHES)	3.089	3.300	3.300	3.300
		(AC-FT)	71.	76.	76.	76.

CUMULATIVE AREA = .43 SQ MI

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          **************
          *            *
304 KK    *        18  *
          *            *
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HYDROGRAPH COMBINATION, FLOW FROM F2A AND F2B

306 HC HYDROGRAPH COMBINATION
ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

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

HYDROGRAPH AT STATION 18
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
879.	12.17	(CFS)	116.	29.	28.	28.
		(INCHES)	1.501	1.502	1.502	1.502
		(AC-FT)	58.	58.	58.	58.

CUMULATIVE AREA = .72 SQ MI

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

HYDROGRAPH AT STATION 18
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1173.	12.17	(CFS)	172.	44.	42.	42.
		(INCHES)	2.216	2.257	2.257	2.257
		(AC-FT)	85.	87.	87.	87.

CUMULATIVE AREA = .72 SQ MI

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

HYDROGRAPH AT STATION 18
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
306.	12.17	(CFS)	195.	51.	49.	49.
		(INCHES)	2.524	2.613	2.613	2.613
		(AC-FT)	97.	100.	100.	100.

CUMULATIVE AREA = .72 SQ MI

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

HYDROGRAPH AT STATION 18
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1560.	12.17	(CFS)	239.	64.	62.	62.
		(INCHES)	3.089	3.300	3.300	3.300
		(AC-FT)	119.	127.	127.	127.

CUMULATIVE AREA = .72 SQ MI

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              **************
              *            *
307 KK        *       R18  *
              *            *
              **************
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ROUTING 18 TO 19B

HYDROGRAPH ROUTING DATA

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309 RM          MUSKINGUM ROUTING
                     NSTPS        1 NUMBER OF SUBREACHES
                     AMSKK      .12 MUSKINGUM K
                         X      .20 MUSKINGUM X
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HYDROGRAPH AT STATION R18
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
809.	12.25	(CFS)	116.	29.	28.	28.
		(INCHES)	1.501	1.502	1.502	1.502
		(AC-FT)	58.	58.	58.	58.

CUMULATIVE AREA = .72 SQ MI

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

HYDROGRAPH AT STATION R18
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1081.	12.25	(CFS)	172.	44.	42.	42.
		(INCHES)	2.215	2.257	2.257	2.257
		(AC-FT)	85.	87.	87.	87.

CUMULATIVE AREA = .72 SQ MI

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

HYDROGRAPH AT STATION R18
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1204.	12.25	(CFS)	195.	51.	49.	49.
		(INCHES)	2.523	2.613	2.613	2.613
		(AC-FT)	97.	100.	100.	100.

CUMULATIVE AREA = .72 SQ MI

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

HYDROGRAPH AT STATION R18
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1438.	12.25	(CFS)	239.	64.	62.	62.
		(INCHES)	3.088	3.300	3.300	3.300
		(AC-FT)	119.	127.	127.	127.

CUMULATIVE AREA = .72 SQ MI

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              **************
              *            *
310 KK        *      F2E   *
              *            *
              **************
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RUNOFF FROM F2E

SUBBASIN RUNOFF DATA

BA SUBBASIN CHARACTERISTICS
TAREA .23 SUBBASIN AREA

PRECIPITATION DATA

98 PB STORM 4.09 BASIN TOTAL PRECIPITATION

'I INCREMENTAL PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.01	.00	.01
.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00		

313 LU UNIFORM LOSS RATE

STRTL .65 INITIAL LOSS
CNSTL .06 UNIFORM LOSS RATE
RTIMP .00 PERCENT IMPERVIOUS AREA

314 UD SCS DIMENSIONLESS UNITGRAPH

TLAG .31 LAG

***

UNIT HYDROGRAPH
21 END-OF-PERIOD ORDINATES

42.	135.	263.	315.	297.	240.	159.	105.	73.	49.
34.	23.	15.	11.	7.	5.	3.	2.	2.	1.
0.									

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.48, TOTAL EXCESS = 2.61

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
10.	12.17	(CFS)	62.	16.	16.	16.
		(INCHES)	2.524	2.613	2.613	2.613
		(AC-FT)	31.	32.	32.	32.

CUMULATIVE AREA = .23 SQ MI

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

                HYDROGRAPH AT STATION      F2E
                  FOR PLAN 1, RATIO =  .68

  TOTAL RAINFALL =   2.78, TOTAL LOSS =   1.28, TOTAL EXCESS =   1.50

PEAK FLOW    TIME                          MAXIMUM AVERAGE FLOW
  (CFS)      (HR)                 6-HR      24-HR      72-HR    24.92-HR
   276.     12.17      (CFS)      37.         9.         9.         9.
                     (INCHES)    1.501      1.502      1.502      1.502
                     (AC-FT)      18.        18.        18.        18.

                    CUMULATIVE AREA =     .23 SQ MI


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

                HYDROGRAPH AT STATION      F2E
                  FOR PLAN 1, RATIO =  .90

  TOTAL RAINFALL =   3.68, TOTAL LOSS =   1.42, TOTAL EXCESS =   2.26

PEAK FLOW    TIME                          MAXIMUM AVERAGE FLOW
  (CFS)      (HR)                 6-HR      24-HR      72-HR    24.92-HR
   368.     12.17      (CFS)      55.        14.        13.        13.
                     (INCHES)    2.216      2.257      2.257      2.257
                     (AC-FT)      27.        28.        28.        28.

                    CUMULATIVE AREA =     .23 SQ MI


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

                HYDROGRAPH AT STATION      F2E
                  FOR PLAN 1, RATIO = 1.00

  TOTAL RAINFALL =   4.09, TOTAL LOSS =   1.48, TOTAL EXCESS =   2.61

PEAK FLOW    TIME                          MAXIMUM AVERAGE FLOW
  (CFS)      (HR)                 6-HR      24-HR      72-HR    24.92-HR
   410.     12.17      (CFS)      62.        16.        16.        16.
                     (INCHES)    2.524      2.613      2.613      2.613
                     (AC-FT)      31.        32.        32.        32.

                    CUMULATIVE AREA =     .23 SQ MI


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

                HYDROGRAPH AT STATION      F2E
                  FOR PLAN 1, RATIO = 1.19

  TAL RAINFALL =   4.87, TOTAL LOSS =   1.57, TOTAL EXCESS =   3.30

PEAK FLOW    TIME                          MAXIMUM AVERAGE FLOW
  (CFS)      (HR)                 6-HR      24-HR      72-HR    24.92-HR
   489.     12.17      (CFS)      76.        20.        20.        20.
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(INCHES)	3.089	3.300	3.300	3.300
(AC-FT)	38.	40.	40.	40.

CUMULATIVE AREA = .23 SQ MI

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              **************
              *            *
315 KK        *      19B   *
              *            *
              **************
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HYDROGRAPH COMBINATION, FLOW FROM 18 AND F2E;
ABOVE CONFLUENCE WITH WILLOW SPRINGS WASH

318 HC HYDROGRAPH COMBINATION
ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

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

HYDROGRAPH AT STATION 19B
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1072.	12.25	(CFS)	153.	38.	37.	37.
		(INCHES)	1.501	1.502	1.502	1.502
		(AC-FT)	76.	76.	76.	76.

CUMULATIVE AREA = .95 SQ MI

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

HYDROGRAPH AT STATION 19B
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1432.	12.25	(CFS)	226.	58.	56.	56.
		(INCHES)	2.215	2.257	2.257	2.257
		(AC-FT)	112.	114.	114.	114.

CUMULATIVE AREA = .95 SQ MI

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

HYDROGRAPH AT STATION 19B
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1595.	12.25	(CFS)	258.	67.	64.	64.

```
                    (INCHES)     2.523       2.613       2.613       2.613
                     (AC-FT)     128.        132.        132.        132.

                    CUMULATIVE AREA =     .95 SQ MI


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

                    HYDROGRAPH AT STATION      19B
                      FOR PLAN 1, RATIO = 1.19

PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                6-HR       24-HR       72-HR     24.92-HR
  1905.     12.25       (CFS)     316.        84.         81.         81.
                    (INCHES)     3.088       3.300       3.300       3.300
                     (AC-FT)     156.        167.        167.        167.

                    CUMULATIVE AREA =     .95 SQ MI


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


          **************
          *            *
319 KK    *        19  *
          *            *
          **************
                    HYDROGRAPH COMBINATION, FLOW FROM 17, 18, 19A AND 19B; BELOW CONFLUENCE

321 HC          HYDROGRAPH COMBINATION
                     ICOMP          2  NUMBER OF HYDROGRAPHS TO COMBINE

                                                          ***

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

                    HYDROGRAPH AT STATION       19
                      FOR PLAN 1, RATIO =  .68

PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                6-HR       24-HR       72-HR     24.92-HR
  2808.     12.33       (CFS)     430.        107.        103.        103.
                    (INCHES)     1.447       1.448       1.448       1.448
                     (AC-FT)     213.        213.        213.        213.

                    CUMULATIVE AREA =    2.76 SQ MI


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

                    HYDROGRAPH AT STATION       19
                      FOR PLAN 1, RATIO =  .90

K FLOW        TIME                        MAXIMUM AVERAGE FLOW
(CFS)         (HR)                6-HR       24-HR       72-HR     24.92-HR
  3762.     12.33       (CFS)     636.        161.        155.        155.
                    (INCHES)     2.141       2.166       2.166       2.166
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                    (AC-FT)      315.       319.       319.       319.

                    CUMULATIVE AREA =    2.76 SQ MI


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

                     HYDROGRAPH AT STATION       19
                       FOR PLAN 1, RATIO = 1.00

PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR      24-HR      72-HR     24.92-HR
   4195.     12.33       (CFS)      726.       186.       179.        179.
                       (INCHES)    2.447      2.506      2.506       2.506
                       (AC-FT)     360.       369.       369.        369.

                    CUMULATIVE AREA =    2.76 SQ MI


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

                     HYDROGRAPH AT STATION       19
                       FOR PLAN 1, RATIO = 1.19

PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR      24-HR      72-HR     24.92-HR
   5017.     12.33       (CFS)      894.       235.       226.        226.
                       (INCHES)    3.010      3.167      3.167       3.167
                       (AC-FT)     443.       466.       466.        466.

                    CUMULATIVE AREA =    2.76 SQ MI


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


          **************
          *            *
322 KK    *       R19  *
          *            *
          **************
                       ROUTING 19 TO 31A

            HYDROGRAPH ROUTING DATA

324 RM        MUSKINGUM ROUTING
                    NSTPS         2 NUMBER OF SUBREACHES
                    AMSKK       .16 MUSKINGUM K
                        X       .20 MUSKINGUM X

                                                          ***

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

                     HYDROGRAPH AT STATION      R19
                       FOR PLAN 1, RATIO =  .68

PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
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(CFS)	(HR)		6-HR	24-HR	72-HR	24.92-HR
2675.	12.50	(CFS)	430.	107.	103.	103.
		(INCHES)	1.447	1.448	1.448	1.448
		(AC-FT)	213.	213.	213.	213.

CUMULATIVE AREA = 2.76 SQ MI

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

HYDROGRAPH AT STATION R19
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
3587.	12.50	(CFS)	635.	161.	155.	155.
		(INCHES)	2.141	2.166	2.166	2.166
		(AC-FT)	315.	319.	319.	319.

CUMULATIVE AREA = 2.76 SQ MI

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

HYDROGRAPH AT STATION R19
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
[illegible]00.	12.50	(CFS)	726.	186.	179.	179.
		(INCHES)	2.447	2.506	2.506	2.506
		(AC-FT)	360.	369.	369.	369.

CUMULATIVE AREA = 2.76 SQ MI

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

HYDROGRAPH AT STATION R19
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
4784.	12.50	(CFS)	893.	235.	226.	226.
		(INCHES)	3.010	3.167	3.167	3.167
		(AC-FT)	443.	466.	466.	466.

CUMULATIVE AREA = 2.76 SQ MI

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*            *
*        F2  *
*            *
**************
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5 KK

RUNOFF FROM F2

SUBBASIN RUNOFF DATA

'A SUBBASIN CHARACTERISTICS

TAREA .33 SUBBASIN AREA

PRECIPITATION DATA

98 PB STORM 4.09 BASIN TOTAL PRECIPITATION

31 PI INCREMENTAL PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.01	.00	.01
.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00		

328 LU UNIFORM LOSS RATE

STRTL .65 INITIAL LOSS

CNSTL .09 UNIFORM LOSS RATE

RTIMP .00 PERCENT IMPERVIOUS AREA

329 UD SCS DIMENSIONLESS UNITGRAPH

TLAG .32 LAG

***

UNIT HYDROGRAPH

21 END-OF-PERIOD ORDINATES

56.	179.	355.	437.	422.	350.	241.	160.	111.	77.
53.	36.	24.	17.	12.	8.	6.	4.	3.	2.
1.									

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.76, TOTAL EXCESS = 2.33

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
569.	12.17	(CFS)	82.	21.	20.	20.
		(INCHES)	2.318	2.325	2.325	2.325
		(AC-FT)	41.	41.	41.	41.

CUMULATIVE AREA = .33 SQ MI

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

HYDROGRAPH AT STATION F2
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 2.78, TOTAL LOSS = 1.42, TOTAL EXCESS = 1.36

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
380.	12.17	(CFS)	48.	12.	12.	12.
		(INCHES)	1.358	1.358	1.358	1.358
		(AC-FT)	24.	24.	24.	24.

CUMULATIVE AREA = .33 SQ MI

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

HYDROGRAPH AT STATION F2
FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.68, TOTAL LOSS = 1.66, TOTAL EXCESS = 2.02

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
510.	12.17	(CFS)	72.	18.	17.	17.
		(INCHES)	2.016	2.016	2.016	2.016
		(AC-FT)	35.	35.	35.	35.

CUMULATIVE AREA = .33 SQ MI

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

HYDROGRAPH AT STATION F2
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.76, TOTAL EXCESS = 2.33

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
569.	12.17	(CFS)	82.	21.	20.	20.
		(INCHES)	2.318	2.325	2.325	2.325
		(AC-FT)	41.	41.	41.	41.

CUMULATIVE AREA = .33 SQ MI

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

HYDROGRAPH AT STATION F2

FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 4.87, TOTAL LOSS = 1.93, TOTAL EXCESS = 2.94

FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
681.	12.17	(CFS)	102.	26.	25.	25.
		(INCHES)	2.879	2.941	2.941	2.941
		(AC-FT)	51.	52.	52.	52.

CUMULATIVE AREA = .33 SQ MI

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          **************
          *            *
330 KK    *      31A   *
          *            *
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HYDROGRAPH COMBINATION, FLOW FROM 19 AND F2; ABOVE CONFLUENCE

332 HC HYDROGRAPH COMBINATION
ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

***

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

HYDROGRAPH AT STATION 31A
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
2893.	12.42	(CFS)	478.	119.	115.	115.
		(INCHES)	1.438	1.438	1.438	1.438
		(AC-FT)	237.	237.	237.	237.

CUMULATIVE AREA = 3.09 SQ MI

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

HYDROGRAPH AT STATION 31A
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
3884.	12.42	(CFS)	707.	179.	172.	172.
		(INCHES)	2.127	2.150	2.150	2.150
		(AC-FT)	350.	354.	354.	354.

CUMULATIVE AREA = 3.09 SQ MI

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

HYDROGRAPH AT STATION 31A
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
332.	12.42	(CFS)	808.	207.	199.	199.
		(INCHES)	2.432	2.487	2.487	2.487
		(AC-FT)	401.	410.	410.	410.

CUMULATIVE AREA = 3.09 SQ MI

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

HYDROGRAPH AT STATION 31A
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
5183.	12.42	(CFS)	996.	261.	252.	252.
		(INCHES)	2.996	3.143	3.143	3.143
		(AC-FT)	494.	518.	518.	518.

CUMULATIVE AREA = 3.09 SQ MI

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              **************
              *            *
333 KK        *        F1  *
              *            *
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RUNOFF FROM F1

SUBBASIN RUNOFF DATA

335 BA SUBBASIN CHARACTERISTICS
TAREA 1.65 SUBBASIN AREA

PRECIPITATION DATA

98 PB STORM 4.09 BASIN TOTAL PRECIPITATION

31 PI INCREMENTAL PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

.00	.00	.00	.00	.00	.00	.00	.01	.00	.01
.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00		

336 LU UNIFORM LOSS RATE

STRTL	.65	INITIAL LOSS
CNSTL	.08	UNIFORM LOSS RATE
RTIMP	.00	PERCENT IMPERVIOUS AREA

337 UD SCS DIMENSIONLESS UNITGRAPH

TLAG	.97	LAG

***

UNIT HYDROGRAPH
60 END-OF-PERIOD ORDINATES

19.	59.	112.	178.	259.	363.	485.	594.	682.	744.
781.	787.	782.	755.	713.	666.	614.	549.	474.	404.
346.	302.	263.	230.	204.	180.	157.	138.	118.	105.
92.	80.	70.	61.	53.	46.	41.	36.	31.	27.
24.	21.	18.	16.	14.	12.	11.	9.	8.	8.
7.	6.	5.	4.	4.	3.	2.	2.	1.	0.

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.66, TOTAL EXCESS = 2.43

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1404.	12.83	(CFS)	424.	108.	104.	104.
		(INCHES)	2.389	2.434	2.434	2.434
		(AC-FT)	210.	214.	214.	214.

CUMULATIVE AREA = 1.65 SQ MI

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

HYDROGRAPH AT STATION F1
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 2.78, TOTAL LOSS = 1.37, TOTAL EXCESS = 1.41

PI LOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
916.	12.83	(CFS)	250.	63.	60.	60.
		(INCHES)	1.408	1.409	1.409	1.409
		(AC-FT)	124.	124.	124.	124.

CUMULATIVE AREA = 1.65 SQ MI

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

HYDROGRAPH AT STATION F1
FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.68, TOTAL LOSS = 1.57, TOTAL EXCESS = 2.11

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1254.	12.83	(CFS)	371.	93.	90.	90.
		(INCHES)	2.089	2.107	2.107	2.107
		(AC-FT)	184.	185.	185.	185.

CUMULATIVE AREA = 1.65 SQ MI

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

HYDROGRAPH AT STATION F1
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.66, TOTAL EXCESS = 2.43

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
'04.	12.83	(CFS)	424.	108.	104.	104.
		(INCHES)	2.389	2.434	2.434	2.434
		(AC-FT)	210.	214.	214.	214.

CUMULATIVE AREA = 1.65 SQ MI

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

HYDROGRAPH AT STATION F1
FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 4.87, TOTAL LOSS = 1.79, TOTAL EXCESS = 3.08

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1687.	12.83	(CFS)	523.	137.	132.	132.
		(INCHES)	2.946	3.080	3.080	3.080
		(AC-FT)	259.	271.	271.	271.

CUMULATIVE AREA = 1.65 SQ MI

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          **************
          *            *
338 KK    *        31  *
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*            *
**************
                WILLOW SPRINGS WASH 0.8 MILES ABOVE CONFLUENCE WITH CAVE CK.
                HYDROGRAPH COMBINATION, FLOW FROM F1, F2 AND 19; BELOW CONFLUENCE

 HC          HYDROGRAPH COMBINATION
                ICOMP          2  NUMBER OF HYDROGRAPHS TO COMBINE

                                                          ***

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

                HYDROGRAPH AT STATION       31
                  FOR PLAN 1, RATIO =  .68

PEAK FLOW    TIME                          MAXIMUM AVERAGE FLOW
  (CFS)      (HR)                  6-HR      24-HR      72-HR     24.92-HR
  3610.      12.50       (CFS)     728.       182.       175.        175.
                       (INCHES)   1.427      1.428      1.428       1.428
                        (AC-FT)   361.       361.       361.        361.

                CUMULATIVE AREA =    4.74 SQ MI


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

                HYDROGRAPH AT STATION       31
                  FOR PLAN 1, RATIO =  .90

PE   FLOW    TIME                          MAXIMUM AVERAGE FLOW
     S)      (HR)                  6-HR      24-HR      72-HR     24.92-HR
  4884.      12.50       (CFS)    1077.       272.       262.        262.
                       (INCHES)   2.112      2.135      2.135       2.135
                        (AC-FT)   534.       540.       540.        540.

                CUMULATIVE AREA =    4.74 SQ MI


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

                HYDROGRAPH AT STATION       31
                  FOR PLAN 1, RATIO = 1.00

PEAK FLOW    TIME                          MAXIMUM AVERAGE FLOW
  (CFS)      (HR)                  6-HR      24-HR      72-HR     24.92-HR
  5454.      12.50       (CFS)    1230.       315.       303.        303.
                       (INCHES)   2.414      2.468      2.468       2.468
                        (AC-FT)   610.       624.       624.        624.

                CUMULATIVE AREA =    4.74 SQ MI


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

                HYDROGRAPH AT STATION       31
                  FOR PLAN 1, RATIO = 1.19

PEAK FLOW    TIME                          MAXIMUM AVERAGE FLOW
  (CFS)      (HR)                  6-HR      24-HR      72-HR     24.92-HR
  6535.      12.50       (CFS)    1515.       398.       383.        383.
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                    (INCHES)     2.972       3.121       3.121       3.121
                     (AC-FT)      751.        789.        789.        789.

                    CUMULATIVE AREA =    4.74 SQ MI


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


          **************
          *            *
342 KK    *       R31  *
          *            *
          **************
                         ROUTING 31 TO F

             HYDROGRAPH ROUTING DATA

344 RM          MUSKINGUM ROUTING
                      NSTPS         2 NUMBER OF SUBREACHES
                      AMSKK       .12 MUSKINGUM K
                          X       .20 MUSKINGUM X

                                                                  ***

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

                       HYDROGRAPH AT STATION      R31
                         FOR PLAN 1, RATIO =  .68

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   3540.     12.58        (CFS)     728.        182.        175.        175.
                       (INCHES)    1.427       1.428       1.428       1.428
                        (AC-FT)     361.        361.        361.        361.

                       CUMULATIVE AREA =    4.74 SQ MI


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

                       HYDROGRAPH AT STATION      R31
                         FOR PLAN 1, RATIO =  .90

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   4793.     12.58        (CFS)    1077.        272.        262.        262.
                       (INCHES)    2.112       2.135       2.135       2.135
                        (AC-FT)     534.        540.        540.        540.

                       CUMULATIVE AREA =    4.74 SQ MI


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

                       HYDROGRAPH AT STATION      R31
                         FOR PLAN 1, RATIO = 1.00
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PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
5353.	12.58	(CFS)	1230.	315.	303.	303.
		(INCHES)	2.413	2.468	2.468	2.468
		(AC-FT)	610.	624.	624.	624.

CUMULATIVE AREA = 4.74 SQ MI

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

HYDROGRAPH AT STATION R31
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
6416.	12.58	(CFS)	1515.	398.	383.	383.
		(INCHES)	2.972	3.121	3.121	3.121
		(AC-FT)	751.	789.	789.	789.

CUMULATIVE AREA = 4.74 SQ MI

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*            *
*        F3  *
*            *
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RUNOFF FROM F3

SUBBASIN RUNOFF DATA

347 BA SUBBASIN CHARACTERISTICS
TAREA .89 SUBBASIN AREA

PRECIPITATION DATA

98 PB STORM 4.09 BASIN TOTAL PRECIPITATION

31 PI INCREMENTAL PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.01	.00	.01
.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01

.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00		

348 LU UNIFORM LOSS RATE

STRTL	.65	INITIAL LOSS
CNSTL	.14	UNIFORM LOSS RATE
RTIMP	.00	PERCENT IMPERVIOUS AREA

349 UD SCS DIMENSIONLESS UNITGRAPH

TLAG	1.21	LAG

***

UNIT HYDROGRAPH
75 END-OF-PERIOD ORDINATES

7.	18.	34.	55.	79.	106.	143.	183.	226.	263.
294.	319.	333.	341.	343.	341.	334.	320.	304.	287.
268.	246.	221.	193.	170.	151.	135.	121.	108.	97.
88.	80.	71.	65.	58.	51.	46.	42.	37.	34.
30.	27.	24.	22.	19.	17.	16.	14.	13.	11.
10.	9.	8.	7.	7.	6.	5.	5.	4.	4.
4.	3.	3.	3.	2.	2.	2.	2.	1.	1.
1.	1.	0.	0.	0.					

TOTAL RAINFALL = 4.09, TOTAL LOSS = 2.01, TOTAL EXCESS = 2.08

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
608.	13.08	(CFS)	198.	50.	48.	48.
		(INCHES)	2.067	2.079	2.079	2.079
		(AC-FT)	98.	99.	99.	99.

CUMULATIVE AREA = .89 SQ MI

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

HYDROGRAPH AT STATION F3
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 2.78, TOTAL LOSS = 1.55, TOTAL EXCESS = 1.23

PEAK FLOW)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
387.	13.08	(CFS)	118.	29.	28.	28.
		(INCHES)	1.230	1.232	1.232	1.232
		(AC-FT)	58.	58.	58.	58.

CUMULATIVE AREA = .89 SQ MI

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

HYDROGRAPH AT STATION F3
FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.68, TOTAL LOSS = 1.87, TOTAL EXCESS = 1.81

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
540.	13.08	(CFS)	173.	43.	42.	42.
		(INCHES)	1.802	1.811	1.811	1.811
		(AC-FT)	86.	86.	86.	86.

CUMULATIVE AREA = .89 SQ MI

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

HYDROGRAPH AT STATION F3
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.09, TOTAL LOSS = 2.01, TOTAL EXCESS = 2.08

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
608.	13.08	(CFS)	198.	50.	48.	48.
		(INCHES)	2.067	2.079	2.079	2.079
		(AC-FT)	98.	99.	99.	99.

CUMULATIVE AREA = .89 SQ MI

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

HYDROGRAPH AT STATION F3
FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 4.87, TOTAL LOSS = 2.25, TOTAL EXCESS = 2.61

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
739.	13.08	(CFS)	247.	63.	60.	60.
		(INCHES)	2.585	2.613	2.613	2.613
		(AC-FT)	123.	124.	124.	124.

CUMULATIVE AREA = .89 SQ MI

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              **************
              *            *
350 KK        *        F4  *
              *            *
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                RUNOFF FROM F4

          SUBBASIN RUNOFF DATA

dA          SUBBASIN CHARACTERISTICS
                TAREA          .16  SUBBASIN AREA

            PRECIPITATION DATA

98 PB           STORM         4.09  BASIN TOTAL PRECIPITATION

31 PI         INCREMENTAL PRECIPITATION PATTERN
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .01     .00     .01
                .01     .01     .01     .01     .01     .01     .01     .01     .03     .03
                .03     .09     .09     .09     .01     .01     .01     .01     .01     .01
                .01     .01     .01     .01     .01     .01     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00     .00     .00
                .00     .00     .00     .00     .00     .00     .00     .00

353 LU        UNIFORM LOSS RATE
                STRTL          .65  INITIAL LOSS
                CNSTL          .15  UNIFORM LOSS RATE
                RTIMP          .00  PERCENT IMPERVIOUS AREA

354 UD        SCS DIMENSIONLESS UNITGRAPH
                TLAG           .35  LAG

                                        ***

                                   UNIT HYDROGRAPH
                              23 END-OF-PERIOD ORDINATES
          22.     69.    142.    190.    196.    173.    136.     91.     64.     46.
          33.     23.     16.     11.      8.      6.      4.      3.      2.      2.
           1.      1.      0.

  TOTAL RAINFALL =    4.09, TOTAL LOSS =    2.06, TOTAL EXCESS =    2.03
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PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
255.	12.25	(CFS)	35.	9.	8.	8.
		(INCHES)	2.034	2.034	2.034	2.034
		(AC-FT)	17.	17.	17.	17.

CUMULATIVE AREA = .16 SQ MI

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

HYDROGRAPH AT STATION F4
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 2.78, TOTAL LOSS = 1.57, TOTAL EXCESS = 1.21

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
169.	12.25	(CFS)	21.	5.	5.	5.
		(INCHES)	1.208	1.208	1.208	1.208
		(AC-FT)	10.	10.	10.	10.

CUMULATIVE AREA = .16 SQ MI

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

HYDROGRAPH AT STATION F4
FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.68, TOTAL LOSS = 1.91, TOTAL EXCESS = 1.77

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
228.	12.25	(CFS)	30.	8.	7.	7.
		(INCHES)	1.772	1.772	1.772	1.772
		(AC-FT)	15.	15.	15.	15.

CUMULATIVE AREA = .16 SQ MI

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

HYDROGRAPH AT STATION F4
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.09, TOTAL LOSS = 2.06, TOTAL EXCESS = 2.03

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
255.	12.25	(CFS)	35.	9.	8.	8.
		(INCHES)	2.034	2.034	2.034	2.034
		(AC-FT)	17.	17.	17.	17.

CUMULATIVE AREA = .16 SQ MI

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

HYDROGRAPH AT STATION F4
FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 4.87, TOTAL LOSS = 2.31, TOTAL EXCESS = 2.56

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
307.	12.25	(CFS)	44.	11.	11.	11.
		(INCHES)	2.557	2.558	2.558	2.558
		(AC-FT)	22.	22.	22.	22.

CUMULATIVE AREA = .16 SQ MI

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          **************
          *            *
355 KK    *          F *
          *            *
          **************
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WILLOW SPRINGS WASH ABOVE CONFLUENCE WITH CAVE CREEK

357 HC HYDROGRAPH COMBINATION
ICOMP 3 NUMBER OF HYDROGRAPHS TO COMBINE

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

HYDROGRAPH AT STATION F
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
3891.	12.58	(CFS)	866.	217.	209.	209.
		(INCHES)	1.391	1.392	1.392	1.392
		(AC-FT)	429.	430.	430.	430.

CUMULATIVE AREA = 5.79 SQ MI

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

HYDROGRAPH AT STATION F
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
5291.	12.58	(CFS)	1279.	323.	311.	311.
		(INCHES)	2.054	2.075	2.075	2.075
		(AC-FT)	634.	641.	641.	641.

CUMULATIVE AREA = 5.79 SQ MI

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

HYDROGRAPH AT STATION F
FOR PLAN 1, RATIO = 1.00

FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
5916.	12.58	(CFS)	1462.	373.	359.	359.
		(INCHES)	2.348	2.397	2.397	2.397
		(AC-FT)	725.	740.	740.	740.

CUMULATIVE AREA = 5.79 SQ MI

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

HYDROGRAPH AT STATION F
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
7104.	12.58	(CFS)	1805.	471.	454.	454.
		(INCHES)	2.898	3.027	3.027	3.027
		(AC-FT)	895.	935.	935.	935.

CUMULATIVE AREA = 5.79 SQ MI

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              **************
              *            *
358 KK        *        33  *
              *            *
              **************
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HYDROGRAPH COMBINATION, ALL BASINS ABOVE 33;
BELOW CONFLUENCE OF CAVE CREEK/WILLOW SPRINGS WASH

361 HC HYDROGRAPH COMBINATION
ICOMP 4 NUMBER OF HYDROGRAPHS TO COMBINE

***

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

HYDROGRAPH AT STATION 33
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
17014.	15.08	(CFS)	11633.	3012.	2901.	2901.
		(INCHES)	1.271	1.316	1.316	1.316
		(AC-FT)	5769.	5973.	5973.	5973.

CUMULATIVE AREA = 85.13 SQ MI

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

HYDROGRAPH AT STATION 33
FOR PLAN 1, RATIO = .90

FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
25119.	15.08	(CFS)	17187.	4510.	4344.	4344.
		(INCHES)	1.877	1.970	1.970	1.970
		(AC-FT)	8523.	8945.	8945.	8945.

CUMULATIVE AREA = 85.13 SQ MI

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

HYDROGRAPH AT STATION 33
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
28713.	15.08	(CFS)	19711.	5207.	5015.	5015.
		(INCHES)	2.153	2.275	2.275	2.275
		(AC-FT)	9774.	10327.	10327.	10327.

CUMULATIVE AREA = 85.13 SQ MI

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

HYDROGRAPH AT STATION 33
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
35439.	15.08	(CFS)	24551.	6576.	6334.	6334.
		(INCHES)	2.681	2.873	2.873	2.873
		(AC-FT)	12174.	13043.	13043.	13043.

CUMULATIVE AREA = 85.13 SQ MI

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              **************
              *            *
362 KK        *      E13   *
              *            *
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RUNOFF FROM E13

SUBBASIN RUNOFF DATA

3 SUBBASIN CHARACTERISTICS
TAREA .04 SUBBASIN AREA

PRECIPITATION DATA

98 PB STORM 4.09 BASIN TOTAL PRECIPITATION

31 PI INCREMENTAL PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.01	.00	.01
.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00		

365 LU UNIFORM LOSS RATE

STRTL .65 INITIAL LOSS
CNSTL .06 UNIFORM LOSS RATE
RTIMP .00 PERCENT IMPERVIOUS AREA

366 UD SCS DIMENSIONLESS UNITGRAPH

TLAG .05 LAG

***

UNIT HYDROGRAPH
5 END-OF-PERIOD ORDINATES

207. 79. 18. 4. 1.

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.48, TOTAL EXCESS = 2.61

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
114.	12.00	(CFS)	11.	3.	3.	3.
		(INCHES)	2.529	2.613	2.613	2.613
		(AC-FT)	5.	6.	6.	6.

CUMULATIVE AREA = .04 SQ MI

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

HYDROGRAPH AT STATION E13
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 2.78, TOTAL LOSS = 1.28, TOTAL EXCESS = 1.50

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
77.	12.00	(CFS)	6.	2.	2.	2.
		(INCHES)	1.502	1.502	1.502	1.502
		(AC-FT)	3.	3.	3.	3.

CUMULATIVE AREA = .04 SQ MI

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

HYDROGRAPH AT STATION E13
FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.68, TOTAL LOSS = 1.42, TOTAL EXCESS = 2.26

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
102.	12.00	(CFS)	10.	2.	2.	2.
		(INCHES)	2.220	2.257	2.257	2.257
		(AC-FT)	5.	5.	5.	5.

CUMULATIVE AREA = .04 SQ MI

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

HYDROGRAPH AT STATION E13
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.48, TOTAL EXCESS = 2.61

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
114.	12.00	(CFS)	11.	3.	3.	3.
		(INCHES)	2.529	2.613	2.613	2.613
		(AC-FT)	5.	6.	6.	6.

CUMULATIVE AREA = .04 SQ MI

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

HYDROGRAPH AT STATION E13
FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 4.87, TOTAL LOSS = 1.57, TOTAL EXCESS = 3.30

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
6.	12.00	(CFS)	13.	4.	3.	3.
		(INCHES)	3.091	3.300	3.300	3.300
		(AC-FT)	7.	7.	7.	7.

CUMULATIVE AREA = .04 SQ MI

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

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              *            *
367 KK        *     E14    *
              *            *
              **************
                             RUNOFF FROM E14

            SUBBASIN RUNOFF DATA

369 BA          SUBBASIN CHARACTERISTICS
                     TAREA          .86  SUBBASIN AREA

                PRECIPITATION DATA

 98 PB               STORM         4.09  BASIN TOTAL PRECIPITATION

 31 PI            INCREMENTAL PRECIPITATION PATTERN
                     .00      .00      .00      .00      .00      .00      .00      .00      .00      .00
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                     .01      .01      .01      .01      .01      .01      .01      .01      .03      .03
                     .03      .09      .09      .09      .01      .01      .01      .01      .01      .01
                     .01      .01      .01      .01      .01      .01      .00      .00      .00      .00
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                     .00      .00      .00      .00      .00      .00      .00      .00
370 LU          UNIFORM LOSS RATE
                     STRTL          .65  INITIAL LOSS
                     CNSTL          .06  UNIFORM LOSS RATE
                     RTIMP          .00  PERCENT IMPERVIOUS AREA

371 UD          SCS DIMENSIONLESS UNITGRAPH
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TLAG .35 LAG

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UNIT HYDROGRAPH
23 END-OF-PERIOD ORDINATES

119.	373.	767.	1021.	1056.	932.	734.	487.	343.	248.
175.	124.	87.	61.	43.	31.	22.	15.	11.	8.
6.	3.	1.							

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.48, TOTAL EXCESS = 2.61

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1423.	12.25	(CFS)	234.	60.	58.	58.
		(INCHES)	2.523	2.613	2.613	2.613
		(AC-FT)	116.	120.	120.	120.

CUMULATIVE AREA = .86 SQ MI

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

HYDROGRAPH AT STATION E14
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 2.78, TOTAL LOSS = 1.28, TOTAL EXCESS = 1.50

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
56.	12.25	(CFS)	139.	35.	33.	33.
		(INCHES)	1.501	1.502	1.502	1.502
		(AC-FT)	69.	69.	69.	69.

CUMULATIVE AREA = .86 SQ MI

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

HYDROGRAPH AT STATION E14
FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.68, TOTAL LOSS = 1.42, TOTAL EXCESS = 2.26

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1278.	12.25	(CFS)	205.	52.	50.	50.
		(INCHES)	2.215	2.257	2.257	2.257
		(AC-FT)	102.	104.	104.	104.

CUMULATIVE AREA = .86 SQ MI

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

HYDROGRAPH AT STATION E14
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.48, TOTAL EXCESS = 2.61

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1423.	12.25	(CFS)	234.	60.	58.	58.
		(INCHES)	2.523	2.613	2.613	2.613
		(AC-FT)	116.	120.	120.	120.

CUMULATIVE AREA = .86 SQ MI

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

HYDROGRAPH AT STATION E14
FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 4.87, TOTAL LOSS = 1.57, TOTAL EXCESS = 3.30

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1700.	12.25	(CFS)	286.	76.	74.	74.
		(INCHES)	3.088	3.300	3.300	3.300
		(AC-FT)	142.	152.	152.	152.

CUMULATIVE AREA = .86 SQ MI

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              *            *
372 KK        *       G2A  *
              *            *
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BEGIN OCOTILLO
RUNOFF FROM G2A

SUBBASIN RUNOFF DATA

375 BA SUBBASIN CHARACTERISTICS
TAREA .61 SUBBASIN AREA

PRECIPITATION DATA

98 PB STORM 4.09 BASIN TOTAL PRECIPITATION

31 PI INCREMENTAL PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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376 LU UNIFORM LOSS RATE

STRTL	.65	INITIAL LOSS
CNSTL	.14	UNIFORM LOSS RATE
RTIMP	.00	PERCENT IMPERVIOUS AREA

377 UD SCS DIMENSIONLESS UNITGRAPH

TLAG	.31	LAG

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UNIT HYDROGRAPH
21 END-OF-PERIOD ORDINATES

112.	359.	698.	834.	788.	636.	420.	279.	194.	131.
89.	61.	41.	28.	19.	13.	9.	7.	4.	2.
0.									

TOTAL RAINFALL = 4.09, TOTAL LOSS = 2.01, TOTAL EXCESS = 2.08

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1055.	12.17	(CFS)	136.	34.	33.	33.
		(INCHES)	2.079	2.079	2.079	2.079
		(AC-FT)	68.	68.	68.	68.

CUMULATIVE AREA = .61 SQ MI

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

HYDROGRAPH AT STATION G2A
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 2.78, TOTAL LOSS = 1.55, TOTAL EXCESS = 1.23

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
700.	12.17	(CFS)	81.	20.	19.	19.
		(INCHES)	1.232	1.232	1.232	1.232
		(AC-FT)	40.	40.	40.	40.

CUMULATIVE AREA = .61 SQ MI

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

                HYDROGRAPH AT STATION      G2A
                  FOR PLAN 1, RATIO =  .90

TOTAL RAINFALL =    3.68, TOTAL LOSS =    1.87, TOTAL EXCESS =    1.81

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   944.      12.17       (CFS)      119.         30.         29.         29.
                        (INCHES)   1.811      1.811       1.811       1.811
                        (AC-FT)     59.         59.         59.         59.

                       CUMULATIVE AREA =     .61 SQ MI


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

                HYDROGRAPH AT STATION      G2A
                  FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL =    4.09, TOTAL LOSS =    2.01, TOTAL EXCESS =    2.08

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
  1055.      12.17       (CFS)      136.         34.         33.         33.
                        (INCHES)   2.079      2.079       2.079       2.079
                        (AC-FT)     68.         68.         68.         68.

                       CUMULATIVE AREA =     .61 SQ MI


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

                HYDROGRAPH AT STATION      G2A
                  FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL =    4.87, TOTAL LOSS =    2.25, TOTAL EXCESS =    2.61

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
  1266.      12.17       (CFS)      171.         43.         41.         41.
                        (INCHES)   2.612      2.613       2.613       2.613
                        (AC-FT)     85.         85.         85.         85.

                       CUMULATIVE AREA =     .61 SQ MI


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


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          *            *
778 KK    *      G2B   *
          *            *
          **************
                RUNOFF FROM G2B
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SUBBASIN RUNOFF DATA

3?? BA SUBBASIN CHARACTERISTICS

TAREA .15 SUBBASIN AREA

PRECIPITATION DATA

98 PB STORM 4.09 BASIN TOTAL PRECIPITATION

31 PI INCREMENTAL PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
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381 LU UNIFORM LOSS RATE

STRTL .65 INITIAL LOSS

CNSTL .14 UNIFORM LOSS RATE

RTIMP .00 PERCENT IMPERVIOUS AREA

382 UD SCS DIMENSIONLESS UNITGRAPH

TLAG .47 LAG

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UNIT HYDROGRAPH

30 END-OF-PERIOD ORDINATES

10.	31.	64.	105.	133.	141.	137.	122.	101.	75.
56.	43.	34.	26.	20.	15.	12.	9.	7.	5.
4.	3.	2.	2.	1.	1.	1.	1.	0.	0.

TOTAL RAINFALL = 4.09, TOTAL LOSS = 2.01, TOTAL EXCESS = 2.08

PEAK FLOW TIME MAXIMUM AVERAGE FLOW

(CFS)	(HR)		6-HR	24-HR	72-HR	24.92-HR
203.	12.33	(CFS)	34.	8.	8.	8.
		(INCHES)	2.079	2.079	2.079	2.079
		(AC-FT)	17.	17.	17.	17.

CUMULATIVE AREA = .15 SQ MI

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HYDROGRAPH AT STATION G2B
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 2.78, TOTAL LOSS = 1.55, TOTAL EXCESS = 1.23

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
134.	12.33	(CFS)	20.	5.	5.	5.
		(INCHES)	1.232	1.232	1.232	1.232
		(AC-FT)	10.	10.	10.	10.

CUMULATIVE AREA = .15 SQ MI

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

HYDROGRAPH AT STATION G2B
FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.68, TOTAL LOSS = 1.87, TOTAL EXCESS = 1.81

K FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
182.	12.33	(CFS)	29.	7.	7.	7.
		(INCHES)	1.811	1.811	1.811	1.811
		(AC-FT)	14.	14.	14.	14.

CUMULATIVE AREA = .15 SQ MI

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

HYDROGRAPH AT STATION G2B
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.09, TOTAL LOSS = 2.01, TOTAL EXCESS = 2.08

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
203.	12.33	(CFS)	34.	8.	8.	8.
		(INCHES)	2.079	2.079	2.079	2.079
		(AC-FT)	17.	17.	17.	17.

CUMULATIVE AREA = .15 SQ MI

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

HYDROGRAPH AT STATION G2B
FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 4.87, TOTAL LOSS = 2.25, TOTAL EXCESS = 2.61

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
245.	12.33	(CFS)	42.	11.	10.	10.
		(INCHES)	2.611	2.613	2.613	2.613
		(AC-FT)	21.	21.	21.	21.

CUMULATIVE AREA = .15 SQ MI

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          *            *
383 KK    *        36  *
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HYDROGRAPH COMBINATION, FLOW FROM G2A AND G2B

385 HC HYDROGRAPH COMBINATION
ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

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HYDROGRAPH AT STATION 36
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
812.	12.17	(CFS)	101.	25.	24.	24.
		(INCHES)	1.232	1.232	1.232	1.232
		(AC-FT)	50.	50.	50.	50.

CUMULATIVE AREA = .76 SQ MI

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

HYDROGRAPH AT STATION 36
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1098.	12.17	(CFS)	148.	37.	36.	36.
		(INCHES)	1.811	1.811	1.811	1.811
		(AC-FT)	73.	73.	73.	73.

CUMULATIVE AREA = .76 SQ MI

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

HYDROGRAPH AT STATION 36

FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
27.	12.17	(CFS)	170.	42.	41.	41.
		(INCHES)	2.079	2.079	2.079	2.079
		(AC-FT)	84.	84.	84.	84.

CUMULATIVE AREA = .76 SQ MI

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

HYDROGRAPH AT STATION 36
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1474.	12.17	(CFS)	213.	53.	51.	51.
		(INCHES)	2.612	2.613	2.613	2.613
		(AC-FT)	106.	106.	106.	106.

CUMULATIVE AREA = .76 SQ MI

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              *            *
386 KK        *        G1  *
              *            *
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RUNOFF FROM G1

SUBBASIN RUNOFF DATA

388 BA SUBBASIN CHARACTERISTICS
TAREA .61 SUBBASIN AREA

PRECIPITATION DATA

98 PB STORM 4.09 BASIN TOTAL PRECIPITATION

31 PI INCREMENTAL PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.01	.00	.01

.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00		

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389 LU          UNIFORM LOSS RATE
                     STRTL        .65  INITIAL LOSS
                     CNSTL        .08  UNIFORM LOSS RATE
                     RTIMP        .00  PERCENT IMPERVIOUS AREA

390 UD          SCS DIMENSIONLESS UNITGRAPH
                      TLAG        .17  LAG

                                                  ***

                                              UNIT HYDROGRAPH
                                          12 END-OF-PERIOD ORDINATES
          423.     1282.     1317.      826.      414.      221.      117.       61.       33.       17.
           10.        4.

  TOTAL RAINFALL =    4.09, TOTAL LOSS =    1.66, TOTAL EXCESS =    2.43

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   1393.     12.08        (CFS)     158.         40.         38.         38.
                         (INCHES)  2.409       2.434       2.434       2.434
                         (AC-FT)    78.         79.         79.         79.

                         CUMULATIVE AREA =     .61 SQ MI


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

                        HYDROGRAPH AT STATION       G1
                          FOR PLAN 1, RATIO =  .68

  TOTAL RAINFALL =    2.78, TOTAL LOSS =    1.37, TOTAL EXCESS =    1.41

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
    937.     12.08        (CFS)      92.         23.         22.         22.
                         (INCHES)  1.409       1.409       1.409       1.409
                         (AC-FT)    46.         46.         46.         46.

                         CUMULATIVE AREA =     .61 SQ MI


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

HYDROGRAPH AT STATION G1
FOR PLAN 1, RATIO = .90

TAL RAINFALL = 3.68, TOTAL LOSS = 1.57, TOTAL EXCESS = 2.11

PEAK FLOW (CFS)	TIME (HR)		6-HR	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR
1251.	12.08	(CFS)	138.	35.	33.	33.
		(INCHES)	2.101	2.107	2.107	2.107
		(AC-FT)	68.	69.	69.	69.

CUMULATIVE AREA = .61 SQ MI

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

HYDROGRAPH AT STATION G1
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.66, TOTAL EXCESS = 2.43

PEAK FLOW (CFS)	TIME (HR)		6-HR	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR
1393.	12.08	(CFS)	158.	40.	38.	38.
		(INCHES)	2.409	2.434	2.434	2.434
		(AC-FT)	78.	79.	79.	79.

CUMULATIVE AREA = .61 SQ MI

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

HYDROGRAPH AT STATION G1
FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 4.87, TOTAL LOSS = 1.79, TOTAL EXCESS = 3.08

PEAK FLOW (CFS)	TIME (HR)		6-HR	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR
1664.	12.08	(CFS)	195.	51.	49.	49.
		(INCHES)	2.970	3.080	3.080	3.080
		(AC-FT)	97.	100.	100.	100.

CUMULATIVE AREA = .61 SQ MI

*** ***

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          **************
          *            *
391 KK    *       R34  *
          *            *
          **************
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ROUTING FROM 34 TO 35

HYDROGRAPH ROUTING DATA

393 RM MUSKINGUM ROUTING

NSTPS 4 NUMBER OF SUBREACHES
AMSKK .43 MUSKINGUM K
X .20 MUSKINGUM X

***

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

HYDROGRAPH AT STATION R34
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
691.	12.42	(CFS)	92.	23.	22.	22.
		(INCHES)	1.409	1.409	1.409	1.409
		(AC-FT)	46.	46.	46.	46.

CUMULATIVE AREA = .61 SQ MI

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

HYDROGRAPH AT STATION R34
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
925.	12.42	(CFS)	138.	35.	33.	33.
		(INCHES)	2.099	2.107	2.107	2.107
		(AC-FT)	68.	69.	69.	69.

CUMULATIVE AREA = .61 SQ MI

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

HYDROGRAPH AT STATION R34
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1031.	12.42	(CFS)	158.	40.	38.	38.
		(INCHES)	2.406	2.434	2.434	2.434
		(AC-FT)	78.	79.	79.	79.

CUMULATIVE AREA = .61 SQ MI

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

HYDROGRAPH AT STATION R34
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1233.	12.42	(CFS)	195.	51.	49.	49.
		(INCHES)	2.969	3.080	3.080	3.080
		(AC-FT)	97.	100.	100.	100.

CUMULATIVE AREA = .61 SQ MI

*** ***

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          ***************
          *             *
394 KK    *         G2  *
          *             *
          ***************
                RUNOFF FROM G2
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SUBBASIN RUNOFF DATA

396 BA SUBBASIN CHARACTERISTICS

TAREA 1.17 SUBBASIN AREA

PRECIPITATION DATA

98 PB STORM 4.09 BASIN TOTAL PRECIPITATION

31 PI INCREMENTAL PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00		

[illegible]7 LU UNIFORM LOSS RATE

STRTL .65 INITIAL LOSS

CNSTL .14 UNIFORM LOSS RATE

RTIMP .00 PERCENT IMPERVIOUS AREA

398 UD SCS DIMENSIONLESS UNITGRAPH
TLAG .43 LAG

***

UNIT HYDROGRAPH
28 END-OF-PERIOD ORDINATES

100.	304.	631.	991.	1174.	1191.	1083.	918.	685.	495.
369.	283.	213.	158.	119.	89.	66.	50.	38.	28.
21.	16.	12.	10.	7.	5.	3.	1.		

TOTAL RAINFALL = 4.09, TOTAL LOSS = 2.01, TOTAL EXCESS = 2.08

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1662.	12.25	(CFS)	262.	65.	63.	63.
		(INCHES)	2.079	2.079	2.079	2.079
		(AC-FT)	130.	130.	130.	130.

CUMULATIVE AREA = 1.17 SQ MI

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

HYDROGRAPH AT STATION G2
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 2.78, TOTAL LOSS = 1.55, TOTAL EXCESS = 1.23

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1096.	12.25	(CFS)	155.	39.	37.	37.
		(INCHES)	1.232	1.232	1.232	1.232
		(AC-FT)	77.	77.	77.	77.

CUMULATIVE AREA = 1.17 SQ MI

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

HYDROGRAPH AT STATION G2
FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.68, TOTAL LOSS = 1.87, TOTAL EXCESS = 1.81

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1486.	12.25	(CFS)	228.	57.	55.	55.
		(INCHES)	1.811	1.811	1.811	1.811
		(AC-FT)	113.	113.	113.	113.

CUMULATIVE AREA = 1.17 SQ MI

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

HYDROGRAPH AT STATION G2
FOR PLAN 1, RATIO = 1.00

```
TOTAL RAINFALL =    4.09, TOTAL LOSS =    2.01, TOTAL EXCESS =    2.08

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR      24-HR      72-HR     24.92-HR
   262.      12.25        (CFS)     262.        65.        63.         63.
                        (INCHES)   2.079     2.079      2.079       2.079
                         (AC-FT)    130.       130.       130.        130.

                       CUMULATIVE AREA =    1.17 SQ MI


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

                       HYDROGRAPH AT STATION       G2
                         FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL =    4.87, TOTAL LOSS =    2.25, TOTAL EXCESS =    2.61

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR      24-HR      72-HR     24.92-HR
  1998.      12.25        (CFS)     329.        82.        79.         79.
                        (INCHES)   2.611     2.613      2.613       2.613
                         (AC-FT)    163.       163.       163.        163.

                       CUMULATIVE AREA =    1.17 SQ MI


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


          **************
          *            *
399 KK    *       35A  *
          *            *
          **************
                         HYDROGRAPH COMBINATION, FLOW FROM G1 AND G2; ABOVE CONFLUENCE

401 HC          HYDROGRAPH COMBINATION
                     ICOMP           2  NUMBER OF HYDROGRAPHS TO COMBINE

                                                          ***

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

                       HYDROGRAPH AT STATION      35A
                         FOR PLAN 1, RATIO =  .68

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR      24-HR      72-HR     24.92-HR
  1706.      12.33        (CFS)     247.        62.        60.         60.
                        (INCHES)   1.292     1.292      1.292       1.292
                         (AC-FT)    123.       123.       123.        123.

                       CUMULATIVE AREA =    1.78 SQ MI


   ***            ***            ***            ***            ***
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HYDROGRAPH AT STATION 35A
FOR PLAN 1, RATIO = .90

P[illegible] FLOW (S)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
2304.	12.33	(CFS)	366.	92.	88.	88.
		(INCHES)	1.909	1.912	1.912	1.912
		(AC-FT)	181.	182.	182.	182.

CUMULATIVE AREA = 1.78 SQ MI

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

HYDROGRAPH AT STATION 35A
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
2575.	12.33	(CFS)	419.	105.	101.	101.
		(INCHES)	2.191	2.201	2.201	2.201
		(AC-FT)	208.	209.	209.	209.

CUMULATIVE AREA = 1.78 SQ MI

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

HYDROGRAPH AT STATION 35A
FOR PLAN 1, RATIO = 1.19

[illegible]K FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
3091.	12.33	(CFS)	523.	133.	128.	128.
		(INCHES)	2.734	2.773	2.773	2.773
		(AC-FT)	260.	263.	263.	263.

CUMULATIVE AREA = 1.78 SQ MI

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              **************
              *            *
402 KK        *        35  *
              *            *
              **************
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HYDROGRAPH COMBINATION, FLOW FROM G1, G2 AND 36; BELOW CONFLUENCE

404 HC HYDROGRAPH COMBINATION
ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

***

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

HYDROGRAPH AT STATION 35

FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
[illegible]401.	12.33	(CFS)	348.	87.	84.	84.
		(INCHES)	1.274	1.274	1.274	1.274
		(AC-FT)	173.	173.	173.	173.

CUMULATIVE AREA = 2.54 SQ MI

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

HYDROGRAPH AT STATION 35
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
3246.	12.33	(CFS)	514.	129.	124.	124.
		(INCHES)	1.880	1.882	1.882	1.882
		(AC-FT)	255.	255.	255.	255.

CUMULATIVE AREA = 2.54 SQ MI

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

HYDROGRAPH AT STATION 35
FOR PLAN 1, RATIO = 1.00

[illegible] FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
3630.	12.33	(CFS)	589.	148.	142.	142.
		(INCHES)	2.158	2.165	2.165	2.165
		(AC-FT)	292.	293.	293.	293.

CUMULATIVE AREA = 2.54 SQ MI

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

HYDROGRAPH AT STATION 35
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
4358.	12.33	(CFS)	737.	186.	179.	179.
		(INCHES)	2.697	2.725	2.725	2.725
		(AC-FT)	365.	369.	369.	369.

CUMULATIVE AREA = 2.54 SQ MI

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* *

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405 KK     *       R35  *
           *            *
           **************
                    ROUTING 35 TO G

          HYDROGRAPH ROUTING DATA

407 RM          MUSKINGUM ROUTING
                     NSTPS        4 NUMBER OF SUBREACHES
                     AMSKK      .37 MUSKINGUM K
                         X      .20 MUSKINGUM X

                                                          ***

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

                     HYDROGRAPH AT STATION      R35
                       FOR PLAN 1, RATIO =  .68

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   2180.     12.67        (CFS)     348.         87.         84.         84.
                        (INCHES)   1.274       1.274       1.274       1.274
                         (AC-FT)    173.        173.        173.        173.

                       CUMULATIVE AREA =    2.54 SQ MI

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

                     HYDROGRAPH AT STATION      R35
                       FOR PLAN 1, RATIO =  .90

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   2954.     12.67        (CFS)     513.        129.        124.        124.
                        (INCHES)   1.880       1.882       1.882       1.882
                         (AC-FT)    255.        255.        255.        255.

                       CUMULATIVE AREA =    2.54 SQ MI

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

                     HYDROGRAPH AT STATION      R35
                       FOR PLAN 1, RATIO = 1.00

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   3306.     12.67        (CFS)     589.        148.        142.        142.
                        (INCHES)   2.157       2.165       2.165       2.165
                         (AC-FT)    292.        293.        293.        293.

                       CUMULATIVE AREA =    2.54 SQ MI

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

                     HYDROGRAPH AT STATION      R35
                       FOR PLAN 1, RATIO = 1.19
```

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
3973.	12.67	(CFS)	737.	186.	179.	179.
		(INCHES)	2.696	2.725	2.725	2.725
		(AC-FT)	365.	369.	369.	369.

CUMULATIVE AREA = 2.54 SQ MI

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              **************
              *            *
408 KK        *        G3  *
              *            *
              **************
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RUNOFF FROM G3

SUBBASIN RUNOFF DATA

410 BA SUBBASIN CHARACTERISTICS

TAREA .85 SUBBASIN AREA

PRECIPITATION DATA

`B STORM 4.09 BASIN TOTAL PRECIPITATION

PI INCREMENTAL PRECIPITATION PATTERN

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.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

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                .00       .00       .00       .00       .00       .00       .00       .00

411 LU        UNIFORM LOSS RATE
                    STRTL        .65  INITIAL LOSS
                    CNSTL        .23  UNIFORM LOSS RATE
                    RTIMP        .00  PERCENT IMPERVIOUS AREA

412 UD        SCS DIMENSIONLESS UNITGRAPH
                    TLAG         .50  LAG

                                                  ***

                                                UNIT HYDROGRAPH
                                            32 END-OF-PERIOD ORDINATES
          51.     151.     310.     519.     679.     752.     752.     689.     601.     481.
         355.     275.     212.     170.     132.     102.      79.      62.      48.      37.
          29.      23.      18.      14.      11.       8.       7.       6.       4.       3.
           2.       1.

  TOTAL RAINFALL =    4.09, TOTAL LOSS =    2.32, TOTAL EXCESS =    1.77

PEAK FLOW    TIME                          MAXIMUM AVERAGE FLOW
  (CFS)      (HR)                  6-HR       24-HR       72-HR     24.92-HR
  1057.     12.33       (CFS)      162.         41.         39.         39.
                      (INCHES)    1.772       1.772       1.772       1.772
                       (AC-FT)     80.         80.         80.         80.

                     CUMULATIVE AREA =     .85 SQ MI


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

                     HYDROGRAPH AT STATION       G3
                       FOR PLAN 1, RATIO =  .68

  TOTAL RAINFALL =    2.78, TOTAL LOSS =    1.73, TOTAL EXCESS =    1.05

PEAK FLOW    TIME                          MAXIMUM AVERAGE FLOW
  (CFS)      (HR)                  6-HR       24-HR       72-HR     24.92-HR
   680.     12.33       (CFS)       96.         24.         23.         23.
                      (INCHES)    1.049       1.049       1.049       1.049
                       (AC-FT)     48.         48.         48.         48.

                     CUMULATIVE AREA =     .85 SQ MI


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

                     HYDROGRAPH AT STATION       G3
                       FOR PLAN 1, RATIO =  .90

  TOTAL RAINFALL =    3.68, TOTAL LOSS =    2.14, TOTAL EXCESS =    1.54

PEAK FLOW    TIME                          MAXIMUM AVERAGE FLOW
  (CFS)      (HR)                  6-HR       24-HR       72-HR     24.92-HR
    39.     12.33       (CFS)      140.         35.         34.         34.
                      (INCHES)    1.536       1.536       1.536       1.536
                       (AC-FT)     70.         70.         70.         70.

                     CUMULATIVE AREA =     .85 SQ MI
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                HYDROGRAPH AT STATION      G3
                  FOR PLAN 1, RATIO = 1.00

  TOTAL RAINFALL =   4.09, TOTAL LOSS =   2.32, TOTAL EXCESS =   1.77

PEAK FLOW    TIME                        MAXIMUM AVERAGE FLOW
  (CFS)      (HR)                 6-HR      24-HR      72-HR    24.92-HR
  1057.     12.33      (CFS)     162.        41.        39.        39.
                     (INCHES)   1.772      1.772      1.772      1.772
                     (AC-FT)     80.        80.        80.        80.

                   CUMULATIVE AREA =    .85 SQ MI


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

                HYDROGRAPH AT STATION      G3
                  FOR PLAN 1, RATIO = 1.19

  TOTAL RAINFALL =   4.87, TOTAL LOSS =   2.63, TOTAL EXCESS =   2.24

PEAK FLOW    TIME                        MAXIMUM AVERAGE FLOW
  (CFS)      (HR)                 6-HR      24-HR      72-HR    24.92-HR
  1281.     12.33      (CFS)     204.        51.        49.        49.
                     (INCHES)   2.236      2.236      2.236      2.236
                     (AC-FT)    101.       101.       101.       101.

                   CUMULATIVE AREA =    .85 SQ MI


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          *            *
413 KK    *          G *
          *            *
          **************
                HYDROGRAPH COMBINATION, FLOW FROM G3 AND 35;
                ABOVE CONFLUENCE WITH CAVE CREEK

416 HC        HYDROGRAPH COMBINATION
                   ICOMP          2  NUMBER OF HYDROGRAPHS TO COMBINE

                                                          ***

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

                HYDROGRAPH AT STATION      G
                  FOR PLAN 1, RATIO =  .68

PEAK FLOW    TIME                        MAXIMUM AVERAGE FLOW
  (CFS)      (HR)                 6-HR      24-HR      72-HR    24.92-HR
  2630.     12.67      (CFS)     444.       111.       107.       107.
```

(INCHES)	1.218	1.218	1.218	1.218
(AC-FT)	220.	220.	220.	220.

CUMULATIVE AREA = 3.39 SQ MI

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

HYDROGRAPH AT STATION G
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
3591.	12.67	(CFS)	654.	164.	158.	158.
		(INCHES)	1.794	1.795	1.795	1.795
		(AC-FT)	324.	325.	325.	325.

CUMULATIVE AREA = 3.39 SQ MI

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

HYDROGRAPH AT STATION G
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
4027.	12.67	(CFS)	751.	188.	181.	181.
		(INCHES)	2.061	2.066	2.066	2.066
		(AC-FT)	373.	374.	374.	374.

CUMULATIVE AREA = 3.39 SQ MI

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

HYDROGRAPH AT STATION G
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
4855.	12.67	(CFS)	941.	237.	228.	228.
		(INCHES)	2.581	2.602	2.602	2.602
		(AC-FT)	467.	470.	470.	470.

CUMULATIVE AREA = 3.39 SQ MI

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K     *      39 *
*            *
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HYDROGRAPH COMBINATION, ALL BASINS ABOVE 39;
BELOW CONFLUENCE OF CAVE CREEK/OCOTILLO WASH

420 HC HYDROGRAPH COMBINATION

ICOMP 4 NUMBER OF HYDROGRAPHS TO COMBINE

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

HYDROGRAPH AT STATION 39
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
18190.	12.67	(CFS)	12200.	3159.	3043.	3043.
		(INCHES)	1.269	1.314	1.314	1.314
		(AC-FT)	6050.	6266.	6266.	6266.

CUMULATIVE AREA = 89.42 SQ MI

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

HYDROGRAPH AT STATION 39
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
25803.	12.67	(CFS)	18004.	4728.	4554.	4554.
		(INCHES)	1.872	1.967	1.967	1.967
		(AC-FT)	8927.	9378.	9378.	9378.

CUMULATIVE AREA = 89.42 SQ MI

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

HYDROGRAPH AT STATION 39
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
29144.	12.67	(CFS)	20641.	5458.	5258.	5258.
		(INCHES)	2.146	2.270	2.270	2.270
		(AC-FT)	10235.	10827.	10827.	10827.

CUMULATIVE AREA = 89.42 SQ MI

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

HYDROGRAPH AT STATION 39
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
23.	12.67	(CFS)	25697.	6893.	6639.	6639.
		(INCHES)	2.672	2.867	2.867	2.867
		(AC-FT)	12742.	13672.	13672.	13672.

CUMULATIVE AREA = 89.42 SQ MI

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

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421 KK        *        11  *
              *            *
              **************
                             BEGIN NORTH GALLOWAY WASH
                             RUNOFF FROM I1

                 SUBBASIN RUNOFF DATA

424 BA              SUBBASIN CHARACTERISTICS
                          TAREA        4.98  SUBBASIN AREA

                    PRECIPITATION DATA

 98 PB                    STORM        4.09  BASIN TOTAL PRECIPITATION

 31 PI                INCREMENTAL PRECIPITATION PATTERN
                          .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                          .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                          .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
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                          .00       .00       .00       .00       .00       .00       .00       .01       .00       .01
                          .01       .01       .01       .01       .01       .01       .01       .01       .03       .03
                          .03       .09       .09       .09       .01       .01       .01       .01       .01       .01
                          .01       .01       .01       .01       .01       .01       .00       .00       .00       .00
                          .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                          .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                          .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                          .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                          .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                          .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                          .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                          .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                          .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                          .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                          .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                          .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                          .00       .00       .00       .00       .00       .00       .00       .00

 4   J              UNIFORM LOSS RATE
                          STRTL         .65  INITIAL LOSS
                          CNSTL         .07  UNIFORM LOSS RATE
                          RTIMP         .00  PERCENT IMPERVIOUS AREA
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426 UD SCS DIMENSIONLESS UNITGRAPH

TLAG .57 LAG

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UNIT HYDROGRAPH
36 END-OF-PERIOD ORDINATES

218.	650.	1274.	2184.	3106.	3698.	3914.	3897.	3585.	3185.
2679.	2065.	1613.	1283.	1038.	843.	677.	537.	430.	347.
276.	217.	177.	142.	113.	92.	73.	58.	47.	39.
33.	26.	20.	14.	9.	4.				

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.57, TOTAL EXCESS = 2.52

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
6177.	12.42	(CFS)	1317.	337.	325.	325.
		(INCHES)	2.459	2.518	2.518	2.518
		(AC-FT)	653.	669.	669.	669.

CUMULATIVE AREA = 4.98 SQ MI

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

HYDROGRAPH AT STATION I1
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 2.78, TOTAL LOSS = 1.33, TOTAL EXCESS = 1.45

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
4108.	12.42	(CFS)	777.	194.	187.	187.
		(INCHES)	1.450	1.450	1.450	1.450
		(AC-FT)	385.	385.	385.	385.

CUMULATIVE AREA = 4.98 SQ MI

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

HYDROGRAPH AT STATION I1
FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.68, TOTAL LOSS = 1.50, TOTAL EXCESS = 2.18

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
5537.	12.42	(CFS)	1153.	292.	281.	281.
		(INCHES)	2.153	2.178	2.178	2.178
		(AC-FT)	572.	578.	578.	578.

CUMULATIVE AREA = 4.98 SQ MI

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

HYDROGRAPH AT STATION I1
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.57, TOTAL EXCESS = 2.52

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
77.	12.42	(CFS)	1317.	337.	325.	325.
		(INCHES)	2.459	2.518	2.518	2.518
		(AC-FT)	653.	669.	669.	669.

CUMULATIVE AREA = 4.98 SQ MI

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

HYDROGRAPH AT STATION I1
FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 4.87, TOTAL LOSS = 1.68, TOTAL EXCESS = 3.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
7394.	12.42	(CFS)	1619.	427.	411.	411.
		(INCHES)	3.023	3.188	3.188	3.188
		(AC-FT)	803.	847.	847.	847.

CUMULATIVE AREA = 4.98 SQ MI

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          *            *
427 KK    *        I2  *
          *            *
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RUNOFF FROM I2

SUBBASIN RUNOFF DATA

429 BA SUBBASIN CHARACTERISTICS
TAREA .62 SUBBASIN AREA

PRECIPITATION DATA

98 PB STORM 4.09 BASIN TOTAL PRECIPITATION

31 PI INCREMENTAL PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.01	.00	.01
.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00		

430 LU UNIFORM LOSS RATE

STRTL	.65	INITIAL LOSS
CNSTL	.08	UNIFORM LOSS RATE
RTIMP	.00	PERCENT IMPERVIOUS AREA

431 UD SCS DIMENSIONLESS UNITGRAPH

TLAG	.47	LAG

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UNIT HYDROGRAPH
30 END-OF-PERIOD ORDINATES

43.	129.	265.	435.	550.	584.	566.	502.	418.	311.
232.	177.	139.	107.	81.	62.	48.	37.	28.	22.
17.	13.	10.	8.	6.	5.	4.	3.	2.	1.

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.66, TOTAL EXCESS = 2.43

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
864.	12.33	(CFS)	160.	41.	39.	39.
		(INCHES)	2.403	2.434	2.434	2.434
		(AC-FT)	79.	80.	80.	80.

CUMULATIVE AREA = .62 SQ MI

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HYDROGRAPH AT STATION I2
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 2.78, TOTAL LOSS = 1.37, TOTAL EXCESS = 1.41

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
6.	12.33	(CFS)	94.	23.	23.	23.
		(INCHES)	1.409	1.409	1.409	1.409
		(AC-FT)	47.	47.	47.	47.

CUMULATIVE AREA = .62 SQ MI

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HYDROGRAPH AT STATION I2
FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.68, TOTAL LOSS = 1.57, TOTAL EXCESS = 2.11

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
775.	12.33	(CFS)	140.	35.	34.	34.
		(INCHES)	2.098	2.107	2.107	2.107
		(AC-FT)	69.	70.	70.	70.

CUMULATIVE AREA = .62 SQ MI

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

HYDROGRAPH AT STATION I2
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.66, TOTAL EXCESS = 2.43

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
864.	12.33	(CFS)	160.	41.	39.	39.
		(INCHES)	2.403	2.434	2.434	2.434
		(AC-FT)	79.	80.	80.	80.

CUMULATIVE AREA = .62 SQ MI

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

HYDROGRAPH AT STATION I2
FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 4.87, TOTAL LOSS = 1.79, TOTAL EXCESS = 3.08

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1035.	12.33	(CFS)	198.	51.	49.	49.
		(INCHES)	2.966	3.080	3.080	3.080
		(AC-FT)	98.	102.	102.	102.

CUMULATIVE AREA = .62 SQ MI

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KK  *      59 *
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HYDROGRAPH COMBINATION, FLOW FROM I1 AND I2

434 HC HYDROGRAPH COMBINATION

ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

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

HYDROGRAPH AT STATION 59
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
4662.	12.42	(CFS)	871.	218.	210.	210.
		(INCHES)	1.446	1.446	1.446	1.446
		(AC-FT)	432.	432.	432.	432.

CUMULATIVE AREA = 5.60 SQ MI

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

HYDROGRAPH AT STATION 59
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
6282.	12.42	(CFS)	1293.	327.	315.	315.
		(INCHES)	2.147	2.170	2.170	2.170
		(AC-FT)	641.	648.	648.	648.

CUMULATIVE AREA = 5.60 SQ MI

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

HYDROGRAPH AT STATION 59
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
7009.	12.42	(CFS)	1477.	378.	364.	364.
		(INCHES)	2.453	2.509	2.509	2.509
		(AC-FT)	733.	749.	749.	749.

CUMULATIVE AREA = 5.60 SQ MI

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

HYDROGRAPH AT STATION 59
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
8389.	12.42	(CFS)	1817.	478.	461.	461.
		(INCHES)	3.016	3.176	3.176	3.176
		(AC-FT)	901.	948.	948.	948.

CUMULATIVE AREA = 5.60 SQ MI

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435 KK    *       R59  *
          *            *
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ROUTING 59 TO 63

HYDROGRAPH ROUTING DATA

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437 RM        MUSKINGUM ROUTING
                   NSTPS        5 NUMBER OF SUBREACHES
                   AMSKK      .54 MUSKINGUM K
                       X      .20 MUSKINGUM X
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HYDROGRAPH AT STATION R59
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
4120.	13.00	(CFS)	871.	218.	210.	210.
		(INCHES)	1.446	1.446	1.446	1.446
		(AC-FT)	432.	432.	432.	432.

CUMULATIVE AREA = 5.60 SQ MI

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HYDROGRAPH AT STATION R59
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
5565.	13.00	(CFS)	1292.	327.	315.	315.
		(INCHES)	2.146	2.170	2.170	2.170
		(AC-FT)	641.	648.	648.	648.

CUMULATIVE AREA = 5.60 SQ MI

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

HYDROGRAPH AT STATION R59
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
6212.	13.00	(CFS)	1476.	378.	364.	364.

(INCHES)	2.451	2.509	2.509	2.509
(AC-FT)	732.	749.	749.	749.

CUMULATIVE AREA = 5.60 SQ MI

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

HYDROGRAPH AT STATION R59
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
7441.	13.00	(CFS)	1816.	478.	461.	461.
		(INCHES)	3.015	3.176	3.176	3.176
		(AC-FT)	900.	948.	948.	948.

CUMULATIVE AREA = 5.60 SQ MI

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          *            *
438 KK    *        I3  *
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RUNOFF FROM I3

SUBBASIN RUNOFF DATA

440 BA SUBBASIN CHARACTERISTICS
TAREA 1.07 SUBBASIN AREA

PRECIPITATION DATA

98 PB STORM 4.09 BASIN TOTAL PRECIPITATION

31 PI INCREMENTAL PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
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.00	.00	.00	.00	.00	.00	.00	.00		

441 LU UNIFORM LOSS RATE

STRTL	.65	INITIAL LOSS
CNSTL	.15	UNIFORM LOSS RATE
RTIMP	.00	PERCENT IMPERVIOUS AREA

442 UD SCS DIMENSIONLESS UNITGRAPH

TLAG	.43	LAG

***

UNIT HYDROGRAPH
28 END-OF-PERIOD ORDINATES

92.	278.	577.	906.	1074.	1089.	991.	840.	626.	453.
338.	259.	195.	145.	109.	81.	60.	45.	34.	26.
19.	15.	11.	9.	7.	4.	3.	1.		

TOTAL RAINFALL = 4.09, TOTAL LOSS = 2.06, TOTAL EXCESS = 2.03

FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1513.	12.25	(CFS)	234.	59.	56.	56.
		(INCHES)	2.034	2.034	2.034	2.034
		(AC-FT)	116.	116.	116.	116.

CUMULATIVE AREA = 1.07 SQ MI

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

HYDROGRAPH AT STATION I3
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 2.78, TOTAL LOSS = 1.57, TOTAL EXCESS = 1.21

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
995.	12.25	(CFS)	139.	35.	33.	33.
		(INCHES)	1.208	1.208	1.208	1.208
		(AC-FT)	69.	69.	69.	69.

CUMULATIVE AREA = 1.07 SQ MI

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

HYDROGRAPH AT STATION I3
FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.68, TOTAL LOSS = 1.91, TOTAL EXCESS = 1.77

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
352.	12.25	(CFS)	204.	51.	49.	49.
		(INCHES)	1.772	1.772	1.772	1.772
		(AC-FT)	101.	101.	101.	101.

CUMULATIVE AREA = 1.07 SQ MI

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

HYDROGRAPH AT STATION I3
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.09, TOTAL LOSS = 2.06, TOTAL EXCESS = 2.03

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1513.	12.25	(CFS)	234.	59.	56.	56.
		(INCHES)	2.034	2.034	2.034	2.034
		(AC-FT)	116.	116.	116.	116.

CUMULATIVE AREA = 1.07 SQ MI

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

HYDROGRAPH AT STATION I3
FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 4.87, TOTAL LOSS = 2.31, TOTAL EXCESS = 2.56

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1821.	12.25	(CFS)	294.	74.	71.	71.
		(INCHES)	2.557	2.558	2.558	2.558
		(AC-FT)	146.	146.	146.	146.

CUMULATIVE AREA = 1.07 SQ MI

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          **************
          *            *
443 KK    *        63  *
          *            *
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NORTH GALLOWAY WASH ABOVE CONFLUENCE WITH ROWE WASH

4/ : HYDROGRAPH COMBINATION
ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

***

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

HYDROGRAPH AT STATION 63
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
4371.	12.92	(CFS)	1010.	252.	243.	243.
		(INCHES)	1.407	1.408	1.408	1.408
		(AC-FT)	501.	501.	501.	501.

CUMULATIVE AREA = 6.67 SQ MI

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

HYDROGRAPH AT STATION 63
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
5937.	12.92	(CFS)	1496.	378.	364.	364.
		(INCHES)	2.085	2.106	2.106	2.106
		(AC-FT)	742.	749.	749.	749.

CUMULATIVE AREA = 6.67 SQ MI

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

HYDROGRAPH AT STATION 63
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
6637.	12.92	(CFS)	1710.	436.	420.	420.
		(INCHES)	2.384	2.433	2.433	2.433
		(AC-FT)	848.	865.	865.	865.

CUMULATIVE AREA = 6.67 SQ MI

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

HYDROGRAPH AT STATION 63
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
7967.	12.92	(CFS)	2109.	552.	531.	531.
		(INCHES)	2.940	3.077	3.077	3.077
		(AC-FT)	1046.	1094.	1094.	1094.

CUMULATIVE AREA = 6.67 SQ MI

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              *            *
446 KK        *      H1E   *
              *            *
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                      BEGIN ROWE WASH
                      RUNOFF FROM H1E

          SUBBASIN RUNOFF DATA

449 BA          SUBBASIN CHARACTERISTICS
                     TAREA          .13  SUBBASIN AREA

                PRECIPITATION DATA

 98 PB               STORM         4.09  BASIN TOTAL PRECIPITATION

 31 PI            INCREMENTAL PRECIPITATION PATTERN
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450 LU          UNIFORM LOSS RATE
                     STRTL          .65  INITIAL LOSS
                     CNSTL          .06  UNIFORM LOSS RATE
                     RTIMP          .00  PERCENT IMPERVIOUS AREA

451 UD          SCS DIMENSIONLESS UNITGRAPH
                      TLAG          .13  LAG

                                                  ***

                                          UNIT HYDROGRAPH
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10 END-OF-PERIOD ORDINATES

165.	367.	267.	114.	52.	24.	11.	5.	2.	1.

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.48, TOTAL EXCESS = 2.61

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
323.	12.00	(CFS)	35.	9.	9.	9.
		(INCHES)	2.528	2.613	2.613	2.613
		(AC-FT)	18.	18.	18.	18.

CUMULATIVE AREA = .13 SQ MI

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

HYDROGRAPH AT STATION H1E
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 2.78, TOTAL LOSS = 1.28, TOTAL EXCESS = 1.50

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
218.	12.00	(CFS)	21.	5.	5.	5.
		(INCHES)	1.502	1.502	1.502	1.502
		(AC-FT)	10.	10.	10.	10.

CUMULATIVE AREA = .13 SQ MI

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

HYDROGRAPH AT STATION H1E
FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.68, TOTAL LOSS = 1.42, TOTAL EXCESS = 2.26

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
290.	12.00	(CFS)	31.	8.	8.	8.
		(INCHES)	2.219	2.257	2.257	2.257
		(AC-FT)	15.	16.	16.	16.

CUMULATIVE AREA = .13 SQ MI

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

HYDROGRAPH AT STATION H1E
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.48, TOTAL EXCESS = 2.61

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
323.	12.00	(CFS)	35.	9.	9.	9.
		(INCHES)	2.528	2.613	2.613	2.613
		(AC-FT)	18.	18.	18.	18.

CUMULATIVE AREA = .13 SQ MI

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

HYDROGRAPH AT STATION H1E
FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 4.87, TOTAL LOSS = 1.57, TOTAL EXCESS = 3.30

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
385.	12.00	(CFS)	43.	12.	11.	11.
		(INCHES)	3.091	3.300	3.300	3.300
		(AC-FT)	21.	23.	23.	23.

CUMULATIVE AREA = .13 SQ MI

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              *            *
452 KK        *      H1F   *
              *            *
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RUNOFF FROM H1F

SUBBASIN RUNOFF DATA

454 BA SUBBASIN CHARACTERISTICS
TAREA .12 SUBBASIN AREA

PRECIPITATION DATA

98 PB STORM 4.09 BASIN TOTAL PRECIPITATION

31 PI INCREMENTAL PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00		

455 LU UNIFORM LOSS RATE

STRTL	.65	INITIAL LOSS
CNSTL	.06	UNIFORM LOSS RATE
RTIMP	.00	PERCENT IMPERVIOUS AREA

456 UD SCS DIMENSIONLESS UNITGRAPH

TLAG	.14	LAG

***

UNIT HYDROGRAPH
10 END-OF-PERIOD ORDINATES

129. 318. 256. 118. 57. 27. 13. 6. 3. 1.

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.48, TOTAL EXCESS = 2.61

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
290.	12.00	(CFS)	33.	8.	8.	8.
		(INCHES)	2.528	2.613	2.613	2.613
		(AC-FT)	16.	17.	17.	17.

CUMULATIVE AREA = .12 SQ MI

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

HYDROGRAPH AT STATION H1F
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 2.78, TOTAL LOSS = 1.28, TOTAL EXCESS = 1.50

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
195.	12.00	(CFS)	19.	5.	5.	5.
		(INCHES)	1.502	1.502	1.502	1.502
		(AC-FT)	10.	10.	10.	10.

CUMULATIVE AREA = .12 SQ MI

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

HYDROGRAPH AT STATION H1F
FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.68, TOTAL LOSS = 1.42, TOTAL EXCESS = 2.26

PEAK FLOW (CFS)	TIME (HR)	MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR

260.	12.00	(CFS)	29.	7.	7.	7.
		(INCHES)	2.219	2.257	2.257	2.257
		(AC-FT)	14.	14.	14.	14.

CUMULATIVE AREA = .12 SQ MI

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

HYDROGRAPH AT STATION H1F
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.48, TOTAL EXCESS = 2.61

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
290.	12.00	(CFS)	33.	8.	8.	8.
		(INCHES)	2.528	2.613	2.613	2.613
		(AC-FT)	16.	17.	17.	17.

CUMULATIVE AREA = .12 SQ MI

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

HYDROGRAPH AT STATION H1F
FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 4.87, TOTAL LOSS = 1.57, TOTAL EXCESS = 3.30

FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
346.	12.00	(CFS)	40.	11.	10.	10.
		(INCHES)	3.091	3.300	3.300	3.300
		(AC-FT)	20.	21.	21.	21.

CUMULATIVE AREA = .12 SQ MI

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457 KK    *        53  *
          *            *
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HYDROGRAPH COMBINATION, FLOW FROM H1E AND H1F

459 HC HYDROGRAPH COMBINATION
ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

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

HYDROGRAPH AT STATION 53
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
413.	12.00	(CFS)	40.	10.	10.	10.
		(INCHES)	1.502	1.502	1.502	1.502
		(AC-FT)	20.	20.	20.	20.

CUMULATIVE AREA = .25 SQ MI

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

HYDROGRAPH AT STATION 53
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
550.	12.00	(CFS)	60.	15.	15.	15.
		(INCHES)	2.219	2.257	2.257	2.257
		(AC-FT)	30.	30.	30.	30.

CUMULATIVE AREA = .25 SQ MI

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

HYDROGRAPH AT STATION 53
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
613.	12.00	(CFS)	68.	18.	17.	17.
		(INCHES)	2.528	2.613	2.613	2.613
		(AC-FT)	34.	35.	35.	35.

CUMULATIVE AREA = .25 SQ MI

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

HYDROGRAPH AT STATION 53
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
731.	12.00	(CFS)	83.	22.	21.	21.
		(INCHES)	3.091	3.300	3.300	3.300
		(AC-FT)	41.	44.	44.	44.

CUMULATIVE AREA = .25 SQ MI

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          **************
          *            *
460 KK    *      R53   *
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*            *
**************
                ROUTING 53 TO 50

          HYDROGRAPH ROUTING DATA

RM          MUSKINGUM ROUTING
                 NSTPS          1 NUMBER OF SUBREACHES
                 AMSKK        .11 MUSKINGUM K
                     X        .20 MUSKINGUM X

                                                          ***

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

                  HYDROGRAPH AT STATION      R53
                    FOR PLAN 1, RATIO =  .68

PEAK FLOW    TIME                          MAXIMUM AVERAGE FLOW
  (CFS)      (HR)                  6-HR      24-HR      72-HR     24.92-HR
   367.     12.08       (CFS)       40.        10.        10.         10.
                      (INCHES)    1.502      1.502      1.502       1.502
                      (AC-FT)       20.        20.        20.         20.

                     CUMULATIVE AREA =     .25 SQ MI


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

                  HYDROGRAPH AT STATION      R53
                    FOR PLAN 1, RATIO =  .90

PEAK FLOW    TIME                          MAXIMUM AVERAGE FLOW
  (CFS)      (HR)                  6-HR      24-HR      72-HR     24.92-HR
   489.     12.08       (CFS)       60.        15.        15.         15.
                      (INCHES)    2.218      2.257      2.257       2.257
                      (AC-FT)       30.        30.        30.         30.

                     CUMULATIVE AREA =     .25 SQ MI


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

                  HYDROGRAPH AT STATION      R53
                    FOR PLAN 1, RATIO = 1.00

PEAK FLOW    TIME                          MAXIMUM AVERAGE FLOW
  (CFS)      (HR)                  6-HR      24-HR      72-HR     24.92-HR
   545.     12.08       (CFS)       68.        18.        17.         17.
                      (INCHES)    2.527      2.613      2.613       2.613
                      (AC-FT)       34.        35.        35.         35.

                     CUMULATIVE AREA =     .25 SQ MI


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

                  HYDROGRAPH AT STATION      R53
                    FOR PLAN 1, RATIO = 1.19
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PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
650.	12.08	(CFS)	83.	22.	21.	21.
		(INCHES)	3.090	3.300	3.300	3.300
		(AC-FT)	41.	44.	44.	44.

CUMULATIVE AREA = .25 SQ MI

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          **************
          *            *
463 KK    *        H1  *
          *            *
          **************
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RUNOFF FROM H1

SUBBASIN RUNOFF DATA

465 BA SUBBASIN CHARACTERISTICS

TAREA .24 SUBBASIN AREA

PRECIPITATION DATA

98 PB STORM 4.09 BASIN TOTAL PRECIPITATION

'I INCREMENTAL PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.01	.00	.01
.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00		

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466 LU          UNIFORM LOSS RATE
                     STRTL        .65  INITIAL LOSS
                     CNSTL        .06  UNIFORM LOSS RATE
                     RTIMP        .00  PERCENT IMPERVIOUS AREA

467 UD          SCS DIMENSIONLESS UNITGRAPH
                     TLAG         .13  LAG

                                                  ***

                                              UNIT HYDROGRAPH
                                          10 END-OF-PERIOD ORDINATES
            304.     678.     492.     210.      96.      44.      20.       9.       4.       1.

   TOTAL RAINFALL =    4.09, TOTAL LOSS =    1.48, TOTAL EXCESS =    2.61

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
   596.     12.00        (CFS)      65.         17.         16.         16.
                       (INCHES)    2.528       2.613       2.613       2.613
                       (AC-FT)      32.         33.         33.         33.

                       CUMULATIVE AREA =     .24 SQ MI


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

                       HYDROGRAPH AT STATION       H1
                         FOR PLAN 1, RATIO =  .68

   TOTAL RAINFALL =    2.78, TOTAL LOSS =    1.28, TOTAL EXCESS =    1.50

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
   402.     12.00        (CFS)      39.         10.          9.          9.
                       (INCHES)    1.502       1.502       1.502       1.502
                       (AC-FT)      19.         19.         19.         19.

                       CUMULATIVE AREA =     .24 SQ MI


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

                       HYDROGRAPH AT STATION       H1
                         FOR PLAN 1, RATIO =  .90

   TOTAL RAINFALL =    3.68, TOTAL LOSS =    1.42, TOTAL EXCESS =    2.26

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
   536.     12.00        (CFS)      57.         15.         14.         14.
                       (INCHES)    2.219       2.257       2.257       2.257
                       (AC-FT)      28.         29.         29.         29.

                       CUMULATIVE AREA =     .24 SQ MI


    ***            ***            ***            ***            ***
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HYDROGRAPH AT STATION H1
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.48, TOTAL EXCESS = 2.61

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
596.	12.00	(CFS)	65.	17.	16.	16.
		(INCHES)	2.528	2.613	2.613	2.613
		(AC-FT)	32.	33.	33.	33.

CUMULATIVE AREA = .24 SQ MI

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

HYDROGRAPH AT STATION H1
FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 4.87, TOTAL LOSS = 1.57, TOTAL EXCESS = 3.30

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
711.	12.00	(CFS)	80.	21.	21.	21.
		(INCHES)	3.091	3.300	3.300	3.300
		(AC-FT)	40.	42.	42.	42.

CUMULATIVE AREA = .24 SQ MI

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          **************
          *            *
468 KK    *       50A  *
          *            *
          **************
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HYDROGRAPH COMBINATION, FLOW FROM 53 AND H1; ABOVE CONFLUENCE

470 HC HYDROGRAPH COMBINATION
ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

***

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

HYDROGRAPH AT STATION 50A
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
739.	12.08	(CFS)	79.	20.	19.	19.
		(INCHES)	1.502	1.502	1.502	1.502
		(AC-FT)	39.	39.	39.	39.

CUMULATIVE AREA = .49 SQ MI

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

HYDROGRAPH AT STATION 50A
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
985.	12.08	(CFS)	117.	30.	29.	29.
		(INCHES)	2.218	2.257	2.257	2.257
		(AC-FT)	58.	59.	59.	59.

CUMULATIVE AREA = .49 SQ MI

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

HYDROGRAPH AT STATION 50A
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1096.	12.08	(CFS)	133.	34.	33.	33.
		(INCHES)	2.527	2.613	2.613	2.613
		(AC-FT)	66.	68.	68.	68.

CUMULATIVE AREA = .49 SQ MI

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

HYDROGRAPH AT STATION 50A
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1308.	12.08	(CFS)	163.	43.	42.	42.
		(INCHES)	3.090	3.300	3.300	3.300
		(AC-FT)	81.	86.	86.	86.

CUMULATIVE AREA = .49 SQ MI

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              **************
              *            *
471 KK        *      H1C   *
              *            *
              **************
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RUNOFF FROM H1C

SUBBASIN RUNOFF DATA

BA SUBBASIN CHARACTERISTICS
TAREA .25 SUBBASIN AREA

PRECIPITATION DATA

98 PB STORM 4.09 BASIN TOTAL PRECIPITATION

'I INCREMENTAL PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.01	.00	.01
.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00		

474 LU UNIFORM LOSS RATE

STRTL .65 INITIAL LOSS
CNSTL .06 UNIFORM LOSS RATE
RTIMP .00 PERCENT IMPERVIOUS AREA

475 UD SCS DIMENSIONLESS UNITGRAPH

TLAG .16 LAG

***

UNIT HYDROGRAPH
12 END-OF-PERIOD ORDINATES

200.	571.	545.	306.	155.	79.	40.	21.	11.	6.
3.	0.								

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.48, TOTAL EXCESS = 2.61

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
578.	12.08	(CFS)	68.	18.	17.	17.
		(INCHES)	2.527	2.613	2.613	2.613
		(AC-FT)	34.	35.	35.	35.

CUMULATIVE AREA = .25 SQ MI

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

HYDROGRAPH AT STATION H1C
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 2.78, TOTAL LOSS = 1.28, TOTAL EXCESS = 1.50

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
390.	12.08	(CFS)	40.	10.	10.	10.
		(INCHES)	1.502	1.502	1.502	1.502
		(AC-FT)	20.	20.	20.	20.

CUMULATIVE AREA = .25 SQ MI

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

HYDROGRAPH AT STATION H1C
FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.68, TOTAL LOSS = 1.42, TOTAL EXCESS = 2.26

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
519.	12.08	(CFS)	60.	15.	15.	15.
		(INCHES)	2.218	2.257	2.257	2.257
		(AC-FT)	30.	30.	30.	30.

CUMULATIVE AREA = .25 SQ MI

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

HYDROGRAPH AT STATION H1C
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.48, TOTAL EXCESS = 2.61

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
578.	12.08	(CFS)	68.	18.	17.	17.
		(INCHES)	2.527	2.613	2.613	2.613
		(AC-FT)	34.	35.	35.	35.

CUMULATIVE AREA = .25 SQ MI

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

HYDROGRAPH AT STATION H1C
FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 4.87, TOTAL LOSS = 1.57, TOTAL EXCESS = 3.30

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
689.	12.08	(CFS)	83.	22.	21.	21.
		(INCHES)	3.090	3.300	3.300	3.300

(AC-FT)	41.	44.	44.	44.

CUMULATIVE AREA = .25 SQ MI

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              **************
              *            *
476 KK        *        50  *
              *            *
              **************
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HYDROGRAPH COMBINATION, FLOW FROM 53, H1 AND H1C; BELOW CONFLUENCE

478 HC HYDROGRAPH COMBINATION

ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

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

HYDROGRAPH AT STATION 50
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
129.	12.08	(CFS)	120.	30.	29.	29.
		(INCHES)	1.502	1.502	1.502	1.502
		(AC-FT)	59.	59.	59.	59.

CUMULATIVE AREA = .74 SQ MI

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

HYDROGRAPH AT STATION 50
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1504.	12.08	(CFS)	177.	45.	43.	43.
		(INCHES)	2.218	2.257	2.257	2.257
		(AC-FT)	88.	89.	89.	89.

CUMULATIVE AREA = .74 SQ MI

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

HYDROGRAPH AT STATION 50
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1674.	12.08	(CFS)	201.	52.	50.	50.
		(INCHES)	2.527	2.613	2.613	2.613
		(AC-FT)	100.	103.	103.	103.

CUMULATIVE AREA = .74 SQ MI

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

HYDROGRAPH AT STATION 50
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1997.	12.08	(CFS)	246.	66.	63.	63.
		(INCHES)	3.090	3.300	3.300	3.300
		(AC-FT)	122.	130.	130.	130.

CUMULATIVE AREA = .74 SQ MI

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          **************
          *            *
479 KK    *      H1D   *
          *            *
          **************
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RUNOFF FROM H1D

SUBBASIN RUNOFF DATA

481 BA SUBBASIN CHARACTERISTICS
TAREA .09 SUBBASIN AREA

PRECIPITATION DATA

98 PB STORM 4.09 BASIN TOTAL PRECIPITATION

31 PI INCREMENTAL PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.01	.00	.01
.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00		

482 LU UNIFORM LOSS RATE

STRTL	.65	INITIAL LOSS
CNSTL	.12	UNIFORM LOSS RATE
RTIMP	.00	PERCENT IMPERVIOUS AREA

483 UD SCS DIMENSIONLESS UNITGRAPH

TLAG	.14	LAG

***

UNIT HYDROGRAPH
10 END-OF-PERIOD ORDINATES

97.	238.	192.	89.	43.	20.	9.	5.	2.	1.

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.91, TOTAL EXCESS = 2.18

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
214.	12.00	(CFS)	21.	5.	5.	5.
		(INCHES)	2.178	2.178	2.178	2.178
		(AC-FT)	10.	10.	10.	10.

CUMULATIVE AREA = .09 SQ MI

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

HYDROGRAPH AT STATION H1D
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 2.78, TOTAL LOSS = 1.50, TOTAL EXCESS = 1.28

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
143.	12.00	(CFS)	12.	3.	3.	3.
		(INCHES)	1.283	1.283	1.283	1.283
		(AC-FT)	6.	6.	6.	6.

CUMULATIVE AREA = .09 SQ MI

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HYDROGRAPH AT STATION H1D
FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.68, TOTAL LOSS = 1.79, TOTAL EXCESS = 1.90

PEAK FLOW (CFS)	TIME (HR)	MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR

192.	12.00	(CFS)	18.	5.	4.	4.
		(INCHES)	1.895	1.895	1.895	1.895
		(AC-FT)	9.	9.	9.	9.

CUMULATIVE AREA = .09 SQ MI

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HYDROGRAPH AT STATION H1D
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.91, TOTAL EXCESS = 2.18

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
214.	12.00	(CFS)	21.	5.	5.	5.
		(INCHES)	2.178	2.178	2.178	2.178
		(AC-FT)	10.	10.	10.	10.

CUMULATIVE AREA = .09 SQ MI

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

HYDROGRAPH AT STATION H1D
FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 4.87, TOTAL LOSS = 2.12, TOTAL EXCESS = 2.74

FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
256.	12.00	(CFS)	26.	7.	6.	6.
		(INCHES)	2.731	2.743	2.743	2.743
		(AC-FT)	13.	13.	13.	13.

CUMULATIVE AREA = .09 SQ MI

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484 KK    *      51B   *
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HYDROGRAPH COMBINATION, FLOW FROM 50 AND H1D; ABOVE CONFLUENCE

486 HC HYDROGRAPH COMBINATION
ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

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

HYDROGRAPH AT STATION 51B
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1266.	12.08	(CFS)	132.	33.	32.	32.
		(INCHES)	1.478	1.478	1.478	1.478
		(AC-FT)	65.	65.	65.	65.

CUMULATIVE AREA = .83 SQ MI

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

HYDROGRAPH AT STATION 51B
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1687.	12.08	(CFS)	195.	49.	48.	48.
		(INCHES)	2.183	2.218	2.218	2.218
		(AC-FT)	97.	98.	98.	98.

CUMULATIVE AREA = .83 SQ MI

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

HYDROGRAPH AT STATION 51B
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1879.	12.08	(CFS)	222.	57.	55.	55.
		(INCHES)	2.489	2.566	2.566	2.566
		(AC-FT)	110.	114.	114.	114.

CUMULATIVE AREA = .83 SQ MI

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

HYDROGRAPH AT STATION 51B
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
2243.	12.08	(CFS)	272.	72.	70.	70.
		(INCHES)	3.051	3.239	3.239	3.239
		(AC-FT)	135.	143.	143.	143.

CUMULATIVE AREA = .83 SQ MI

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487 KK    *      H1A   *
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                RUNOFF FROM H1A
                BEGIN GRAPEVINE WASH

      SUBBASIN RUNOFF DATA

490 BA      SUBBASIN CHARACTERISTICS
                TAREA        3.48  SUBBASIN AREA

            PRECIPITATION DATA

98 PB           STORM        4.09  BASIN TOTAL PRECIPITATION

31 PI         INCREMENTAL PRECIPITATION PATTERN
                .00    .00    .00    .00    .00    .00    .00    .00    .00    .00
                .00    .00    .00    .00    .00    .00    .00    .00    .00    .00
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                .03    .09    .09    .09    .01    .01    .01    .01    .01    .01
                .01    .01    .01    .01    .01    .01    .00    .00    .00    .00
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                .00    .00    .00    .00    .00    .00    .00    .00    .00    .00
                .00    .00    .00    .00    .00    .00    .00    .00
491 LU      UNIFORM LOSS RATE
                STRTL        .65  INITIAL LOSS
                CNSTL        .06  UNIFORM LOSS RATE
                RTIMP        .00  PERCENT IMPERVIOUS AREA

492 UD      SCS DIMENSIONLESS UNITGRAPH
                TLAG         .44  LAG

                                        ***

                                   UNIT HYDROGRAPH
                              28 END-OF-PERIOD ORDINATES
      283.    856.   1767.   2819.   3384.   3479.   3220.   2768.   2135.   1533.
     1147.    881.    671.    498.    377.    286.    215.    162.    123.     93.
       70.     52.     40.     32.     25.     18.     11.      5.
```

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.48, TOTAL EXCESS = 2.61

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
5057.	12.33	(CFS)	943.	244.	235.	235.
		(INCHES)	2.521	2.613	2.613	2.613
		(AC-FT)	468.	485.	485.	485.

CUMULATIVE AREA = 3.48 SQ MI

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

HYDROGRAPH AT STATION H1A
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 2.78, TOTAL LOSS = 1.28, TOTAL EXCESS = 1.50

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
3388.	12.33	(CFS)	562.	141.	135.	135.
		(INCHES)	1.501	1.502	1.502	1.502
		(AC-FT)	279.	279.	279.	279.

CUMULATIVE AREA = 3.48 SQ MI

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

HYDROGRAPH AT STATION H1A
FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.68, TOTAL LOSS = 1.42, TOTAL EXCESS = 2.26

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
4537.	12.33	(CFS)	828.	211.	203.	203.
		(INCHES)	2.213	2.257	2.257	2.257
		(AC-FT)	411.	419.	419.	419.

CUMULATIVE AREA = 3.48 SQ MI

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

HYDROGRAPH AT STATION H1A
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.48, TOTAL EXCESS = 2.61

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
5057.	12.33	(CFS)	943.	244.	235.	235.
		(INCHES)	2.521	2.613	2.613	2.613
		(AC-FT)	468.	485.	485.	485.

CUMULATIVE AREA = 3.48 SQ MI

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

                    HYDROGRAPH AT STATION      H1A
                      FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL =    4.87, TOTAL LOSS =    1.57, TOTAL EXCESS =    3.30

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
  6043.      12.33       (CFS)     1155.       309.        297.        297.
                       (INCHES)    3.086      3.300       3.300       3.300
                       (AC-FT)     573.       612.        612.        612.

                     CUMULATIVE AREA =    3.48 SQ MI


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          *            *
493 KK    *       R49  *
          *            *
          **************
                    ROUTING 49 TO 51A

             HYDROGRAPH ROUTING DATA

   M          MUSKINGUM ROUTING
                   NSTPS         3 NUMBER OF SUBREACHES
                   AMSKK       .35 MUSKINGUM K
                       X       .20 MUSKINGUM X

                                                          ***

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

                    HYDROGRAPH AT STATION      R49
                      FOR PLAN 1, RATIO =  .68

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
  3028.      12.67       (CFS)     562.        141.        135.        135.
                       (INCHES)    1.500      1.502       1.502       1.502
                       (AC-FT)     278.       279.        279.        279.

                     CUMULATIVE AREA =    3.48 SQ MI


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

                    HYDROGRAPH AT STATION      R49
                      FOR PLAN 1, RATIO =  .90

K FLOW        TIME                          MAXIMUM AVERAGE FLOW
CFS)          (HR)                 6-HR       24-HR       72-HR     24.92-HR
  4064.      12.67       (CFS)     828.        211.        203.        203.
                       (INCHES)    2.212      2.257       2.257       2.257
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(AC-FT)	411.	419.	419.	419.

CUMULATIVE AREA = 3.48 SQ MI

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HYDROGRAPH AT STATION R49
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
4531.	12.67	(CFS)	943.	244.	235.	235.
		(INCHES)	2.519	2.613	2.613	2.613
		(AC-FT)	468.	485.	485.	485.

CUMULATIVE AREA = 3.48 SQ MI

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

HYDROGRAPH AT STATION R49
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
5417.	12.67	(CFS)	1155.	309.	297.	297.
		(INCHES)	3.085	3.300	3.300	3.300
		(AC-FT)	573.	612.	612.	612.

CUMULATIVE AREA = 3.48 SQ MI

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              *            *
496 KK        *      H1B   *
              *            *
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RUNOFF FROM H1B

SUBBASIN RUNOFF DATA

498 BA SUBBASIN CHARACTERISTICS
TAREA .32 SUBBASIN AREA

PRECIPITATION DATA

98 PB STORM 4.09 BASIN TOTAL PRECIPITATION

31 PI INCREMENTAL PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00		

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499 LU          UNIFORM LOSS RATE
                     STRTL        .65  INITIAL LOSS
                     CNSTL        .09  UNIFORM LOSS RATE
                     RTIMP        .00  PERCENT IMPERVIOUS AREA

JD              SCS DIMENSIONLESS UNITGRAPH
                     TLAG         .22  LAG

                                                  ***

                                              UNIT HYDROGRAPH
                                          15 END-OF-PERIOD ORDINATES
            126.     426.     590.     520.     337.     192.     117.      70.      41.      24.
             15.       9.       6.       3.       1.

   TOTAL RAINFALL =    4.09, TOTAL LOSS =    1.73, TOTAL EXCESS =    2.36

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
   665.     12.08       (CFS)       81.         20.         20.         20.
                      (INCHES)    2.349       2.361       2.361       2.361
                      (AC-FT)       40.         40.         40.         40.

                      CUMULATIVE AREA =     .32 SQ MI


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

                      HYDROGRAPH AT STATION      H1B
                        FOR PLAN 1, RATIO =  .68

   TOTAL RAINFALL =    2.78, TOTAL LOSS =    1.41, TOTAL EXCESS =    1.37

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
```

446.	12.08	(CFS)	47.	12.	11.	11.
		(INCHES)	1.374	1.374	1.374	1.374
		(AC-FT)	23.	23.	23.	23.

CUMULATIVE AREA = .32 SQ MI

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

HYDROGRAPH AT STATION H1B
FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.68, TOTAL LOSS = 1.64, TOTAL EXCESS = 2.04

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
596.	12.08	(CFS)	70.	18.	17.	17.
		(INCHES)	2.043	2.043	2.043	2.043
		(AC-FT)	35.	35.	35.	35.

CUMULATIVE AREA = .32 SQ MI

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

HYDROGRAPH AT STATION H1B
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.73, TOTAL EXCESS = 2.36

FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
665.	12.08	(CFS)	81.	20.	20.	20.
		(INCHES)	2.349	2.361	2.361	2.361
		(AC-FT)	40.	40.	40.	40.

CUMULATIVE AREA = .32 SQ MI

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

HYDROGRAPH AT STATION H1B
FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 4.87, TOTAL LOSS = 1.88, TOTAL EXCESS = 2.99

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
794.	12.08	(CFS)	100.	26.	25.	25.
		(INCHES)	2.910	2.987	2.987	2.987
		(AC-FT)	50.	51.	51.	51.

CUMULATIVE AREA = .32 SQ MI

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              *            *
501 KK        *      51A   *
              *            *
              **************
                    HYDROGRAPH COMBINATION, FLOW FROM H1A AND H1B;
                    ABOVE CONFLUENCE WITH ROWE WASH

504 HC          HYDROGRAPH COMBINATION
                     ICOMP          2  NUMBER OF HYDROGRAPHS TO COMBINE

                                                          ***

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

                      HYDROGRAPH AT STATION      51A
                        FOR PLAN 1, RATIO =  .68

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   3097.     12.67        (CFS)     608.        152.        147.        147.
                        (INCHES)   1.489       1.491       1.491       1.491
                         (AC-FT)    302.        302.        302.        302.

                       CUMULATIVE AREA =    3.80 SQ MI


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

                      HYDROGRAPH AT STATION      51A
                        FOR PLAN 1, RATIO =  .90

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   4161.     12.67        (CFS)     897.        229.        220.        220.
                        (INCHES)   2.196       2.239       2.239       2.239
                         (AC-FT)    445.        454.        454.        454.

                       CUMULATIVE AREA =    3.80 SQ MI


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

                      HYDROGRAPH AT STATION      51A
                        FOR PLAN 1, RATIO = 1.00

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   4640.     12.67        (CFS)    1023.        265.        255.        255.
                        (INCHES)   2.503       2.592       2.592       2.592
                         (AC-FT)    507.        525.        525.        525.

                       CUMULATIVE AREA =    3.80 SQ MI


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

                      HYDROGRAPH AT STATION      51A
                        FOR PLAN 1, RATIO = 1.19
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PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
5551.	12.67	(CFS)	1254.	334.	322.	322.
		(INCHES)	3.069	3.274	3.274	3.274
		(AC-FT)	622.	663.	663.	663.

CUMULATIVE AREA = 3.80 SQ MI

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          *            *
505 KK    *        51  *
          *            *
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HYDROGRAPH COMBINATION, FLOW FROM H1A, H1B, H1D AND 50;
BELOW CONFLUENCE OF ROWE/GRAPEVINE WASH

508 HC HYDROGRAPH COMBINATION
ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

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

HYDROGRAPH AT STATION 51
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
3240.	12.67	(CFS)	740.	185.	179.	179.
		(INCHES)	1.486	1.489	1.489	1.489
		(AC-FT)	367.	368.	368.	368.

CUMULATIVE AREA = 4.63 SQ MI

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

HYDROGRAPH AT STATION 51
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
4362.	12.67	(CFS)	1090.	278.	268.	268.
		(INCHES)	2.190	2.235	2.235	2.235
		(AC-FT)	541.	552.	552.	552.

CUMULATIVE AREA = 4.63 SQ MI

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

HYDROGRAPH AT STATION 51
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
4868.	12.67	(CFS)	1243.	322.	310.	310.
		(INCHES)	2.496	2.587	2.587	2.587
		(AC-FT)	616.	639.	639.	639.

CUMULATIVE AREA = 4.63 SQ MI

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

HYDROGRAPH AT STATION 51
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
5829.	12.67	(CFS)	1525.	407.	392.	392.
		(INCHES)	3.062	3.267	3.267	3.267
		(AC-FT)	756.	807.	807.	807.

CUMULATIVE AREA = 4.63 SQ MI

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.K      **************
        *            *
        *       R51  *
        *            *
        **************
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ROUTING 51 TO 71A

HYDROGRAPH ROUTING DATA

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511 RM        MUSKINGUM ROUTING
                   NSTPS        4 NUMBER OF SUBREACHES
                   AMSKK      .44 MUSKINGUM K
                       X      .20 MUSKINGUM X
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***

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

HYDROGRAPH AT STATION R51
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
3011.	13.08	(CFS)	740.	185.	179.	179.
		(INCHES)	1.486	1.489	1.489	1.489
		(AC-FT)	367.	368.	368.	368.

CUMULATIVE AREA = 4.63 SQ MI

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

HYDROGRAPH AT STATION R51
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
4065.	13.00	(CFS)	1090.	278.	268.	268.
		(INCHES)	2.189	2.235	2.235	2.235
		(AC-FT)	540.	552.	552.	552.

CUMULATIVE AREA = 4.63 SQ MI

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

HYDROGRAPH AT STATION R51
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
4538.	13.00	(CFS)	1242.	322.	310.	310.
		(INCHES)	2.495	2.587	2.587	2.587
		(AC-FT)	616.	639.	639.	639.

CUMULATIVE AREA = 4.63 SQ MI

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

HYDROGRAPH AT STATION R51
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
5436.	13.00	(CFS)	1524.	407.	392.	392.
		(INCHES)	3.061	3.267	3.267	3.267
		(AC-FT)	756.	807.	807.	807.

CUMULATIVE AREA = 4.63 SQ MI

*** ***

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          **************
          *            *
512 KK    *         H  *
          *            *
          **************
```

RUNOFF FROM H

SUBBASIN RUNOFF DATA

51' BA SUBBASIN CHARACTERISTICS
TAREA .68 SUBBASIN AREA

PRECIPITATION DATA

98 PB STORM 4.09 BASIN TOTAL PRECIPITATION

31 PI INCREMENTAL PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.01	.00	.01
.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

515 LU UNIFORM LOSS RATE

STRTL	.65	INITIAL LOSS
CNSTL	.23	UNIFORM LOSS RATE
RTIMP	.00	PERCENT IMPERVIOUS AREA

516 UD SCS DIMENSIONLESS UNITGRAPH

TLAG	1.00	LAG

***

UNIT HYDROGRAPH
62 END-OF-PERIOD ORDINATES

8.	23.	43.	68.	98.	138.	184.	228.	266.	293.
308.	314.	314.	308.	293.	276.	256.	233.	207.	177.
151.	132.	115.	101.	88.	79.	70.	62.	54.	46.
41.	36.	32.	28.	24.	22.	19.	16.	15.	13.
11.	10.	9.	8.	7.	6.	5.	4.	4.	3.
3.	3.	3.	2.	2.	2.	1.	1.	1.	1.
0.	0.								

TOTAL RAINFALL = 4.09, TOTAL LOSS = 2.32, TOTAL EXCESS = 1.77

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
)	(HR)		6-HR	24-HR	72-HR	24.92-HR
502.	12.83	(CFS)	130.	32.	31.	31.
		(INCHES)	1.772	1.772	1.772	1.772
		(AC-FT)	64.	64.	64.	64.

CUMULATIVE AREA = .68 SQ MI

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

HYDROGRAPH AT STATION H
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 2.78, TOTAL LOSS = 1.73, TOTAL EXCESS = 1.05

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
313.	12.83	(CFS)	77.	19.	18.	18.
		(INCHES)	1.049	1.049	1.049	1.049
		(AC-FT)	38.	38.	38.	38.

CUMULATIVE AREA = .68 SQ MI

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

HYDROGRAPH AT STATION H
FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.68, TOTAL LOSS = 2.14, TOTAL EXCESS = 1.54

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
442.	12.83	(CFS)	112.	28.	27.	27.
		(INCHES)	1.536	1.536	1.536	1.536
		(AC-FT)	56.	56.	56.	56.

CUMULATIVE AREA = .68 SQ MI

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

HYDROGRAPH AT STATION H
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.09, TOTAL LOSS = 2.32, TOTAL EXCESS = 1.77

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
502.	12.83	(CFS)	130.	32.	31.	31.
		(INCHES)	1.772	1.772	1.772	1.772
		(AC-FT)	64.	64.	64.	64.

CUMULATIVE AREA = .68 SQ MI

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

HYDROGRAPH AT STATION H
FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 4.87, TOTAL LOSS = 2.63, TOTAL EXCESS = 2.24

PEAK FLOW (CFS)	TIME (HR)	MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR

614.	12.83	(CFS)	163.	41.	39.	39.
		(INCHES)	2.235	2.236	2.236	2.236
		(AC-FT)	81.	81.	81.	81.

CUMULATIVE AREA = .68 SQ MI

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              **************
              *            *
517 KK        *      71A   *
              *            *
              **************
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HYDROGRAPH COMBINATION, FLOW FROM 51 AND H; ABOVE CONFLUENCE

519 HC HYDROGRAPH COMBINATION

ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

***

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

HYDROGRAPH AT STATION 71A
FOR PLAN 1, RATIO = .68

P FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
6313.	13.00	(CFS)	817.	205.	197.	197.
		(INCHES)	1.430	1.432	1.432	1.432
		(AC-FT)	405.	406.	406.	406.

CUMULATIVE AREA = 5.31 SQ MI

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

HYDROGRAPH AT STATION 71A
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
4496.	13.00	(CFS)	1202.	306.	295.	295.
		(INCHES)	2.105	2.146	2.146	2.146
		(AC-FT)	596.	608.	608.	608.

CUMULATIVE AREA = 5.31 SQ MI

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

HYDROGRAPH AT STATION 71A
FOR PLAN 1, RATIO = 1.00

K FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
5027.	13.00	(CFS)	1372.	354.	341.	341.

(INCHES)	2.402	2.483	2.483	2.483
(AC-FT)	680.	703.	703.	703.

CUMULATIVE AREA = 5.31 SQ MI

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

HYDROGRAPH AT STATION 71A
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
6036.	13.00	(CFS)	1687.	448.	431.	431.
		(INCHES)	2.954	3.135	3.135	3.135
		(AC-FT)	837.	888.	888.	888.

CUMULATIVE AREA = 5.31 SQ MI

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          **************
          *            *
520 KK    *       H2   *
          *            *
          **************
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RUNOFF FROM H2

SUBBASIN RUNOFF DATA

522 BA SUBBASIN CHARACTERISTICS
TAREA .21 SUBBASIN AREA

PRECIPITATION DATA

98 PB STORM 4.09 BASIN TOTAL PRECIPITATION

31 PI INCREMENTAL PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.01	.00	.01
.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00		

523 LU UNIFORM LOSS RATE

STRTL	.65	INITIAL LOSS
CNSTL	.16	UNIFORM LOSS RATE
RTIMP	.00	PERCENT IMPERVIOUS AREA

524 UD SCS DIMENSIONLESS UNITGRAPH

TLAG	.48	LAG

***

UNIT HYDROGRAPH
31 END-OF-PERIOD ORDINATES

14.	42.	85.	140.	181.	194.	190.	170.	144.	110.
82.	63.	49.	38.	29.	23.	17.	13.	10.	8.
6.	5.	4.	3.	2.	2.	1.	1.	1.	0.
0.									

TOTAL RAINFALL = 4.09, TOTAL LOSS = 2.10, TOTAL EXCESS = 1.99

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
279.	12.33	(CFS)	45.	11.	11.	11.
		(INCHES)	1.994	1.994	1.994	1.994
		(AC-FT)	22.	22.	22.	22.

CUMULATIVE AREA = .21 SQ MI

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

HYDROGRAPH AT STATION H2
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 2.78, TOTAL LOSS = 1.60, TOTAL EXCESS = 1.18

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
182.	12.33	(CFS)	27.	7.	6.	6.
		(INCHES)	1.185	1.185	1.185	1.185
		(AC-FT)	13.	13.	13.	13.

CUMULATIVE AREA = .21 SQ MI

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

HYDROGRAPH AT STATION H2
FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.68, TOTAL LOSS = 1.94, TOTAL EXCESS = 1.74

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
248.	12.33	(CFS)	39.	10.	9.	9.
		(INCHES)	1.737	1.737	1.737	1.737
		(AC-FT)	19.	19.	19.	19.

CUMULATIVE AREA = .21 SQ MI

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

HYDROGRAPH AT STATION H2
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.09, TOTAL LOSS = 2.10, TOTAL EXCESS = 1.99

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
279.	12.33	(CFS)	45.	11.	11.	11.
		(INCHES)	1.994	1.994	1.994	1.994
		(AC-FT)	22.	22.	22.	22.

CUMULATIVE AREA = .21 SQ MI

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

HYDROGRAPH AT STATION H2
FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 4.87, TOTAL LOSS = 2.36, TOTAL EXCESS = 2.51

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
336.	12.33	(CFS)	57.	14.	14.	14.
		(INCHES)	2.506	2.506	2.506	2.506
		(AC-FT)	28.	28.	28.	28.

CUMULATIVE AREA = .21 SQ MI

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              **************
              *            *
525 KK        *        H3  *
              *            *
              **************
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RUNOFF FROM H3

SUBBASIN RUNOFF DATA

527 BA SUBBASIN CHARACTERISTICS
TAREA .35 SUBBASIN AREA

PRECIPITATION DATA

PB STORM 4.09 BASIN TOTAL PRECIPITATION

PI INCREMENTAL PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.01	.00	.01
.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
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.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00		

528 LU UNIFORM LOSS RATE

STRTL	.65	INITIAL LOSS
CNSTL	.14	UNIFORM LOSS RATE
RTIMP	.00	PERCENT IMPERVIOUS AREA

529 UD SCS DIMENSIONLESS UNITGRAPH

TLAG	.37	LAG

***

UNIT HYDROGRAPH

24 END-OF-PERIOD ORDINATES

42.	131.	276.	385.	411.	378.	314.	222.	155.	111.
82.	58.	42.	30.	21.	16.	11.	8.	6.	4.
3.	2.	1.	1.						

TOTAL RAINFALL = 4.09, TOTAL LOSS = 2.01, TOTAL EXCESS = 2.08

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
)	(HR)		6-HR	24-HR	72-HR	24.92-HR
548.	12.25	(CFS)	78.	20.	19.	19.
		(INCHES)	2.079	2.079	2.079	2.079
		(AC-FT)	39.	39.	39.	39.

CUMULATIVE AREA = .35 SQ MI

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

HYDROGRAPH AT STATION H3
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 2.78, TOTAL LOSS = 1.55, TOTAL EXCESS = 1.23

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
362.	12.25	(CFS)	46.	12.	11.	11.
		(INCHES)	1.232	1.232	1.232	1.232
		(AC-FT)	23.	23.	23.	23.

CUMULATIVE AREA = .35 SQ MI

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

HYDROGRAPH AT STATION H3
FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.68, TOTAL LOSS = 1.87, TOTAL EXCESS = 1.81

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
490.	12.25	(CFS)	68.	17.	16.	16.
		(INCHES)	1.811	1.811	1.811	1.811
		(AC-FT)	34.	34.	34.	34.

CUMULATIVE AREA = .35 SQ MI

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

HYDROGRAPH AT STATION H3
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.09, TOTAL LOSS = 2.01, TOTAL EXCESS = 2.08

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
548.	12.25	(CFS)	78.	20.	19.	19.
		(INCHES)	2.079	2.079	2.079	2.079
		(AC-FT)	39.	39.	39.	39.

CUMULATIVE AREA = .35 SQ MI

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

HYDROGRAPH AT STATION H3
FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 4.87, TOTAL LOSS = 2.25, TOTAL EXCESS = 2.61

PEAK FLOW (CFS)	TIME (HR)	MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR

658.	12.25	(CFS)	98.	25.	24.	24.
		(INCHES)	2.612	2.613	2.613	2.613
		(AC-FT)	49.	49.	49.	49.

CUMULATIVE AREA = .35 SQ MI

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          **************
          *            *
530 KK    *        I5  *
          *            *
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BEGIN SOUTH GALLOWAY WASH
RUNOFF FROM I5

SUBBASIN RUNOFF DATA

533 BA SUBBASIN CHARACTERISTICS

TAREA 4.98 SUBBASIN AREA

PRECIPITATION DATA

98 PB STORM 4.09 BASIN TOTAL PRECIPITATION

INCREMENTAL PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.01	.00	.01
.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00		

534 LU UNIFORM LOSS RATE

STRTL	.65	INITIAL LOSS
CNSTL	.16	UNIFORM LOSS RATE
RTIMP	.00	PERCENT IMPERVIOUS AREA

UD SCS DIMENSIONLESS UNITGRAPH

TLAG	1.32	LAG

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UNIT HYDROGRAPH
81 END-OF-PERIOD ORDINATES

32.	81.	156.	248.	348.	478.	628.	801.	1001.	1200.
1373.	1515.	1634.	1703.	1752.	1763.	1759.	1747.	1682.	1613.
1538.	1454.	1365.	1256.	1138.	1008.	897.	796.	720.	651.
586.	531.	482.	443.	403.	364.	332.	299.	267.	243.
221.	199.	181.	164.	148.	133.	121.	109.	97.	89.
81.	73.	66.	60.	55.	49.	45.	41.	37.	33.
30.	27.	25.	22.	20.	19.	17.	16.	15.	13.
12.	11.	10.	8.	7.	6.	5.	4.	3.	2.
1.									

TOTAL RAINFALL = 4.09, TOTAL LOSS = 2.10, TOTAL EXCESS = 1.99

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
3113.	13.17	(CFS)	1061.	267.	257.	257.
		(INCHES)	1.981	1.994	1.994	1.994
		(AC-FT)	526.	530.	530.	530.

CUMULATIVE AREA = 4.98 SQ MI

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

HYDROGRAPH AT STATION 15
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 2.78, TOTAL LOSS = 1.60, TOTAL EXCESS = 1.18

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1963.	13.17	(CFS)	633.	159.	153.	153.
		(INCHES)	1.181	1.185	1.185	1.185
		(AC-FT)	314.	315.	315.	315.

CUMULATIVE AREA = 4.98 SQ MI

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

HYDROGRAPH AT STATION 15
FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.68, TOTAL LOSS = 1.94, TOTAL EXCESS = 1.74

K FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
2755.	13.17	(CFS)	925.	233.	224.	224.
		(INCHES)	1.727	1.737	1.737	1.737

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                    (AC-FT)      459.        461.        461.        461.

                    CUMULATIVE AREA =    4.98 SQ MI


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

                    HYDROGRAPH AT STATION       I5
                      FOR PLAN 1, RATIO = 1.00

   TOTAL RAINFALL =    4.09, TOTAL LOSS =    2.10, TOTAL EXCESS =    1.99

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
  3113.      13.17      (CFS)     1061.        267.        257.        257.
                       (INCHES)    1.981       1.994       1.994       1.994
                       (AC-FT)     526.        530.        530.        530.

                    CUMULATIVE AREA =    4.98 SQ MI


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

                    HYDROGRAPH AT STATION       I5
                      FOR PLAN 1, RATIO = 1.19

   TOTAL RAINFALL =    4.87, TOTAL LOSS =    2.36, TOTAL EXCESS =    2.51

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
  4797.      13.17      (CFS)     1329.        336.        323.        323.
                       (INCHES)    2.482       2.506       2.506       2.506
                       (AC-FT)     659.        666.        666.        666.

                    CUMULATIVE AREA =    4.98 SQ MI


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


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          *            *
536 KK    *       R52  *
          *            *
          **************
                    ROUTING 52 TO 71B

            HYDROGRAPH ROUTING DATA

538 RM          MUSKINGUM ROUTING
                     NSTPS         3 NUMBER OF SUBREACHES
                     AMSKK       .29 MUSKINGUM K
                         X       .20 MUSKINGUM X

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***            ***            ***            ***            ***
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HYDROGRAPH AT STATION R52
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1934.	13.50	(CFS)	632.	159.	153.	153.
		(INCHES)	1.181	1.185	1.185	1.185
		(AC-FT)	314.	315.	315.	315.

CUMULATIVE AREA = 4.98 SQ MI

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

HYDROGRAPH AT STATION R52
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
2717.	13.50	(CFS)	925.	233.	224.	224.
		(INCHES)	1.727	1.737	1.737	1.737
		(AC-FT)	459.	461.	461.	461.

CUMULATIVE AREA = 4.98 SQ MI

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

HYDROGRAPH AT STATION R52
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
3071.	13.50	(CFS)	1061.	267.	257.	257.
		(INCHES)	1.980	1.994	1.994	1.994
		(AC-FT)	526.	530.	530.	530.

CUMULATIVE AREA = 4.98 SQ MI

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

HYDROGRAPH AT STATION R52
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
3747.	13.50	(CFS)	1329.	336.	323.	323.
		(INCHES)	2.481	2.506	2.506	2.506
		(AC-FT)	659.	666.	666.	666.

CUMULATIVE AREA = 4.98 SQ MI

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          *          *
539 KK    *       I6 *
          *          *
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RUNOFF FROM I6

SUBBASIN RUNOFF DATA

541 BA SUBBASIN CHARACTERISTICS

TAREA 1.82 SUBBASIN AREA

PRECIPITATION DATA

98 PB STORM 4.09 BASIN TOTAL PRECIPITATION

31 PI INCREMENTAL PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.01	.00	.01
.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00		

542 LU UNIFORM LOSS RATE

STRTL .65 INITIAL LOSS

CNSTL .16 UNIFORM LOSS RATE

RTIMP .00 PERCENT IMPERVIOUS AREA

543 UD SCS DIMENSIONLESS UNITGRAPH

TLAG 1.32 LAG

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UNIT HYDROGRAPH

81 END-OF-PERIOD ORDINATES

12.	29.	57.	91.	127.	175.	229.	293.	366.	439.
502.	554.	597.	622.	640.	644.	643.	639.	615.	590.

562.	531.	499.	459.	416.	368.	328.	291.	263.	238.
214.	194.	176.	162.	147.	133.	121.	109.	97.	89.
81.	73.	66.	60.	54.	49.	44.	40.	36.	33.
30.	27.	24.	22.	20.	18.	16.	15.	13.	12.
11.	10.	9.	8.	7.	7.	6.	6.	5.	5.
4.	4.	3.	3.	3.	2.	2.	1.	1.	1.
0.									

TOTAL RAINFALL = 4.09, TOTAL LOSS = 2.10, TOTAL EXCESS = 1.99

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1138.	13.17	(CFS)	388.	98.	94.	94.
		(INCHES)	1.981	1.994	1.994	1.994
		(AC-FT)	192.	194.	194.	194.

CUMULATIVE AREA = 1.82 SQ MI

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

HYDROGRAPH AT STATION I6
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 2.78, TOTAL LOSS = 1.60, TOTAL EXCESS = 1.18

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
718.	13.17	(CFS)	231.	58.	56.	56.
		(INCHES)	1.181	1.185	1.185	1.185
		(AC-FT)	115.	115.	115.	115.

CUMULATIVE AREA = 1.82 SQ MI

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HYDROGRAPH AT STATION I6
FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.68, TOTAL LOSS = 1.94, TOTAL EXCESS = 1.74

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1007.	13.17	(CFS)	338.	85.	82.	82.
		(INCHES)	1.727	1.737	1.737	1.737
		(AC-FT)	168.	169.	169.	169.

CUMULATIVE AREA = 1.82 SQ MI

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

HYDROGRAPH AT STATION I6
FOR PLAN 1, RATIO = 1.00

OTAL RAINFALL = 4.09, TOTAL LOSS = 2.10, TOTAL EXCESS = 1.99

PEAK FLOW (CFS)	TIME (HR)	MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR

1138.	13.17	(CFS)	388.	98.	94.	94.
		(INCHES)	1.981	1.994	1.994	1.994
		(AC-FT)	192.	194.	194.	194.

CUMULATIVE AREA = 1.82 SQ MI

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

HYDROGRAPH AT STATION I6
FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 4.87, TOTAL LOSS = 2.36, TOTAL EXCESS = 2.51

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1388.	13.17	(CFS)	486.	123.	118.	118.
		(INCHES)	2.482	2.506	2.506	2.506
		(AC-FT)	241.	243.	243.	243.

CUMULATIVE AREA = 1.82 SQ MI

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**************
*            *
.K     *      71B  *
*            *
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HYDROGRAPH COMBINATION, FLOW FROM I5 AND I6;
ABOVE CONFLUENCE WITH ROWE WASH

547 HC HYDROGRAPH COMBINATION
ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

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

HYDROGRAPH AT STATION 71B
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
2613.	13.42	(CFS)	863.	217.	209.	209.
		(INCHES)	1.181	1.185	1.185	1.185
		(AC-FT)	428.	430.	430.	430.

CUMULATIVE AREA = 6.80 SQ MI

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HYDROGRAPH AT STATION 71B
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
3673.	13.42	(CFS)	1263.	318.	306.	306.
		(INCHES)	1.726	1.737	1.737	1.737
		(AC-FT)	626.	630.	630.	630.

CUMULATIVE AREA = 6.80 SQ MI

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HYDROGRAPH AT STATION 71B
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
4152.	13.42	(CFS)	1448.	365.	351.	351.
		(INCHES)	1.980	1.994	1.994	1.994
		(AC-FT)	718.	723.	723.	723.

CUMULATIVE AREA = 6.80 SQ MI

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HYDROGRAPH AT STATION 71B
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
[illegible]067.	13.42	(CFS)	1814.	458.	441.	441.
		(INCHES)	2.481	2.506	2.506	2.506
		(AC-FT)	900.	909.	909.	909.

CUMULATIVE AREA = 6.80 SQ MI

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              **************
              *            *
548 KK        *        71  *
              *            *
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BELOW CONFLUENCE OF NORTH GALLOWAY/SOUTH GALLOWAY/ROWE WASH

550 HC HYDROGRAPH COMBINATION
ICOMP 5 NUMBER OF HYDROGRAPHS TO COMBINE

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

HYDROGRAPH AT STATION 71
FOR PLAN 1, RATIO = .68

PEAK FLOW TIME MAXIMUM AVERAGE FLOW

(CFS)	(HR)		6-HR	24-HR	72-HR	24.92-HR
9944.	13.00	(CFS)	2761.	692.	666.	666.
		(INCHES)	1.327	1.331	1.331	1.331
		(AC-FT)	1369.	1372.	1372.	1372.

CUMULATIVE AREA = 19.34 SQ MI

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HYDROGRAPH AT STATION 71
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
13641.	13.00	(CFS)	4062.	1029.	991.	991.
		(INCHES)	1.953	1.978	1.978	1.978
		(AC-FT)	2014.	2040.	2040.	2040.

CUMULATIVE AREA = 19.34 SQ MI

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

HYDROGRAPH AT STATION 71
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
[illegible]301.	13.00	(CFS)	4642.	1186.	1143.	1143.
		(INCHES)	2.231	2.281	2.281	2.281
		(AC-FT)	2302.	2353.	2353.	2353.

CUMULATIVE AREA = 19.34 SQ MI

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

HYDROGRAPH AT STATION 71
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
18462.	13.00	(CFS)	5742.	1496.	1441.	1441.
		(INCHES)	2.760	2.877	2.877	2.877
		(AC-FT)	2847.	2968.	2968.	2968.

CUMULATIVE AREA = 19.34 SQ MI

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*            *
*      R71   *
*            *
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551 KK

ROUTING 71 TO I

HYDROGRAPH ROUTING DATA

RM MUSKINGUM ROUTING

NSTPS	2	NUMBER OF SUBREACHES
AMSKK	.22	MUSKINGUM K
X	.20	MUSKINGUM X

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

HYDROGRAPH AT STATION R71
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
9701.	13.25	(CFS)	2761.	692.	666.	666.
		(INCHES)	1.327	1.331	1.331	1.331
		(AC-FT)	1369.	1372.	1372.	1372.

CUMULATIVE AREA = 19.34 SQ MI

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

HYDROGRAPH AT STATION R71
FOR PLAN 1, RATIO = .90

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
13319.	13.25	(CFS)	4061.	1029.	991.	991.
		(INCHES)	1.952	1.978	1.978	1.978
		(AC-FT)	2014.	2040.	2040.	2040.

CUMULATIVE AREA = 19.34 SQ MI

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HYDROGRAPH AT STATION R71
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
14943.	13.25	(CFS)	4640.	1186.	1143.	1143.
		(INCHES)	2.231	2.281	2.281	2.281
		(AC-FT)	2301.	2353.	2353.	2353.

CUMULATIVE AREA = 19.34 SQ MI

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HYDROGRAPH AT STATION R71
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)	MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR

18037.	13.25	(CFS)	5741.	1496.	1441.	1441.
		(INCHES)	2.760	2.877	2.877	2.877
		(AC-FT)	2847.	2968.	2968.	2968.

CUMULATIVE AREA = 19.34 SQ MI

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              **************
              *            *
554 KK        *        I9  *
              *            *
              **************
                        RUNOFF FROM I9

           SUBBASIN RUNOFF DATA

556 BA          SUBBASIN CHARACTERISTICS
                     TAREA          .26  SUBBASIN AREA

                PRECIPITATION DATA

 98 PB                STORM        4.09  BASIN TOTAL PRECIPITATION

 31 PI            INCREMENTAL PRECIPITATION PATTERN
                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                      .00       .00       .00       .00       .00       .00       .00       .01       .00       .01
                      .01       .01       .01       .01       .01       .01       .01       .01       .03       .03
                      .03       .09       .09       .09       .01       .01       .01       .01       .01       .01
                      .01       .01       .01       .01       .01       .01       .00       .00       .00       .00
                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                      .00       .00       .00       .00       .00       .00       .00       .00       .00       .00
                      .00       .00       .00       .00       .00       .00       .00       .00

557 LU          UNIFORM LOSS RATE
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                STRTL        .65  INITIAL LOSS
                CNSTL        .19  UNIFORM LOSS RATE
                RTIMP        .00  PERCENT IMPERVIOUS AREA

D          SCS DIMENSIONLESS UNITGRAPH
                TLAG         .07  LAG

                                                    ***

                                                UNIT HYDROGRAPH
                                            6 END-OF-PERIOD ORDINATES
          957.     755.     215.      62.      19.       6.

   TOTAL RAINFALL =    4.09, TOTAL LOSS =    2.20, TOTAL EXCESS =    1.89

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR      24-HR      72-HR     24.92-HR
   705.     12.00        (CFS)      53.        13.        13.         13.
                       (INCHES)    1.890      1.890      1.890       1.890
                       (AC-FT)      26.        26.        26.         26.

                       CUMULATIVE AREA =     .26 SQ MI


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

                     HYDROGRAPH AT STATION       19
                       FOR PLAN 1, RATIO =  .68

   TOTAL RAINFALL =    2.78, TOTAL LOSS =    1.66, TOTAL EXCESS =    1.12

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR      24-HR      72-HR     24.92-HR
   469.     12.00        (CFS)      31.         8.         8.          8.
                       (INCHES)    1.122      1.122      1.122       1.122
                       (AC-FT)      16.        16.        16.         16.

                       CUMULATIVE AREA =     .26 SQ MI


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

                     HYDROGRAPH AT STATION       19
                       FOR PLAN 1, RATIO =  .90

   TOTAL RAINFALL =    3.68, TOTAL LOSS =    2.04, TOTAL EXCESS =    1.64

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR      24-HR      72-HR     24.92-HR
   632.     12.00        (CFS)      46.        11.        11.         11.
                       (INCHES)    1.642      1.642      1.642       1.642
                       (AC-FT)      23.        23.        23.         23.

                       CUMULATIVE AREA =     .26 SQ MI


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

                     HYDROGRAPH AT STATION       19
                       FOR PLAN 1, RATIO = 1.00
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TOTAL RAINFALL = 4.09, TOTAL LOSS = 2.20, TOTAL EXCESS = 1.89

PEAK FLOW (S)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
705.	12.00	(CFS)	53.	13.	13.	13.
		(INCHES)	1.890	1.890	1.890	1.890
		(AC-FT)	26.	26.	26.	26.

CUMULATIVE AREA = .26 SQ MI

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

HYDROGRAPH AT STATION 19
FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 4.87, TOTAL LOSS = 2.49, TOTAL EXCESS = 2.37

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
845.	12.00	(CFS)	66.	17.	16.	16.
		(INCHES)	2.374	2.374	2.374	2.374
		(AC-FT)	33.	33.	33.	33.

CUMULATIVE AREA = .26 SQ MI

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              **************
              *            *
559 KK        *         I  *
              *            *
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GALLOWAY WASH ABOVE CONFLUENCE WITH CAVE CREEK

561 HC HYDROGRAPH COMBINATION
ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

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

HYDROGRAPH AT STATION I
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
9701.	13.25	(CFS)	2791.	700.	674.	674.
		(INCHES)	1.324	1.328	1.328	1.328
		(AC-FT)	1384.	1388.	1388.	1388.

CUMULATIVE AREA = 19.60 SQ MI

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

HYDROGRAPH AT STATION I
FOR PLAN 1, RATIO = .90

FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
13324.	13.25	(CFS)	4106.	1040.	1002.	1002.
		(INCHES)	1.948	1.973	1.973	1.973
		(AC-FT)	2036.	2063.	2063.	2063.

CUMULATIVE AREA = 19.60 SQ MI

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

HYDROGRAPH AT STATION I
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
14953.	13.25	(CFS)	4692.	1199.	1155.	1155.
		(INCHES)	2.226	2.276	2.276	2.276
		(AC-FT)	2327.	2379.	2379.	2379.

CUMULATIVE AREA = 19.60 SQ MI

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

HYDROGRAPH AT STATION I
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
18054.	13.25	(CFS)	5807.	1513.	1457.	1457.
		(INCHES)	2.754	2.871	2.871	2.871
		(AC-FT)	2879.	3001.	3001.	3001.

CUMULATIVE AREA = 19.60 SQ MI

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*            *
*      E15   *
*            *
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562 KK

RUNOFF FROM E15

SUBBASIN RUNOFF DATA

SUBBASIN CHARACTERISTICS
TAREA .21 SUBBASIN AREA

PRECIPITATION DATA

98 PB STORM 4.09 BASIN TOTAL PRECIPITATION

31 PI INCREMENTAL PRECIPITATION PATTERN

.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.01	.00	.01
.01	.01	.01	.01	.01	.01	.01	.01	.03	.03
.03	.09	.09	.09	.01	.01	.01	.01	.01	.01
.01	.01	.01	.01	.01	.01	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
.00	.00	.00	.00	.00	.00	.00	.00		

565 LU UNIFORM LOSS RATE

STRTL .65 INITIAL LOSS
CNSTL .07 UNIFORM LOSS RATE
RTIMP .00 PERCENT IMPERVIOUS AREA

566 UD SCS DIMENSIONLESS UNITGRAPH

TLAG .09 LAG

***

UNIT HYDROGRAPH
7 END-OF-PERIOD ORDINATES

549. 681. 255. 93. 33. 12. 4.

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.57, TOTAL EXCESS = 2.52

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
569.	12.00	(CFS)	56.	14.	14.	14.
		(INCHES)	2.469	2.518	2.518	2.518
		(AC-FT)	28.	28.	28.	28.

CUMULATIVE AREA = .21 SQ MI

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

HYDROGRAPH AT STATION E15
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 2.78, TOTAL LOSS = 1.33, TOTAL EXCESS = 1.45

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
384.	12.00	(CFS)	33.	8.	8.	8.
		(INCHES)	1.450	1.450	1.450	1.450
		(AC-FT)	16.	16.	16.	16.

CUMULATIVE AREA = .21 SQ MI

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

HYDROGRAPH AT STATION E15
FOR PLAN 1, RATIO = .90

TOTAL RAINFALL = 3.68, TOTAL LOSS = 1.50, TOTAL EXCESS = 2.18

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
511.	12.00	(CFS)	49.	12.	12.	12.
		(INCHES)	2.160	2.178	2.178	2.178
		(AC-FT)	24.	24.	24.	24.

CUMULATIVE AREA = .21 SQ MI

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

HYDROGRAPH AT STATION E15
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 4.09, TOTAL LOSS = 1.57, TOTAL EXCESS = 2.52

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
569.	12.00	(CFS)	56.	14.	14.	14.
		(INCHES)	2.469	2.518	2.518	2.518
		(AC-FT)	28.	28.	28.	28.

CUMULATIVE AREA = .21 SQ MI

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

HYDROGRAPH AT STATION E15
FOR PLAN 1, RATIO = 1.19

TOTAL RAINFALL = 4.87, TOTAL LOSS = 1.68, TOTAL EXCESS = 3.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
9.	12.00	(CFS)	68.	18.	17.	17.
		(INCHES)	3.031	3.188	3.188	3.188
		(AC-FT)	34.	36.	36.	36.

CUMULATIVE AREA = .21 SQ MI

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

          **************
          *            *
567 KK    *        72  *
          *            *
          **************
                    HYDROGRAPH COMBINATION, ALL BASINS ABOVE 72;
                    BELOW CONFLUENCE OF GALLOWAY WASH/CAVE CREEK

570 HC          HYDROGRAPH COMBINATION
                     ICOMP          3  NUMBER OF HYDROGRAPHS TO COMBINE

                                                          ***

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

                      HYDROGRAPH AT STATION       72
                        FOR PLAN 1, RATIO =  .68

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
  25541.     13.00       (CFS)    15006.       3867.       3725.       3725.
                       (INCHES)    1.277       1.317       1.317       1.317
                        (AC-FT)    7441.       7670.       7670.       7670.

                      CUMULATIVE AREA =  109.23 SQ MI

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

                      HYDROGRAPH AT STATION       72
                        FOR PLAN 1, RATIO =  .90

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
  35978.     13.00       (CFS)    22103.       5781.       5568.       5568.
                       (INCHES)    1.881       1.968       1.968       1.968
                        (AC-FT)   10960.      11466.      11466.      11466.

                      CUMULATIVE AREA =  109.23 SQ MI

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

                      HYDROGRAPH AT STATION       72
                        FOR PLAN 1, RATIO = 1.00

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
     [illegible]3.     13.00       (CFS)    25311.       6672.       6427.       6427.
                       (INCHES)    2.154       2.272       2.272       2.272
                        (AC-FT)   12551.      13234.      13234.      13234.

                      CUMULATIVE AREA =  109.23 SQ MI
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HYDROGRAPH AT STATION 72
FOR PLAN 1, RATIO = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
49685.	13.00	(CFS)	31457.	8424.	8114.	8114.
		(INCHES)	2.678	2.868	2.868	2.868
		(AC-FT)	15599.	16709.	16709.	16709.

CUMULATIVE AREA = 109.23 SQ MI

PEAK FLOW AND STAGE (END-OF-PERIOD) SUMMARY FOR MULTIPLE PLAN-RATIO ECONOMIC COMPUTATIONS
FLOWS IN CUBIC FEET PER SECOND, AREA IN SQUARE MILES
TIME TO PEAK IN HOURS

					RATIOS APPLIED TO PRECIPITATION			
OPERATION	STATION	AREA	PLAN		RATIO 1	RATIO 2	RATIO 3	RATIO 4
					.68	.90	1.00	1.19
HYDROGRAPH AT	A1	15.75	1	FLOW	5795.	8725.	9918.	12101.
				TIME	13.33	13.33	13.33	13.33
HYDROGRAPH AT	A2	10.69	1	FLOW	3876.	5425.	6123.	7452.
				TIME	13.50	13.50	13.50	13.50
HYDROGRAPH AT	A3	4.75	1	FLOW	1840.	2568.	2896.	3520.
				TIME	13.33	13.33	13.33	13.33
3 COMBINED AT	1	31.19	1	FLOW	11476.	16650.	18860.	22981.
				TIME	13.42	13.33	13.33	13.33
ROUTED TO	R1	31.19	1	FLOW	10721.	15617.	17714.	21618.
				TIME	14.25	14.17	14.17	14.17
HYDROGRAPH AT	A4	10.47	1	FLOW	4200.	5852.	6597.	8014.
				TIME	13.33	13.33	13.33	13.33
HY[illegible]RAPH AT	A5	3.43	1	FLOW	1540.	2137.	2405.	2916.
				TIME	13.08	13.08	13.08	13.08
ROUTED TO	R2	3.43	1	FLOW	1517.	2106.	2371.	2875.
				TIME	13.25	13.25	13.25	13.25
HYDROGRAPH AT	A6	3.50	1	FLOW	1561.	2165.	2437.	2956.
				TIME	13.17	13.17	13.17	13.17
4 COMBINED AT	3	48.59	1	FLOW	15455.	22440.	25476.	31144.
				TIME	13.92	13.92	13.92	13.92
ROUTED TO	R3	48.59	1	FLOW	15003.	21809.	24775.	30311.
				TIME	14.67	14.67	14.67	14.67
HYDROGRAPH AT	A7	11.62	1	FLOW	4955.	6888.	7758.	9415.
				TIME	13.17	13.17	13.17	13.17
2 COMBINED AT	10	60.21	1	FLOW	16613.	24246.	27603.	33871.
				TIME	14.50	14.50	14.50	14.50
ROUTED TO	R10	60.21	1	FLOW	16605.	24234.	27588.	33851.
				TIME	14.58	14.58	14.58	14.58
HYDROGRAPH AT	E1	.51	1	FLOW	639.	863.	964.	1156.
				TIME	12.17	12.17	12.17	12.17
[illegible]OGRAPH AT	B3	1.33	1	FLOW	816.	1139.	1276.	1533.
				TIME	12.67	12.67	12.67	12.67
HYDROGRAPH AT	B2	.31	1	FLOW	463.	619.	690.	824.

				TIME	12.08	12.08	12.08	12.08
2 COMBINED AT	14A	1.64	1	FLOW	874.	1221.	1369.	1646.
				TIME	12.67	12.67	12.67	12.67
ROUTED TO	R14A	1.64	1	FLOW	867.	1213.	1360.	1635.
				TIME	12.75	12.75	12.75	12.75
HYDROGRAPH AT	B4	.56	1	FLOW	782.	1047.	1167.	1394.
				TIME	12.08	12.08	12.08	12.08
HYDROGRAPH AT	B1	6.11	1	FLOW	5041.	6901.	7708.	9233.
				TIME	12.42	12.42	12.42	12.42
3 COMBINED AT	12A	8.31	1	FLOW	6082.	8384.	9373.	11238.
				TIME	12.42	12.42	12.42	12.42
ROUTED TO	R12A	8.31	1	FLOW	6087.	8409.	9401.	11272.
				TIME	12.42	12.42	12.42	12.42
HYDROGRAPH AT	B5	.49	1	FLOW	684.	916.	1021.	1220.
				TIME	12.08	12.08	12.08	12.08
HYDROGRAPH AT	B6	.82	1	FLOW	873.	1179.	1315.	1572.
				TIME	12.25	12.25	12.25	12.25
3 COMBINED AT	11A	9.62	1	FLOW	7070.	9785.	10940.	13117.
				TIME	12.33	12.33	12.33	12.33
ROUTED TO	R11A	9.62	1	FLOW	6895.	9531.	10657.	12781.
				TIME	12.50	12.50	12.50	12.50
HYDROGRAPH AT	B7	.44	1	FLOW	555.	745.	831.	993.
				TIME	12.17	12.17	12.17	12.17
2 COMBINED AT	B	10.06	1	FLOW	7105.	9819.	10979.	13168.
				TIME	12.50	12.50	12.50	12.50
3 COMBINED AT	23	70.78	1	FLOW	16970.	24887.	28373.	34898.
				TIME	14.58	14.58	14.50	14.50
ROUTED TO	R23	70.78	1	FLOW	16939.	24843.	28325.	34835.
				TIME	14.67	14.67	14.67	14.67
HYDROGRAPH AT	E2	.50	1	FLOW	631.	842.	937.	1119.
				TIME	12.17	12.17	12.17	12.17
HYDROGRAPH AT	E3	.42	1	FLOW	340.	458.	511.	611.
				TIME	12.42	12.42	12.42	12.42
3 COMBINED AT	24	71.70	1	FLOW	16966.	24890.	28381.	34909.
				TIME	14.67	14.67	14.67	14.67
ROUTED TO	R24	71.70	1	FLOW	16869.	24749.	28224.	34721.
				TIME	14.83	14.83	14.83	14.83
HYDROGRAPH AT	E4	2.05	1	FLOW	2782.	3721.	4147.	4958.
				TIME	12.08	12.08	12.08	12.08
HYDROGRAPH AT	E5	.19	1	FLOW	307.	410.	456.	545.

				TIME	12.00	12.00	12.00	12.00
3 COMBINED AT	25	73.94	1	FLOW	16870.	24778.	28271.	34802.
				TIME	14.83	14.83	14.83	14.83
[illegible]OGRAPH AT	E6A	1.00	1	FLOW	1308.	1744.	1942.	2318.
				TIME	12.17	12.17	12.17	12.17
HYDROGRAPH AT	E6	.19	1	FLOW	294.	392.	436.	521.
				TIME	12.08	12.08	12.08	12.08
3 COMBINED AT	26	75.13	1	FLOW	16888.	24817.	28319.	34868.
				TIME	14.83	14.83	14.83	14.83
HYDROGRAPH AT	E7	.37	1	FLOW	455.	608.	678.	810.
				TIME	12.17	12.17	12.17	12.17
HYDROGRAPH AT	E8	.36	1	FLOW	447.	599.	668.	799.
				TIME	12.17	12.17	12.17	12.17
3 COMBINED AT	27	75.86	1	FLOW	16890.	24831.	28338.	34901.
				TIME	14.83	14.83	14.83	14.75
ROUTED TO	R27	75.86	1	FLOW	16856.	24782.	28286.	34838.
				TIME	14.92	14.92	14.92	14.92
HYDROGRAPH AT	E10	2.16	1	FLOW	1670.	2259.	2525.	3028.
				TIME	12.50	12.50	12.50	12.50
HY[illegible]RAPH AT	E9	.42	1	FLOW	437.	587.	654.	783.
				TIME	12.25	12.25	12.25	12.25
3 COMBINED AT	30	78.44	1	FLOW	16884.	24863.	28392.	34992.
				TIME	14.92	14.92	14.92	14.92
ROUTED TO	R30	78.44	1	FLOW	16827.	24781.	28302.	34887.
				TIME	15.08	15.08	15.08	15.08
HYDROGRAPH AT	E11	.47	1	FLOW	569.	767.	857.	1028.
				TIME	12.17	12.17	12.17	12.17
HYDROGRAPH AT	E12	.43	1	FLOW	407.	546.	609.	729.
				TIME	12.33	12.33	12.33	12.33
HYDROGRAPH AT	D1	.56	1	FLOW	740.	989.	1103.	1319.
				TIME	12.08	12.08	12.08	12.08
HYDROGRAPH AT	D2	.32	1	FLOW	409.	547.	610.	730.
				TIME	12.17	12.17	12.17	12.17
2 COMBINED AT	16	.88	1	FLOW	1138.	1524.	1699.	2031.
				TIME	12.08	12.08	12.08	12.08
ROUTED TO	R16	.88	1	FLOW	1070.	1433.	1598.	1911.
				TIME	12.25	12.25	12.25	12.25
[illegible]OGRAPH AT	F2C	.53	1	FLOW	647.	863.	962.	1148.
				TIME	12.17	12.17	12.17	12.17
2 COMBINED AT	17A	1.41	1	FLOW	1684.	2252.	2511.	3001.

				TIME	12.17	12.17	12.17	12.17
HYDROGRAPH AT	F2D	.23	1	FLOW	194.	262.	293.	352.
				TIME	12.42	12.42	12.42	12.42
COMBINED AT	17	1.64	1	FLOW	1853.	2483.	2768.	3310.
				TIME	12.25	12.25	12.25	12.25
ROUTED TO	R17	1.64	1	FLOW	1661.	2229.	2486.	2975.
				TIME	12.33	12.33	12.33	12.33
HYDROGRAPH AT	F2F	.17	1	FLOW	240.	320.	356.	425.
				TIME	12.08	12.08	12.08	12.08
2 COMBINED AT	19A	1.81	1	FLOW	1784.	2395.	2671.	3196.
				TIME	12.33	12.33	12.33	12.33
HYDROGRAPH AT	F2A	.29	1	FLOW	354.	472.	526.	628.
				TIME	12.17	12.17	12.17	12.17
HYDROGRAPH AT	F2B	.43	1	FLOW	525.	700.	780.	931.
				TIME	12.17	12.17	12.17	12.17
2 COMBINED AT	18	.72	1	FLOW	879.	1173.	1306.	1560.
				TIME	12.17	12.17	12.17	12.17
ROUTED TO	R18	.72	1	FLOW	809.	1081.	1204.	1438.
				TIME	12.25	12.25	12.25	12.25
HYDROGRAPH AT	F2E	.23	1	FLOW	276.	368.	410.	489.
				TIME	12.17	12.17	12.17	12.17
2 COMBINED AT	19B	.95	1	FLOW	1072.	1432.	1595.	1905.
				TIME	12.25	12.25	12.25	12.25
2 COMBINED AT	19	2.76	1	FLOW	2808.	3762.	4195.	5017.
				TIME	12.33	12.33	12.33	12.33
ROUTED TO	R19	2.76	1	FLOW	2675.	3587.	4000.	4784.
				TIME	12.50	12.50	12.50	12.50
HYDROGRAPH AT	F2	.33	1	FLOW	380.	510.	569.	681.
				TIME	12.17	12.17	12.17	12.17
2 COMBINED AT	31A	3.09	1	FLOW	2893.	3884.	4332.	5183.
				TIME	12.42	12.42	12.42	12.42
HYDROGRAPH AT	F1	1.65	1	FLOW	916.	1254.	1404.	1687.
				TIME	12.83	12.83	12.83	12.83
2 COMBINED AT	31	4.74	1	FLOW	3610.	4884.	5454.	6535.
				TIME	12.50	12.50	12.50	12.50
ROUTED TO	R31	4.74	1	FLOW	3540.	4793.	5353.	6416.
				TIME	12.58	12.58	12.58	12.58
HYDROGRAPH AT	F3	.89	1	FLOW	387.	540.	608.	739.
				TIME	13.08	13.08	13.08	13.08
HYDROGRAPH AT	F4	.16	1	FLOW	169.	228.	255.	307.

				TIME	12.25	12.25	12.25	12.25
3 COMBINED AT	F	5.79	1	FLOW	3891.	5291.	5916.	7104.
				TIME	12.58	12.58	12.58	12.58
[illegible]OMBINED AT	33	85.13	1	FLOW	17014.	25119.	28713.	35439.
				TIME	15.08	15.08	15.08	15.08
HYDROGRAPH AT	E13	.04	1	FLOW	77.	102.	114.	136.
				TIME	12.00	12.00	12.00	12.00
HYDROGRAPH AT	E14	.86	1	FLOW	956.	1278.	1423.	1700.
				TIME	12.25	12.25	12.25	12.25
HYDROGRAPH AT	G2A	.61	1	FLOW	700.	944.	1055.	1266.
				TIME	12.17	12.17	12.17	12.17
HYDROGRAPH AT	G2B	.15	1	FLOW	134.	182.	203.	245.
				TIME	12.33	12.33	12.33	12.33
2 COMBINED AT	36	.76	1	FLOW	812.	1098.	1227.	1474.
				TIME	12.17	12.17	12.17	12.17
HYDROGRAPH AT	G1	.61	1	FLOW	937.	1251.	1393.	1664.
				TIME	12.08	12.08	12.08	12.08
ROUTED TO	R34	.61	1	FLOW	691.	925.	1031.	1233.
				TIME	12.42	12.42	12.42	12.42
HYDROGRAPH AT	G2	1.17	1	FLOW	1096.	1486.	1662.	1998.
				TIME	12.25	12.25	12.25	12.25
2 COMBINED AT	35A	1.78	1	FLOW	1706.	2304.	2575.	3091.
				TIME	12.33	12.33	12.33	12.33
2 COMBINED AT	35	2.54	1	FLOW	2401.	3246.	3630.	4358.
				TIME	12.33	12.33	12.33	12.33
ROUTED TO	R35	2.54	1	FLOW	2180.	2954.	3306.	3973.
				TIME	12.67	12.67	12.67	12.67
HYDROGRAPH AT	G3	.85	1	FLOW	680.	939.	1057.	1281.
				TIME	12.33	12.33	12.33	12.33
2 COMBINED AT	G	3.39	1	FLOW	2630.	3591.	4027.	4855.
				TIME	12.67	12.67	12.67	12.67
4 COMBINED AT	39	89.42	1	FLOW	18190.	25803.	29144.	35623.
				TIME	12.67	12.67	12.67	12.67
HYDROGRAPH AT	I1	4.98	1	FLOW	4108.	5537.	6177.	7394.
				TIME	12.42	12.42	12.42	12.42
HYDROGRAPH AT	I2	.62	1	FLOW	576.	775.	864.	1035.
				TIME	12.33	12.33	12.33	12.33
[illegible]OMBINED AT	59	5.60	1	FLOW	4662.	6282.	7009.	8389.
				TIME	12.42	12.42	12.42	12.42
ROUTED TO	R59	5.60	1	FLOW	4120.	5565.	6212.	7441.

Wrong
Area measured incorrectly

				TIME	13.00	13.00	13.00	13.00
HYDROGRAPH AT	I3	1.07	1	FLOW	995.	1352.	1513.	1821.
				TIME	12.25	12.25	12.25	12.25
[illegible]OMBINED AT	63	6.67	1	FLOW	4371.	5937.	6637.	7967.
				TIME	12.92	12.92	12.92	12.92
HYDROGRAPH AT	H1E	.13	1	FLOW	218.	290.	323.	385.
				TIME	12.00	12.00	12.00	12.00
HYDROGRAPH AT	H1F	.12	1	FLOW	195.	260.	290.	346.
				TIME	12.00	12.00	12.00	12.00
2 COMBINED AT	53	.25	1	FLOW	413.	550.	613.	731.
				TIME	12.00	12.00	12.00	12.00
ROUTED TO	R53	.25	1	FLOW	367.	489.	545.	650.
				TIME	12.08	12.08	12.08	12.08
HYDROGRAPH AT	H1	.24	1	FLOW	402.	536.	596.	711.
				TIME	12.00	12.00	12.00	12.00
2 COMBINED AT	50A	.49	1	FLOW	739.	985.	1096.	1308.
				TIME	12.08	12.08	12.08	12.08
HYDROGRAPH AT	H1C	.25	1	FLOW	390.	519.	578.	689.
				TIME	12.08	12.08	12.08	12.08
2 [illegible]MBINED AT	50	.74	1	FLOW	1129.	1504.	1674.	1997.
				TIME	12.08	12.08	12.08	12.08
HYDROGRAPH AT	H1D	.09	1	FLOW	143.	192.	214.	256.
				TIME	12.00	12.00	12.00	12.00
2 COMBINED AT	51B	.83	1	FLOW	1266.	1687.	1879.	2243.
				TIME	12.08	12.08	12.08	12.08
HYDROGRAPH AT	H1A	3.48	1	FLOW	3388.	4537.	5057.	6043.
				TIME	12.33	12.33	12.33	12.33
ROUTED TO	R49	3.48	1	FLOW	3028.	4064.	4531.	5417.
				TIME	12.67	12.67	12.67	12.67
HYDROGRAPH AT	H1B	.32	1	FLOW	446.	596.	665.	794.
				TIME	12.08	12.08	12.08	12.08
2 COMBINED AT	51A	3.80	1	FLOW	3097.	4161.	4640.	5551.
				TIME	12.67	12.67	12.67	12.67
2 COMBINED AT	51	4.63	1	FLOW	3240.	4362.	4868.	5829.
				TIME	12.67	12.67	12.67	12.67
ROUTED TO	R51	4.63	1	FLOW	3011.	4065.	4538.	5436.
				TIME	13.08	13.00	13.00	13.00
[illegible]OGRAPH AT	H	.68	1	FLOW	313.	442.	502.	614.
				TIME	12.83	12.83	12.83	12.83
2 COMBINED AT	71A	5.31	1	FLOW	3313.	4496.	5027.	6036.

				TIME	13.00	13.00	13.00	13.00
HYDROGRAPH AT	H2	.21	1	FLOW	182.	248.	279.	336.
				TIME	12.33	12.33	12.33	12.33
[illegible]GRAPH AT	H3	.35	1	FLOW	362.	490.	548.	658.
				TIME	12.25	12.25	12.25	12.25
HYDROGRAPH AT	I5	4.98	1	FLOW	1963.	2755.	3113.	3797.
				TIME	13.17	13.17	13.17	13.17
ROUTED TO	R52	4.98	1	FLOW	1934.	2717.	3071.	3747.
				TIME	13.50	13.50	13.50	13.50
HYDROGRAPH AT	I6	1.82	1	FLOW	718.	1007.	1138.	1388.
				TIME	13.17	13.17	13.17	13.17
2 COMBINED AT	71B	6.80	1	FLOW	2613.	3673.	4152.	5067.
				TIME	13.42	13.42	13.42	13.42
5 COMBINED AT	71	19.34	1	FLOW	9944.	13641.	15301.	18462.
				TIME	13.00	13.00	13.00	13.00
ROUTED TO	R71	19.34	1	FLOW	9701.	13319.	14943.	18037.
				TIME	13.25	13.25	13.25	13.25
HYDROGRAPH AT	I9	.26	1	FLOW	469.	632.	705.	845.
				TIME	12.00	12.00	12.00	12.00
2 [illegible]MBINED AT	I	19.60	1	FLOW	9701.	13324.	14953.	18054.
				TIME	13.25	13.25	13.25	13.25
HYDROGRAPH AT	E15	.21	1	FLOW	384.	511.	569.	679.
				TIME	12.00	12.00	12.00	12.00
3 COMBINED AT	72	109.23	1	FLOW	25541.	35978.	40643.	49685.
				TIME	13.00	13.00	13.00	13.00

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

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****************************************
*                                      *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *
*          FEBRUARY 1981               *
*          REVISED 01 JUN 88           *
*                                      *
* RUN DATE  04/02/1990  TIME  10:40:32 *
*                                      *
****************************************
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****************************************
*                                      *
*    U.S. ARMY CORPS OF ENGINEERS      *
*  THE HYDROLOGIC ENGINEERING CENTER   *
*         609 SECOND STREET            *
*       DAVIS, CALIFORNIA 95616        *
*          (916) 551-1748              *
*                                      *
****************************************
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CVCRK43R.OUT

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

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

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

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

  1           ID   *** CVCRK43R.DAT ***
  2           ID   CAVE CREEK/CAREFREE FIS
  3           ID   CH2M HILL PROJECT # LA027815.H1
  4           ID   MCFCD PROJECT # 88-53
  5           ID   100 YEAR FLOW CALCULATIONS FOR CAVE CREEK TRIBUTARIES
  6           ID   FROM COTTONWOOD CREEK TO GALLOWAY WASH
  7           ID   CH2M HILL  RUN 4.3R
  8           ID   ORIGINAL MODEL DEVELOPED BY FCDMC. MODIFIED BY CH2M HILL.
  9           ID   FINAL REVISIONS BY FCDMC.
 10           ID   INITIAL AND UNIFORM LOSS METHOD (LOSSES BASED ON HYDRO SOIL GROUP)
 11           ID   TRIBUTARY SUBBASINS 100-YR 2 HR RAINFALL = 2.83 IN.
 12           ID   NO AERIAL REDUCTION
 13           ID   TIME OF CONCENTRATION ESTIMATED BY CH2M HILL
 14           ID   MUSKINGUM X BASED ON CHANNEL VELOCITIES
 15           ID
 16           ID
 17           ID
 18           ID
 19           ID
 20           ID
 21           IT      5                    300
 22           IO      3       0       0
 23           JR   PREC    0.68    0.89     1.0     1.2

 24           KK      B3
 25           KM   BRGIN COTTONWOOD CREEK
 26           KM   RUNOFF FROM B3, THE RAINFALL DISTRIBUTION IS SCS TYPE II
 27           IN      15
 28           PB    2.83
 29           PC    0.00   0.039    .087     .28    .791    .872    .924    .967   1.000   1.000
 30           BA    1.33       0       0
 31           LU     .75     .08       0
 32           UD    0.82

 33           KK      B2
 34           KM   RUNOFF FROM B2
 35           BA    0.31
 36           LU     .75     .08       0
 37           UD    0.19

 38           KK     14A
 39           KM   COMBINING HYDROGRAPHS
 40           HC       2

 41           KK    R14A
 42           KM   ROUTING 14A TO 12A
 43           RM       1    0.10     0.2

 44           KK      B4
 45           KM   RUNOFF FROM B4
 46           BA    0.56
 47           LU     .75     .08       0
 48           UD    0.22
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  49          KK      B1
  50          KM   RUNOFF FROM B1
  51          BA    6.11
  52          LU     .75     .08       0
  53          UD    0.55

  54          KK     12A
  55          KM   COMBINING B4, B3+2 AND B1
  56          HC       3

  57          KK    R12A
  58          KM   ROUTING 12A TO 11A
  59          RM       2    0.04     0.2

  60          KK      B5
  61          KM   RUNOFF FROM B5
  62          BA    0.49
  63          LU     .75     .08       0
  64          UD    0.22

  65          KK      B6
  66          KM   RUNOFF FROM B6
  67          BA    0.82
  68          LU     .75     .08       0
  69          UD    0.37

  70          KK     11A
  71          KM   COMBINING B5,B6,ALL OTHERS ON B
  72          HC       3

  73          KK    R11A
  74          KM   ROUTING 11A TO B
  75          RM       1    0.12     0.2

  76          KK      B7
  77          KM   RUNOFF FROM B7
  78          BA    0.44
  79          LU     .75    .085       0
  80          UD    0.27

  81          KK       B
  82          KM   COTTONWOOD CREEK, ABOVE CONFLUENCE WITH CAVE CREEK
  83          HC       2

  84          KK      D1
  85          KM   FLEMMING WASH
  86          KM   RUNOFF FROM D1
  87          BA    0.56
  88          LU     .65     .09       0
  89          UD    0.24
```

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

  90          KK      D2
  91          KM   BEGIN WILLOW SPRINGS WASH
  92          KM   RUNOFF FROM D2
  93          BA    0.32
  94          LU     .65     .09       0
  95          UD    0.26

  96          KK      16
  97          KM   HYDROGRAPH COMBINATION, D1 AND D2
  98          HC       2

  99          KK     R16
 100          KM   ROUTING 16 TO 17
 101          RM       1    0.11     0.2

 102          KK     F2C
 103          KM   RUNOFF FROM F2C
 104          BA    0.53
 105          LU     .65     .06       0
 106          UD    0.30

 107          KK     17A
 108          KM   HYDROGRAPH COMBINATION, FLOW FROM 16 AND F2C; ABOVE CONFLUENCE
 109          HC       2

 110          KK     F2D
 111          KM   RUNOFF FROM F2D
 112          BA    0.23
 113          LU     .65     .10       0
 114          UD    0.53

 115          KK      17
 116          KM   HYDROGRAPH COMBINATION, FLOW FROM F2C, 16 AND F2D; BELOW CONFLUENCE
 117          HC       2

 118          KK     R17
 119          KM   ROUTING 17 TO 19A
 120          RM       1    0.17     0.2

 121          KK     F2F
 122          KM   RUNOFF FROM F2F
 123          BA    0.17
 124          LU     .65     .06       0
 125          UD    0.22

 126          KK     19A
 127          KM   HYDROGRAPH COMBINATION, FLOW FROM 17 AND F2F; ABOVE CONFLUENCE
 128          HC       2
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

  129         KK     F2A
  130         KM   RUNOFF FROM F2A
  131         BA    0.29
  132         LU     .65     .06       0
  133         UD    0.30

  134         KK     F2B
  135         KM   RUNOFF FROM F2B
  136         BA    0.43
  137         LU     .65     .06       0
  138         UD    0.30

  139         KK      18
  140         KM   HYDROGRAPH COMBINATION, FLOW FROM F2A AND F2B
  141         HC       2

  142         KK     R18
  143         KM   ROUTING 18 TO 19B
  144         RM       1    0.12     0.2

  145         KK     F2E
  146         KM   RUNOFF FROM F2E
  147         BA    0.23
  148         LU     .65     .06       0
  149         UD    0.31

  150         KK     19B
  151         KM   HYDROGRAPH COMBINATION, FLOW FROM 18 AND F2E;
  152         KM   ABOVE CONFLUENCE WITH WILLOW SPRINGS WASH
  153         HC       2

  154         KK      19
  155         KM   HYDROGRAPH COMBINATION, FLOW FROM 17, 18, 19A AND 19B; BELOW CONFLUENCE
  156         HC       2

  157         KK     R19
  158         KM   ROUTING 19 TO 31A
  159         RM       2    0.16     0.2

  160         KK      F2
  161         KM   RUNOFF FROM F2
  162         BA    0.33
  163         LU     .65    .095       0
  164         UD    0.32

  165         KK     31A
  166         KM   HYDROGRAPH COMBINATION, FLOW FROM 19 AND F2; ABOVE CONFLUENCE
  167         HC       2
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LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

 168        KK     F1A
 169        KM   RUNOFF FROM WILLOW SPRINGS TRIBUTARY 1A
 170        BA    0.27
 171        LU    0.65    0.10       0
 172        UD    0.60

 173        KK     F1B
 174        KM   RUNOFF FROM F1B
 175        BA   0.565
 176        LU    0.65    0.08       0
 177        UD    0.71

 178        KK      32
 179        KM   HYDROGRAPH COMBINATION, FLOW FROM F1A AND F1B
 180        HC       2

 181        KK     R32
 182        KM   ROUTING FROM 32 TO 31
 183        RM       6     .61     0.2

 184        KK      F1
 185        KM   RUNOFF FROM F1
 186        BA    0.82
 187        LU     .65     .08       0
 188        UD    0.70

 189        KK     31B
 190        KM   HYDROGRAPH COMBINATION, FLOW FROM F1A,F1B, AND F1
 191        HC       2

 192        KK      31
 193        KM   WILLOW SPRINGS WASH 0.8 MILES ABOVE CONFLUENCE WITH CAVE CK.
 194        KM   HYDROGRAPH COMBINATION, FLOW FROM F1, F2 AND 19; BELOW CONFLUENCE
 195        HC       2

 196        KK     R31
 197        KM   ROUTING 31 TO F
 198        RM       2    0.12     0.2

 199        KK      F3
 200        KM   RUNOFF FROM F3
 201        BA    0.89
 202        LU     .65     .14       0
 203        UD    1.21

 204        KK      F4
 205        KM   RUNOFF FROM F4
 206        BA    0.16
 207        LU     .65     .15       0
 208        UD    0.35
```

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

 209          KK       F
 210          KM   WILLOW SPRINGS WASH ABOVE CONFLUENCE WITH CAVE CREEK
 211          HC       3

 212          KK     G2A
 213          KM   BEGIN OCOTILLO
 214          KM   RUNOFF FROM G2A
 215          BA    0.61
 216          LU     .65     .14       0
 217          UD    0.31

 218          KK     G2B
 219          KM   RUNOFF FROM G2B
 220          BA    0.15
 221          LU     .65     .14       0
 222          UD    0.47

 223          KK      36
 224          KM   HYDROGRAPH COMBINATION, FLOW FROM G2A AND G2B
 225          HC       2

 226          KK      G1
 227          KM   RUNOFF FROM G1
 228          BA    0.61
 229          LU     .65     .08       0
 230          UD    0.17

 231          KK     R34
 232          KM   ROUTING FROM 34 TO 35
 233          RM       4     .43      .2

 234          KK      G2
 235          KM   RUNOFF FROM G2
 236          BA    1.17
 237          LU     .65     .14       0
 238          UD    0.43

 239          KK     35A
 240          KM   HYDROGRAPH COMBINATION, FLOW FROM G1 AND G2; ABOVE CONFLUENCE
 241          HC       2

 242          KK      35
 243          KM   HYDROGRAPH COMBINATION, FLOW FROM G1, G2 AND 36; BELOW CONFLUENCE
 244          HC       2

 245          KK     R35
 246          KM   ROUTING 35 TO G
 247          RM       4    0.37     0.2
```

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

 248          KK      G3
 249          KM   RUNOFF FROM G3
 250          BA    0.85
 251          LU     .65     .23       0
 252          UD    0.50

 253          KK       G
 254          KM   HYDROGRAPH COMBINATION, FLOW FROM G3 AND 35;
 255          KM   ABOVE CONFLUENCE WITH CAVE CREEK
 256          HC       2

 257          KK      I1
 258          KM   BEGIN NORTH GALLOWAY WASH
 259          KM   RUNOFF FROM I1
 260          BA    4.98
 261          LU     .65     .07       0
 262          UD    0.57

 263          KK      I2
 264          KM   RUNOFF FROM I2
 265          BA    0.62
 266          LU     .65     .08       0
 267          UD    0.47

 268          KK      59
 269          KM   HYDROGRAPH COMBINATION, FLOW FROM I1 AND I2
 270          HC       2

 271          KK     R59
 272          KM   ROUTING 59 TO 63
 273          RM       5    0.54     0.2

 274          KK      I3
 275          KM   RUNOFF FROM I3
 276          BA    1.07
 277          LU     .65     .15       0
 278          UD    0.43

 279          KK      63
 280          KM   NORTH GALLOWAY WASH ABOVE CONFLUENCE WITH ROWE WASH
 281          HC       2

 282          KK     H1E
 283          KM   BEGIN ROWE WASH
 284          KM   RUNOFF FROM H1E
 285          BA    0.13
 286          LU     .65     .06       0
 287          UD    0.13
```

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

 288          KK     H1F
 289          KM   RUNOFF FROM H1F
 290          BA    0.12
 291          LU     .65     .06       0
 292          UD    0.14

 293          KK      53
 294          KM   HYDROGRAPH COMBINATION, FLOW FROM H1E AND H1F
 295          HC       2

 296          KK     R53
 297          KM   ROUTING 53 TO 50
 298          RM       1    0.11     0.2

 299          KK      H1
 300          KM   RUNOFF FROM H1
 301          BA    0.24
 302          LU     .65     .06       0
 303          UD    0.13

 304          KK     50A
 305          KM   HYDROGRAPH COMBINATION, FLOW FROM 53 AND H1; ABOVE CONFLUENCE
 306          HC       2

 307          KK     H1C
 308          KM   RUNOFF FROM H1C
 309          BA    0.25
 310          LU     .65     .06       0
 311          UD    0.16

 312          KK      50
 313          KM   HYDROGRAPH COMBINATION, FLOW FROM 53, H1 AND H1C; BELOW CONFLUENCE
 314          HC       2

 315          KK     H1D
 316          KM   RUNOFF FROM H1D
 317          BA    0.09
 318          LU     .65     .12       0
 319          UD    0.14

 320          KK     51B
 321          KM   HYDROGRAPH COMBINATION, FLOW FROM 50 AND H1D; ABOVE CONFLUENCE
 322          HC       2

 323          KK     H1A
 324          KM   RUNOFF FROM H1A
 325          KM   BEGIN GRAPEVINE WASH
 326          BA    3.48
 327          LU     .65     .06       0
 328          UD    0.44
```

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

 329          KK     R49
 330          KM   ROUTING 49 TO 51A
 331          RM       3    0.35     0.2

 332          KK     H1B
 333          KM   RUNOFF FROM H1B
 334          BA    0.32
 335          LU     .65     .09       0
 336          UD    0.22

 337          KK     51A
 338          KM   HYDROGRAPH COMBINATION, FLOW FROM H1A AND H1B;
 339          KM   ABOVE CONFLUENCE WITH ROWE WASH
 340          HC       2

 341          KK      51
 342          KM   HYDROGRAPH COMBINATION, FLOW FROM H1A, H1B, H1D AND 50;
 343          KM   BELOW CONFLUENCE OF ROWE/GRAPEVINE WASH
 344          HC       2

 345          KK     R51
 346          KM   ROUTING 51 TO 71A
 347          RM       4    0.44     0.2

 348          KK       H
 349          KM   RUNOFF FROM H
 350          BA    0.68
 351          LU     .65     .23       0
 352          UD    1.00

 353          KK     71A
 354          KM   HYDROGRAPH COMBINATION, FLOW FROM 51 AND H; ABOVE CONFLUENCE
 355          HC       2

 356          KK      H2
 357          KM   RUNOFF FROM H2
 358          BA    0.21
 359          LU     .65     .16       0
 360          UD    0.48

 361          KK      H3
 362          KM   RUNOFF FROM H3
 363          BA    0.35
 364          LU     .65     .14       0
 365          UD    0.37

 366          KK      I5
 367          KM   BEGIN SOUTH GALLOWAY WASH
 368          KM   RUNOFF FROM I5
 369          BA    4.98
 370          LU     .65     .16       0
 371          UD    1.32
```

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

 372          KK     R52
 373          KM   ROUTING 52 TO 71B
 374          RM       3    0.29     0.2

 375          KK      I6
 376          KM   RUNOFF FROM I6
 377          BA    1.82
 378          LU     .65     .16       0
 379          UD    1.32

 380          KK     71B
 381          KM   HYDROGRAPH COMBINATION, FLOW FROM I5 AND I6;
 382          KM   ABOVE CONFLUENCE WITH ROWE WASH
 383          HC       2

 384          KK      71
 385          KM   BELOW CONFLUENCE OF NORTH GALLOWAY/SOUTH GALLOWAY/ROWE WASH
 386          HC       5
 387          ZZ
```

```
****************************************
*                                      *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *
*            FEBRUARY 1981             *
*          REVISED 01 JUN 88           *
*                                      *
*  RUN DATE  04/02/1990  TIME  10:40:32 *
*                                      *
****************************************
```

```
****************************************
*                                      *
*    U.S. ARMY CORPS OF ENGINEERS      *
*  THE HYDROLOGIC ENGINEERING CENTER   *
*          609 SECOND STREET           *
*       DAVIS, CALIFORNIA 95616        *
*           (916) 551-1748             *
*                                      *
****************************************
```

```
*** CVCRK43R.DAT ***
CAVE CREEK/CAREFREE FIS
CH2M HILL PROJECT # LA027815.H1
MCFCD PROJECT # 88-53
100 YEAR FLOW CALCULATIONS FOR CAVE CREEK TRIBUTARIES
FROM COTTONWOOD CREEK TO GALLOWAY WASH
CH2M HILL  RUN 4.3R
ORIGINAL MODEL DEVELOPED BY FCDMC. MODIFIED BY CH2M HILL.
FINAL REVISIONS BY FCDMC.
INITIAL AND UNIFORM LOSS METHOD (LOSSES BASED ON HYDRO SOIL GROUP)
TRIBUTARY SUBBASINS 100-YR 2 HR RAINFALL = 2.83 IN.
NO AERIAL REDUCTION
TIME OF CONCENTRATION ESTIMATED BY CH2M HILL
MUSKINGUM X BASED ON CHANNEL VELOCITIES
```

```
22 IO        OUTPUT CONTROL VARIABLES
                  IPRNT          3  PRINT CONTROL
                  IPLOT          0  PLOT CONTROL
                  QSCAL         0.  HYDROGRAPH PLOT SCALE

   IT        HYDROGRAPH TIME DATA
                   NMIN          5  MINUTES IN COMPUTATION INTERVAL
                  IDATE      1   0  STARTING DATE
                  ITIME       0000  STARTING TIME
                     NQ        300  NUMBER OF HYDROGRAPH ORDINATES
                 NDDATE      2   0  ENDING DATE
                 NDTIME       0055  ENDING TIME
                  ICENT         19  CENTURY MARK

            COMPUTATION INTERVAL     .08 HOURS
                 TOTAL TIME BASE   24.92 HOURS

       ENGLISH UNITS
            DRAINAGE AREA          SQUARE MILES
            PRECIPITATION DEPTH    INCHES
            LENGTH, ELEVATION      FEET
            FLOW                   CUBIC FEET PER SECOND
            STORAGE VOLUME         ACRE-FEET
            SURFACE AREA           ACRES
            TEMPERATURE            DEGREES FAHRENHEIT

   JP         MULTI-PLAN OPTION
                  NPLAN          1  NUMBER OF PLANS

   JR         MULTI-RATIO OPTION
                RATIOS OF PRECIPITATION
```

```
                .68       .89       1.00      1.20

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

          **************
          *            *
24 KK     *        B3  *
          *            *
          **************
                         BRGIN COTTONWOOD CREEK
                         RUNOFF FROM B3, THE RAINFALL DISTRIBUTION IS SCS TYPE II

27 IN          TIME DATA FOR INPUT TIME SERIES
                    JXMIN          15  TIME INTERVAL IN MINUTES
                   JXDATE      1   0  STARTING DATE
                   JXTIME          0  STARTING TIME

             SUBBASIN RUNOFF DATA

30 BA          SUBBASIN CHARACTERISTICS
                    TAREA        1.33  SUBBASIN AREA

               PRECIPITATION DATA

28 PB               STORM        2.83  BASIN TOTAL PRECIPITATION

29 PI            INCREMENTAL PRECIPITATION PATTERN
                   .01       .01       .01       .02       .02       .02       .06       .06       .06       .17
                   .17       .17       .03       .03       .03       .02       .02       .02       .01       .01
                   .01       .01       .01       .01

31 LU          UNIFORM LOSS RATE
                    STRTL         .75  INITIAL LOSS
                    CNSTL         .08  UNIFORM LOSS RATE
                    RTIMP         .00  PERCENT IMPERVIOUS AREA

32 UD          SCS DIMENSIONLESS UNITGRAPH
                     TLAG         .82  LAG

                                                  ***

                                              UNIT HYDROGRAPH
                                         51 END-OF-PERIOD ORDINATES
             22.       71.      135.      220.      331.      465.      584.      672.      726.      744.
            742.      712.      664.      610.      544.      465.      385.      322.      274.      234.
            201.      174.      149.      127.      107.       93.       79.       68.       57.       49.
             41.       36.       30.       26.       22.       19.       16.       14.       12.       10.
              9.        8.        7.        6.        5.        4.        3.        3.        2.        1.
              1.

   TOTAL RAINFALL =    2.83, TOTAL LOSS =     .85, TOTAL EXCESS =    1.98

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
  1261.       1.75        (CFS)     283.        71.         68.         68.
                        (INCHES)   1.978       1.978       1.978       1.978
                         (AC-FT)   140.        140.        140.        140.

                     CUMULATIVE AREA =    1.33 SQ MI

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

HYDROGRAPH AT STATION B3
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 1.92, TOTAL LOSS = .85, TOTAL EXCESS = 1.08

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
686.	1.83	(CFS)	154.	39.	37.	37.
		(INCHES)	1.079	1.079	1.079	1.079
		(AC-FT)	77.	77.	77.	77.

CUMULATIVE AREA = 1.33 SQ MI

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

HYDROGRAPH AT STATION B3
FOR PLAN 1, RATIO = .89

TOTAL RAINFALL = 2.52, TOTAL LOSS = .85, TOTAL EXCESS = 1.67

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1062.	1.75	(CFS)	239.	60.	58.	58.
		(INCHES)	1.669	1.669	1.669	1.669
		(AC-FT)	118.	118.	118.	118.

CUMULATIVE AREA = 1.33 SQ MI

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

HYDROGRAPH AT STATION B3
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 2.83, TOTAL LOSS = .85, TOTAL EXCESS = 1.98

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1261.	1.75	(CFS)	283.	71.	68.	68.
		(INCHES)	1.978	1.978	1.978	1.978
		(AC-FT)	140.	140.	140.	140.

CUMULATIVE AREA = 1.33 SQ MI

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

HYDROGRAPH AT STATION B3
FOR PLAN 1, RATIO = 1.20

TOTAL RAINFALL = 3.40, TOTAL LOSS = .86, TOTAL EXCESS = 2.54

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1617.	1.75	(CFS)	363.	91.	87.	87.
		(INCHES)	2.540	2.540	2.540	2.540
		(AC-FT)	180.	180.	180.	180.

CUMULATIVE AREA = 1.33 SQ MI

*** ***

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              **************
              *            *
33 KK         *        B2  *
              *            *
              **************
                        RUNOFF FROM B2

            SUBBASIN RUNOFF DATA

35 BA          SUBBASIN CHARACTERISTICS
                    TAREA          .31  SUBBASIN AREA

               PRECIPITATION DATA

28 PB               STORM        2.83  BASIN TOTAL PRECIPITATION

29 PI            INCREMENTAL PRECIPITATION PATTERN
                    .01       .01       .01       .02       .02       .02       .06       .06       .06       .17
                    .17       .17       .03       .03       .03       .02       .02       .02       .01       .01
                    .01       .01       .01       .01

36 LU          UNIFORM LOSS RATE
                    STRTL          .75  INITIAL LOSS
                    CNSTL          .08  UNIFORM LOSS RATE
                    RTIMP          .00  PERCENT IMPERVIOUS AREA

37 UD          SCS DIMENSIONLESS UNITGRAPH
                     TLAG          .19  LAG

                                                    ***

                                                UNIT HYDROGRAPH
                                            13 END-OF-PERIOD ORDINATES
            169.      543.      640.      478.      252.      143.       80.       44.       24.       14.
              8.        5.        2.

   TOTAL RAINFALL =    2.83, TOTAL LOSS =     .85, TOTAL EXCESS =    1.98

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   811.       1.08        (CFS)      66.         16.         16.         16.
                         (INCHES)   1.978       1.978       1.978       1.978
                         (AC-FT)     33.         33.         33.         33.

                         CUMULATIVE AREA =     .31 SQ MI

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

                       HYDROGRAPH AT STATION       B2
                         FOR PLAN 1, RATIO =  .68

   TOTAL RAINFALL =    1.92, TOTAL LOSS =     .85, TOTAL EXCESS =    1.08

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   442.       1.08        (CFS)      36.          9.          9.          9.
                         (INCHES)   1.079       1.079       1.079       1.079
                         (AC-FT)     18.         18.         18.         18.

                         CUMULATIVE AREA =     .31 SQ MI

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

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                    HYDROGRAPH AT STATION       B2
                      FOR PLAN 1, RATIO =  .89

  TOTAL RAINFALL =    2.52, TOTAL LOSS =     .85, TOTAL EXCESS =    1.67

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   691.       1.08       (CFS)       56.         14.         13.         13.
                       (INCHES)    1.669       1.669       1.669       1.669
                       (AC-FT)       28.         28.         28.         28.

                      CUMULATIVE AREA =     .31 SQ MI


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

                    HYDROGRAPH AT STATION       B2
                      FOR PLAN 1, RATIO = 1.00

  TOTAL RAINFALL =    2.83, TOTAL LOSS =     .85, TOTAL EXCESS =    1.98

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   811.       1.08       (CFS)       66.         16.         16.         16.
                       (INCHES)    1.978       1.978       1.978       1.978
                       (AC-FT)       33.         33.         33.         33.

                      CUMULATIVE AREA =     .31 SQ MI


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

                    HYDROGRAPH AT STATION       B2
                      FOR PLAN 1, RATIO = 1.20

  TOTAL RAINFALL =    3.40, TOTAL LOSS =     .86, TOTAL EXCESS =    2.54

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
  1013.       1.08       (CFS)       85.         21.         20.         20.
                       (INCHES)    2.540       2.540       2.540       2.540
                       (AC-FT)       42.         42.         42.         42.

                      CUMULATIVE AREA =     .31 SQ MI


*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***,*** *** *** *** *** *** *** *** *** *** *** ***

          **************
          *            *
 38 KK    *       14A  *
          *            *
          **************
                    COMBINING HYDROGRAPHS

 40 HC          HYDROGRAPH COMBINATION
                     ICOMP          2  NUMBER OF HYDROGRAPHS TO COMBINE

                                                          ***

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

                    HYDROGRAPH AT STATION      14A
```

FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
746.	1.75	(CFS)	190.	48.	46.	46.
		(INCHES)	1.079	1.079	1.079	1.079
		(AC-FT)	94.	94.	94.	94.

CUMULATIVE AREA = 1.64 SQ MI

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

HYDROGRAPH AT STATION 14A
FOR PLAN 1, RATIO = .89

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1154.	1.75	(CFS)	294.	74.	71.	71.
		(INCHES)	1.669	1.669	1.669	1.669
		(AC-FT)	146.	146.	146.	146.

CUMULATIVE AREA = 1.64 SQ MI

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

HYDROGRAPH AT STATION 14A
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1366.	1.75	(CFS)	349.	87.	84.	84.
		(INCHES)	1.978	1.978	1.978	1.978
		(AC-FT)	173.	173.	173.	173.

CUMULATIVE AREA = 1.64 SQ MI

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

HYDROGRAPH AT STATION 14A
FOR PLAN 1, RATIO = 1.20

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1747.	1.75	(CFS)	448.	112.	108.	108.
		(INCHES)	2.540	2.540	2.540	2.540
		(AC-FT)	222.	222.	222.	222.

CUMULATIVE AREA = 1.64 SQ MI

*** ***

```
**************
*            *
1 KK    *     R14A  *
*            *
**************
```

ROUTING 14A TO 12A

HYDROGRAPH ROUTING DATA

43 RM MUSKINGUM ROUTING

NSTPS	1	NUMBER OF SUBREACHES
AMSKK	.10	MUSKINGUM K
X	.20	MUSKINGUM X

***

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

HYDROGRAPH AT STATION R14A
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
738.	1.92	(CFS)	190.	48.	46.	46.
		(INCHES)	1.079	1.079	1.079	1.079
		(AC-FT)	94.	94.	94.	94.

CUMULATIVE AREA = 1.64 SQ MI

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

HYDROGRAPH AT STATION R14A
FOR PLAN 1, RATIO = .89

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1143.	1.83	(CFS)	294.	74.	71.	71.
		(INCHES)	1.669	1.669	1.669	1.669
		(AC-FT)	146.	146.	146.	146.

CUMULATIVE AREA = 1.64 SQ MI

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

HYDROGRAPH AT STATION R14A
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1354.	1.83	(CFS)	349.	87.	84.	84.
		(INCHES)	1.978	1.978	1.978	1.978
		(AC-FT)	173.	173.	173.	173.

CUMULATIVE AREA = 1.64 SQ MI

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

HYDROGRAPH AT STATION R14A
FOR PLAN 1, RATIO = 1.20

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1733.	1.83	(CFS)	448.	112.	108.	108.
		(INCHES)	2.540	2.540	2.540	2.540
		(AC-FT)	222.	222.	222.	222.

CUMULATIVE AREA = 1.64 SQ MI

*** ***

```
              **************
              *            *
 4 KK         *        B4  *
              *            *
              **************
                                RUNOFF FROM B4

                SUBBASIN RUNOFF DATA

 46 BA            SUBBASIN CHARACTERISTICS
                        TAREA          .56  SUBBASIN AREA

                  PRECIPITATION DATA

 28 PB                  STORM        2.83  BASIN TOTAL PRECIPITATION

 29 PI              INCREMENTAL PRECIPITATION PATTERN
                        .01       .01       .01       .02       .02       .02       .06       .06       .06       .17
                        .17       .17       .03       .03       .03       .02       .02       .02       .01       .01
                        .01       .01       .01       .01

 47 LU            UNIFORM LOSS RATE
                        STRTL          .75  INITIAL LOSS
                        CNSTL          .08  UNIFORM LOSS RATE
                        RTIMP          .00  PERCENT IMPERVIOUS AREA

 48 UD            SCS DIMENSIONLESS UNITGRAPH
                         TLAG          .22  LAG

                                                          ***

                                                   UNIT HYDROGRAPH
                                              15 END-OF-PERIOD ORDINATES
              220.      746.     1032.      911.      590.      337.      206.      122.       72.       43.
               26.       15.       10.        6.        2.

   TOTAL RAINFALL =    2.83, TOTAL LOSS =     .85, TOTAL EXCESS =    1.98

 PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
   (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   1318.       1.08        (CFS)     119.         30.         29.         29.
                         (INCHES)   1.978       1.978       1.978       1.978
                          (AC-FT)     59.         59.         59.         59.

                         CUMULATIVE AREA =     .56 SQ MI


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

                       HYDROGRAPH AT STATION       B4
                         FOR PLAN 1, RATIO =  .68

   TOTAL RAINFALL =    1.92, TOTAL LOSS =     .85, TOTAL EXCESS =    1.08

 PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
   (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
    735.       1.17        (CFS)      65.         16.         16.         16.
                         (INCHES)   1.079       1.079       1.079       1.079
                          (AC-FT)     32.         32.         32.         32.

                         CUMULATIVE AREA =     .56 SQ MI
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***            ***            ***            ***            ***

                    HYDROGRAPH AT STATION       B4
                      FOR PLAN 1, RATIO =  .89

 TOTAL RAINFALL =    2.52, TOTAL LOSS =     .85, TOTAL EXCESS =    1.67

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
  1109.       1.08       (CFS)      101.         25.         24.         24.
                       (INCHES)    1.669       1.669       1.669       1.669
                        (AC-FT)     50.         50.         50.         50.

                     CUMULATIVE AREA =     .56 SQ MI


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

                    HYDROGRAPH AT STATION       B4
                      FOR PLAN 1, RATIO = 1.00

 TOTAL RAINFALL =    2.83, TOTAL LOSS =     .85, TOTAL EXCESS =    1.98

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
  1318.       1.08       (CFS)      119.         30.         29.         29.
                       (INCHES)    1.978       1.978       1.978       1.978
                        (AC-FT)     59.         59.         59.         59.

                     CUMULATIVE AREA =     .56 SQ MI


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

                    HYDROGRAPH AT STATION       B4
                      FOR PLAN 1, RATIO = 1.20

 TOTAL RAINFALL =    3.40, TOTAL LOSS =     .86, TOTAL EXCESS =    2.54

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
  1671.       1.08       (CFS)      153.         38.         37.         37.
                       (INCHES)    2.540       2.540       2.540       2.540
                        (AC-FT)     76.         76.         76.         76.

                     CUMULATIVE AREA =     .56 SQ MI


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


          **************
          *            *
 49 KK    *        B1  *
          *            *
          **************
                    RUNOFF FROM B1

            SUBBASIN RUNOFF DATA

 51 BA        SUBBASIN CHARACTERISTICS
                   TAREA        6.11  SUBBASIN AREA

              PRECIPITATION DATA
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28 PB              STORM        2.83  BASIN TOTAL PRECIPITATION

29 PI          INCREMENTAL PRECIPITATION PATTERN
                  .01       .01       .01       .02       .02       .02       .06       .06       .06       .17
                  .17       .17       .03       .03       .03       .02       .02       .02       .01       .01
                  .01       .01       .01       .01

52 LU          UNIFORM LOSS RATE
                  STRTL         .75  INITIAL LOSS
                  CNSTL         .08  UNIFORM LOSS RATE
                  RTIMP         .00  PERCENT IMPERVIOUS AREA

53 UD          SCS DIMENSIONLESS UNITGRAPH
                   TLAG         .55  LAG

                                                    ***

                                                UNIT HYDROGRAPH
                                            35 END-OF-PERIOD ORDINATES
          292.      866.     1726.     2946.     4114.     4775.     4982.     4859.     4404.     3849.
         3097.     2344.     1853.     1467.     1192.      953.      742.      598.      477.      375.
          298.      238.      189.      150.      121.       95.       75.       60.       50.       41.
           33.       25.       18.       11.        4.

   TOTAL RAINFALL =    2.83, TOTAL LOSS =     .85, TOTAL EXCESS =    1.98

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   7876.      1.50        (CFS)     1300.       325.        313.        313.
                        (INCHES)    1.978      1.978       1.978       1.978
                         (AC-FT)     645.       645.        645.        645.

                       CUMULATIVE AREA =    6.11 SQ MI

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

                       HYDROGRAPH AT STATION       B1
                         FOR PLAN 1, RATIO =  .68

   TOTAL RAINFALL =    1.92, TOTAL LOSS =     .85, TOTAL EXCESS =    1.08

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   4276.      1.50        (CFS)      709.       177.        171.        171.
                        (INCHES)    1.079      1.079       1.079       1.079
                         (AC-FT)     352.       352.        352.        352.

                       CUMULATIVE AREA =    6.11 SQ MI

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

                       HYDROGRAPH AT STATION       B1
                         FOR PLAN 1, RATIO =  .89

   TOTAL RAINFALL =    2.52, TOTAL LOSS =     .85, TOTAL EXCESS =    1.67

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   6655.      1.50        (CFS)     1097.       274.        264.        264.
                        (INCHES)    1.669      1.669       1.669       1.669
                         (AC-FT)     544.       544.        544.        544.

                       CUMULATIVE AREA =    6.11 SQ MI
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   ***          ***          ***          ***          ***

                    HYDROGRAPH AT STATION       B1
                      FOR PLAN 1, RATIO = 1.00

  TOTAL RAINFALL =    2.83, TOTAL LOSS =     .85, TOTAL EXCESS =    1.98

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
   7876.      1.50       (CFS)     1300.       325.        313.        313.
                       (INCHES)    1.978      1.978       1.978       1.978
                        (AC-FT)    645.       645.        645.        645.

                     CUMULATIVE AREA =    6.11 SQ MI


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

                    HYDROGRAPH AT STATION       B1
                      FOR PLAN 1, RATIO = 1.20

  TOTAL RAINFALL =    3.40, TOTAL LOSS =     .86, TOTAL EXCESS =    2.54

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
  10051.      1.50       (CFS)     1669.       417.        402.        402.
                       (INCHES)    2.540      2.540       2.540       2.540
                        (AC-FT)    828.       828.        828.        828.

                     CUMULATIVE AREA =    6.11 SQ MI


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


          **************
          *            *
 54 KK    *       12A  *
          *            *
          **************
                    COMBINING B4, B3+2 AND B1

 56 HC          HYDROGRAPH COMBINATION
                      ICOMP          3  NUMBER OF HYDROGRAPHS TO COMBINE

                                                          ***

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

                    HYDROGRAPH AT STATION      12A
                      FOR PLAN 1, RATIO =  .68

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
   5127.      1.50       (CFS)     964.        241.        232.        232.
                       (INCHES)    1.079      1.079       1.079       1.079
                        (AC-FT)    478.       478.        478.        478.

                     CUMULATIVE AREA =    8.31 SQ MI


   ***          ***          ***          ***          ***
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HYDROGRAPH AT STATION 12A
FOR PLAN 1, RATIO = .89

K FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
7963.	1.50	(CFS)	1492.	373.	359.	359.
		(INCHES)	1.669	1.669	1.669	1.669
		(AC-FT)	740.	740.	740.	740.

CUMULATIVE AREA = 8.31 SQ MI

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

HYDROGRAPH AT STATION 12A
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
9424.	1.50	(CFS)	1768.	442.	426.	426.
		(INCHES)	1.978	1.978	1.978	1.978
		(AC-FT)	877.	877.	877.	877.

CUMULATIVE AREA = 8.31 SQ MI

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

HYDROGRAPH AT STATION 12A
FOR PLAN 1, RATIO = 1.20

K FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
12075.	1.42	(CFS)	2270.	568.	547.	547.
		(INCHES)	2.540	2.540	2.540	2.540
		(AC-FT)	1126.	1126.	1126.	1126.

CUMULATIVE AREA = 8.31 SQ MI

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          *            *
 57 KK    *     R12A   *
          *            *
          **************
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ROUTING 12A TO 11A

HYDROGRAPH ROUTING DATA

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 59 RM        MUSKINGUM ROUTING
                   NSTPS        2 NUMBER OF SUBREACHES
                   AMSKK      .04 MUSKINGUM K
                       X      .20 MUSKINGUM X
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*** *** *** *** ***

HYDROGRAPH AT STATION R12A
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
5100.	1.58	(CFS)	964.	241.	232.	232.
		(INCHES)	1.079	1.079	1.079	1.079
		(AC-FT)	478.	478.	478.	478.

CUMULATIVE AREA = 8.31 SQ MI

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

HYDROGRAPH AT STATION R12A
FOR PLAN 1, RATIO = .89

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
7964.	1.50	(CFS)	1492.	373.	359.	359.
		(INCHES)	1.669	1.669	1.669	1.669
		(AC-FT)	740.	740.	740.	740.

CUMULATIVE AREA = 8.31 SQ MI

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

HYDROGRAPH AT STATION R12A
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
9447.	1.50	(CFS)	1768.	442.	426.	426.
		(INCHES)	1.978	1.978	1.978	1.978
		(AC-FT)	877.	877.	877.	877.

CUMULATIVE AREA = 8.31 SQ MI

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

HYDROGRAPH AT STATION R12A
FOR PLAN 1, RATIO = 1.20

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
12097.	1.50	(CFS)	2270.	568.	547.	547.
		(INCHES)	2.540	2.540	2.540	2.540
		(AC-FT)	1126.	1126.	1126.	1126.

CUMULATIVE AREA = 8.31 SQ MI

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              **************
              *            *
 60 KK        *        B5  *
              *            *
              **************
```

RUNOFF FROM B5

SUBBASIN RUNOFF DATA

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62 BA          SUBBASIN CHARACTERISTICS
                    TAREA          .49  SUBBASIN AREA

               PRECIPITATION DATA

 PB                 STORM         2.83  BASIN TOTAL PRECIPITATION

29 PI            INCREMENTAL PRECIPITATION PATTERN
                    .01       .01       .01       .02       .02       .02       .06       .06       .06       .17
                    .17       .17       .03       .03       .03       .02       .02       .02       .01       .01
                    .01       .01       .01       .01

63 LU          UNIFORM LOSS RATE
                    STRTL          .75  INITIAL LOSS
                    CNSTL          .08  UNIFORM LOSS RATE
                    RTIMP          .00  PERCENT IMPERVIOUS AREA

64 UD          SCS DIMENSIONLESS UNITGRAPH
                     TLAG          .22  LAG

                                                    ***

                                                UNIT HYDROGRAPH
                                           15 END-OF-PERIOD ORDINATES
             193.      653.      903.      797.      516.      295.      180.      107.       63.       37.
              23.       13.        8.        5.        2.

   TOTAL RAINFALL =    2.83, TOTAL LOSS =     .85, TOTAL EXCESS =    1.98

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
  1153.       1.08       (CFS)      104.         26.         25.         25.
                       (INCHES)    1.978       1.978       1.978       1.978
                        (AC-FT)     52.         52.         52.         52.

                        CUMULATIVE AREA =     .49 SQ MI


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

                      HYDROGRAPH AT STATION       B5
                        FOR PLAN 1, RATIO =  .68

   TOTAL RAINFALL =    1.92, TOTAL LOSS =     .85, TOTAL EXCESS =    1.08

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   643.       1.17       (CFS)       57.         14.         14.         14.
                       (INCHES)    1.079       1.079       1.079       1.079
                        (AC-FT)     28.         28.         28.         28.

                        CUMULATIVE AREA =     .49 SQ MI


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

                      HYDROGRAPH AT STATION       B5
                        FOR PLAN 1, RATIO =  .89

   TOTAL RAINFALL =    2.52, TOTAL LOSS =     .85, TOTAL EXCESS =    1.67

K FLOW        TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   970.       1.08       (CFS)       88.         22.         21.         21.
                       (INCHES)    1.669       1.669       1.669       1.669
                        (AC-FT)     44.         44.         44.         44.
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                    CUMULATIVE AREA =     .49 SQ MI

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

                    HYDROGRAPH AT STATION       B5
                      FOR PLAN 1, RATIO = 1.00

  TOTAL RAINFALL =    2.83, TOTAL LOSS =     .85, TOTAL EXCESS =    1.98

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
  1153.       1.08       (CFS)     104.        26.         25.         25.
                       (INCHES)   1.978       1.978       1.978       1.978
                        (AC-FT)    52.         52.         52.         52.

                    CUMULATIVE AREA =     .49 SQ MI

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

                    HYDROGRAPH AT STATION       B5
                      FOR PLAN 1, RATIO = 1.20

  TOTAL RAINFALL =    3.40, TOTAL LOSS =     .86, TOTAL EXCESS =    2.54

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
  1462.       1.08       (CFS)     134.        33.         32.         32.
                       (INCHES)   2.540       2.540       2.540       2.540
                        (AC-FT)    66.         66.         66.         66.

                    CUMULATIVE AREA =     .49 SQ MI


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


          **************
          *            *
 65 KK    *        B6  *
          *            *
          **************
                    RUNOFF FROM B6

            SUBBASIN RUNOFF DATA

 67 BA        SUBBASIN CHARACTERISTICS
                  TAREA          .82  SUBBASIN AREA

              PRECIPITATION DATA

 28 PB            STORM         2.83  BASIN TOTAL PRECIPITATION

 29 PI          INCREMENTAL PRECIPITATION PATTERN
                  .01       .01       .01       .02       .02       .02       .06       .06       .06       .17
                  .17       .17       .03       .03       .03       .02       .02       .02       .01       .01
                  .01       .01       .01       .01

 68 LU        UNIFORM LOSS RATE
                  STRTL          .75  INITIAL LOSS
                  CNSTL          .08  UNIFORM LOSS RATE
                  RTIMP          .00  PERCENT IMPERVIOUS AREA
```

69 UD SCS DIMENSIONLESS UNITGRAPH
TLAG .37 LAG

***

UNIT HYDROGRAPH
24 END-OF-PERIOD ORDINATES

98.	306.	647.	901.	962.	886.	735.	521.	363.	261.
192.	136.	98.	71.	50.	36.	26.	19.	14.	10.
8.	5.	3.	1.						

TOTAL RAINFALL = 2.83, TOTAL LOSS = .85, TOTAL EXCESS = 1.98

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1410.	1.25	(CFS)	174.	44.	42.	42.
		(INCHES)	1.978	1.978	1.978	1.978
		(AC-FT)	87.	87.	87.	87.

CUMULATIVE AREA = .82 SQ MI

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

HYDROGRAPH AT STATION B6
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 1.92, TOTAL LOSS = .85, TOTAL EXCESS = 1.08

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
764.	1.33	(CFS)	95.	24.	23.	23.
		(INCHES)	1.079	1.079	1.079	1.079
		(AC-FT)	47.	47.	47.	47.

CUMULATIVE AREA = .82 SQ MI

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

HYDROGRAPH AT STATION B6
FOR PLAN 1, RATIO = .89

TOTAL RAINFALL = 2.52, TOTAL LOSS = .85, TOTAL EXCESS = 1.67

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1187.	1.25	(CFS)	147.	37.	35.	35.
		(INCHES)	1.669	1.669	1.669	1.669
		(AC-FT)	73.	73.	73.	73.

CUMULATIVE AREA = .82 SQ MI

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

HYDROGRAPH AT STATION B6
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 2.83, TOTAL LOSS = .85, TOTAL EXCESS = 1.98

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1410.	1.25	(CFS)	174.	44.	42.	42.
		(INCHES)	1.978	1.978	1.978	1.978

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                    (AC-FT)       87.         87.         87.         87.

                    CUMULATIVE AREA =     .82 SQ MI

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

                     HYDROGRAPH AT STATION       B6
                       FOR PLAN 1, RATIO = 1.20

   TOTAL RAINFALL =    3.40, TOTAL LOSS =     .86, TOTAL EXCESS =    2.54

 PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
   (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
   1804.       1.25       (CFS)     224.         56.         54.         54.
                        (INCHES)   2.540       2.540       2.540       2.540
                         (AC-FT)    111.        111.        111.        111.

                    CUMULATIVE AREA =     .82 SQ MI


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


          **************
          *            *
 70 KK    *       11A  *
          *            *
          **************
                       COMBINING B5,B6,ALL OTHERS ON B

 72 HC          HYDROGRAPH COMBINATION
                     ICOMP           3  NUMBER OF HYDROGRAPHS TO COMBINE

                                                          ***

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

                     HYDROGRAPH AT STATION      11A
                       FOR PLAN 1, RATIO =  .68

 PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
   (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
   5905.       1.50       (CFS)    1116.        279.        269.        269.
                        (INCHES)   1.079       1.079       1.079       1.079
                         (AC-FT)    553.        553.        553.        553.

                    CUMULATIVE AREA =    9.62 SQ MI

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

                     HYDROGRAPH AT STATION      11A
                       FOR PLAN 1, RATIO =  .89

 PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
   (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
   9202.       1.42       (CFS)    1727.        432.        416.        416.
                        (INCHES)   1.669       1.669       1.669       1.669
                         (AC-FT)    857.        857.        857.        857.

                    CUMULATIVE AREA =    9.62 SQ MI
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***          ***          ***          ***          ***

                HYDROGRAPH AT STATION      11A
                  FOR PLAN 1, RATIO = 1.00

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
  10925.      1.42       (CFS)     2047.       512.        493.        493.
                       (INCHES)    1.978      1.978       1.978       1.978
                        (AC-FT)    1015.      1015.       1015.       1015.

                CUMULATIVE AREA =    9.62 SQ MI


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

                HYDROGRAPH AT STATION      11A
                  FOR PLAN 1, RATIO = 1.20

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
  14016.      1.42       (CFS)     2628.       657.        633.        633.
                       (INCHES)    2.540      2.540       2.540       2.540
                        (AC-FT)    1303.      1303.       1303.       1303.

                CUMULATIVE AREA =    9.62 SQ MI


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          *            *
 73 KK    *     R11A   *
          *            *
          **************
                ROUTING 11A TO B

        HYDROGRAPH ROUTING DATA

 75 RM        MUSKINGUM ROUTING
                NSTPS        1 NUMBER OF SUBREACHES
                AMSKK      .12 MUSKINGUM K
                    X      .20 MUSKINGUM X

                                                          ***

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

                HYDROGRAPH AT STATION     R11A
                  FOR PLAN 1, RATIO =  .68

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
   5763.      1.58       (CFS)     1116.       279.        269.        269.
                       (INCHES)    1.079      1.079       1.079       1.079
                        (AC-FT)     553.       553.        553.        553.

                CUMULATIVE AREA =    9.62 SQ MI

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

                HYDROGRAPH AT STATION     R11A
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FOR PLAN 1, RATIO = .89

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
8984.	1.58	(CFS)	1727.	432.	416.	416.
		(INCHES)	1.669	1.669	1.669	1.669
		(AC-FT)	857.	857.	857.	857.

CUMULATIVE AREA = 9.62 SQ MI

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

HYDROGRAPH AT STATION R11A
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
10646.	1.58	(CFS)	2047.	512.	493.	493.
		(INCHES)	1.978	1.978	1.978	1.978
		(AC-FT)	1015.	1015.	1015.	1015.

CUMULATIVE AREA = 9.62 SQ MI

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

HYDROGRAPH AT STATION R11A
FOR PLAN 1, RATIO = 1.20

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
13619.	1.58	(CFS)	2628.	657.	633.	633.
		(INCHES)	2.540	2.540	2.540	2.540
		(AC-FT)	1303.	1303.	1303.	1303.

CUMULATIVE AREA = 9.62 SQ MI

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          *            *
 76 KK    *        B7  *
          *            *
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RUNOFF FROM B7

SUBBASIN RUNOFF DATA

78 BA SUBBASIN CHARACTERISTICS
TAREA .44 SUBBASIN AREA

PRECIPITATION DATA

28 PB STORM 2.83 BASIN TOTAL PRECIPITATION

29 PI INCREMENTAL PRECIPITATION PATTERN

.01	.01	.01	.02	.02	.02	.06	.06	.06	.17
.17	.17	.03	.03	.03	.02	.02	.02	.01	.01
.01	.01	.01	.01						

79 LU UNIFORM LOSS RATE

```
                STRTL        .75  INITIAL LOSS
                CNSTL        .09  UNIFORM LOSS RATE
                RTIMP        .00  PERCENT IMPERVIOUS AREA

UD        SCS DIMENSIONLESS UNITGRAPH
                TLAG        .27  LAG

                                                  ***

                                              UNIT HYDROGRAPH
                                          18 END-OF-PERIOD ORDINATES
          110.     366.     635.     678.     567.     379.     237.     156.     99.     65.
           42.      27.      18.      11.       7.       5.       3.       1.

  TOTAL RAINFALL =    2.83, TOTAL LOSS =     .86, TOTAL EXCESS =    1.97

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
   941.       1.17       (CFS)      93.         23.         22.         22.
                       (INCHES)    1.972       1.972       1.972       1.972
                        (AC-FT)     46.         46.         46.         46.

                       CUMULATIVE AREA =     .44 SQ MI


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

                     HYDROGRAPH AT STATION       B7
                       FOR PLAN 1, RATIO =  .68

  TOTAL RAINFALL =    1.92, TOTAL LOSS =     .85, TOTAL EXCESS =    1.07

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
   507.       1.17       (CFS)      51.         13.         12.         12.
                       (INCHES)    1.073       1.073       1.073       1.073
                        (AC-FT)     25.         25.         25.         25.

                       CUMULATIVE AREA =     .44 SQ MI


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

                     HYDROGRAPH AT STATION       B7
                       FOR PLAN 1, RATIO =  .89

  TOTAL RAINFALL =    2.52, TOTAL LOSS =     .86, TOTAL EXCESS =    1.66

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
   797.       1.17       (CFS)      79.         20.         19.         19.
                       (INCHES)    1.663       1.663       1.663       1.663
                        (AC-FT)     39.         39.         39.         39.

                       CUMULATIVE AREA =     .44 SQ MI


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

                     HYDROGRAPH AT STATION       B7
                       FOR PLAN 1, RATIO = 1.00

  TOTAL RAINFALL =    2.83, TOTAL LOSS =     .86, TOTAL EXCESS =    1.97

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
```

941.	1.17	(CFS)	93.	23.	22.	22.
		(INCHES)	1.972	1.972	1.972	1.972
		(AC-FT)	46.	46.	46.	46.

CUMULATIVE AREA = .44 SQ MI

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

HYDROGRAPH AT STATION B7
FOR PLAN 1, RATIO = 1.20

TOTAL RAINFALL = 3.40, TOTAL LOSS = .86, TOTAL EXCESS = 2.53

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1188.	1.17	(CFS)	120.	30.	29.	29.
		(INCHES)	2.533	2.533	2.533	2.533
		(AC-FT)	59.	59.	59.	59.

CUMULATIVE AREA = .44 SQ MI

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          **************
          *            *
81 KK     *         B  *
          *            *
          **************
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COTTONWOOD CREEK, ABOVE CONFLUENCE WITH CAVE CREEK

83 HC HYDROGRAPH COMBINATION
ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

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

HYDROGRAPH AT STATION B
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
5952.	1.58	(CFS)	1167.	292.	281.	281.
		(INCHES)	1.078	1.078	1.078	1.078
		(AC-FT)	579.	579.	579.	579.

CUMULATIVE AREA = 10.06 SQ MI

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

HYDROGRAPH AT STATION B
FOR PLAN 1, RATIO = .89

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
9253.	1.58	(CFS)	1806.	452.	435.	435.
		(INCHES)	1.669	1.669	1.669	1.669
		(AC-FT)	896.	896.	896.	896.

CUMULATIVE AREA = 10.06 SQ MI

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

                HYDROGRAPH AT STATION        B
                  FOR PLAN 1, RATIO = 1.00

PEAK FLOW    TIME                        MAXIMUM AVERAGE FLOW
  (CFS)      (HR)                6-HR      24-HR      72-HR     24.92-HR
  10956.     1.58      (CFS)     2140.      535.       515.        515.
                     (INCHES)    1.978     1.978      1.978       1.978
                      (AC-FT)    1061.     1061.      1061.       1061.

                 CUMULATIVE AREA =   10.06 SQ MI


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

                HYDROGRAPH AT STATION        B
                  FOR PLAN 1, RATIO = 1.20

PEAK FLOW    TIME                        MAXIMUM AVERAGE FLOW
  (CFS)      (HR)                6-HR      24-HR      72-HR     24.92-HR
  14038.     1.50      (CFS)     2748.      687.       662.        662.
                     (INCHES)    2.540     2.540      2.540       2.540
                      (AC-FT)    1363.     1363.      1363.       1363.

                 CUMULATIVE AREA =   10.06 SQ MI


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


          **************
          *            *
 84 KK    *        D1  *
          *            *
          **************
                 FLEMMING WASH
                 RUNOFF FROM D1

            SUBBASIN RUNOFF DATA

 87 BA        SUBBASIN CHARACTERISTICS
                TAREA          .56  SUBBASIN AREA

              PRECIPITATION DATA

 28 PB          STORM         2.83  BASIN TOTAL PRECIPITATION

 29 PI          INCREMENTAL PRECIPITATION PATTERN
                  .01       .01       .01       .02       .02       .02       .06       .06       .06       .17
                  .17       .17       .03       .03       .03       .02       .02       .02       .01       .01
                  .01       .01       .01       .01

 88 LU        UNIFORM LOSS RATE
                STRTL          .65  INITIAL LOSS
                CNSTL          .09  UNIFORM LOSS RATE
                RTIMP          .00  PERCENT IMPERVIOUS AREA

 89 UD        SCS DIMENSIONLESS UNITGRAPH
                TLAG           .24  LAG

                                                    ***
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UNIT HYDROGRAPH
16 END-OF-PERIOD ORDINATES

179.	618.	942.	902.	672.	391.	244.	151.	94.	57.
35.	22.	14.	9.	6.	3.				

TOTAL RAINFALL = 2.83, TOTAL LOSS = .77, TOTAL EXCESS = 2.06

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1302.	1.17	(CFS)	124.	31.	30.	30.
		(INCHES)	2.062	2.062	2.062	2.062
		(AC-FT)	62.	62.	62.	62.

CUMULATIVE AREA = .56 SQ MI

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

HYDROGRAPH AT STATION D1
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 1.92, TOTAL LOSS = .76, TOTAL EXCESS = 1.16

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
768.	1.17	(CFS)	70.	18.	17.	17.
		(INCHES)	1.164	1.164	1.164	1.164
		(AC-FT)	35.	35.	35.	35.

CUMULATIVE AREA = .56 SQ MI

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

HYDROGRAPH AT STATION D1
FOR PLAN 1, RATIO = .89

TOTAL RAINFALL = 2.52, TOTAL LOSS = .77, TOTAL EXCESS = 1.75

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1129.	1.17	(CFS)	106.	26.	25.	25.
		(INCHES)	1.754	1.754	1.754	1.754
		(AC-FT)	52.	52.	52.	52.

CUMULATIVE AREA = .56 SQ MI

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

HYDROGRAPH AT STATION D1
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 2.83, TOTAL LOSS = .77, TOTAL EXCESS = 2.06

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1302.	1.17	(CFS)	124.	31.	30.	30.
		(INCHES)	2.062	2.062	2.062	2.062
		(AC-FT)	62.	62.	62.	62.

CUMULATIVE AREA = .56 SQ MI

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                    HYDROGRAPH AT STATION       D1
                      FOR PLAN 1, RATIO = 1.20

TOTAL RAINFALL =    3.40, TOTAL LOSS =     .77, TOTAL EXCESS =    2.62

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   1606.      1.17        (CFS)     158.         39.         38.         38.
                        (INCHES)   2.623       2.623       2.623       2.623
                         (AC-FT)     78.         78.         78.         78.

                       CUMULATIVE AREA =     .56 SQ MI


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


          **************
          *            *
  90 KK   *        D2  *
          *            *
          **************
                         BEGIN WILLOW SPRINGS WASH
                         RUNOFF FROM D2

             SUBBASIN RUNOFF DATA

  93 BA        SUBBASIN CHARACTERISTICS
                     TAREA          .32  SUBBASIN AREA

               PRECIPITATION DATA

  28 PB              STORM         2.83  BASIN TOTAL PRECIPITATION

  29 PI          INCREMENTAL PRECIPITATION PATTERN
                     .01       .01       .01       .02       .02       .02       .06       .06       .06       .17
                     .17       .17       .03       .03       .03       .02       .02       .02       .01       .01
                     .01       .01       .01       .01

  94 LU        UNIFORM LOSS RATE
                     STRTL          .65  INITIAL LOSS
                     CNSTL          .09  UNIFORM LOSS RATE
                     RTIMP          .00  PERCENT IMPERVIOUS AREA

  95 UD        SCS DIMENSIONLESS UNITGRAPH
                      TLAG          .26  LAG

                                                  ***

                                              UNIT HYDROGRAPH
                                          18 END-OF-PERIOD ORDINATES
            86.      292.      485.      505.      407.      257.      160.      104.       66.       42.
            27.       17.       11.        7.        5.        3.        2.        0.

   TOTAL RAINFALL =    2.83, TOTAL LOSS =     .77, TOTAL EXCESS =    2.06

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
    724.      1.17        (CFS)      71.         18.         17.         17.
                        (INCHES)   2.062       2.062       2.062       2.062
                         (AC-FT)     35.         35.         35.         35.

                       CUMULATIVE AREA =     .32 SQ MI
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*** *** *** *** ***

HYDROGRAPH AT STATION D2
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 1.92, TOTAL LOSS = .76, TOTAL EXCESS = 1.16

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
420.	1.17	(CFS)	40.	10.	10.	10.
		(INCHES)	1.164	1.164	1.164	1.164
		(AC-FT)	20.	20.	20.	20.

CUMULATIVE AREA = .32 SQ MI

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

HYDROGRAPH AT STATION D2
FOR PLAN 1, RATIO = .89

TOTAL RAINFALL = 2.52, TOTAL LOSS = .77, TOTAL EXCESS = 1.75

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
626.	1.17	(CFS)	60.	15.	15.	15.
		(INCHES)	1.754	1.754	1.754	1.754
		(AC-FT)	30.	30.	30.	30.

CUMULATIVE AREA = .32 SQ MI

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

HYDROGRAPH AT STATION D2
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 2.83, TOTAL LOSS = .77, TOTAL EXCESS = 2.06

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
724.	1.17	(CFS)	71.	18.	17.	17.
		(INCHES)	2.062	2.062	2.062	2.062
		(AC-FT)	35.	35.	35.	35.

CUMULATIVE AREA = .32 SQ MI

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

HYDROGRAPH AT STATION D2
FOR PLAN 1, RATIO = 1.20

TOTAL RAINFALL = 3.40, TOTAL LOSS = .77, TOTAL EXCESS = 2.62

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
897.	1.17	(CFS)	90.	23.	22.	22.
		(INCHES)	2.623	2.623	2.623	2.623
		(AC-FT)	45.	45.	45.	45.

CUMULATIVE AREA = .32 SQ MI

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

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          *            *
 96 KK    *        16  *
          *            *
          **************
                        HYDROGRAPH COMBINATION, D1 AND D2

 98 HC          HYDROGRAPH COMBINATION
                      ICOMP           2  NUMBER OF HYDROGRAPHS TO COMBINE

                                                                  ***

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

                       HYDROGRAPH AT STATION       16
                         FOR PLAN 1, RATIO =  .68

 PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
   (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   1189.       1.17       (CFS)      110.         28.         27.          27.
                        (INCHES)    1.164       1.164       1.164        1.164
                        (AC-FT)      55.         55.         55.          55.

                       CUMULATIVE AREA =     .88 SQ MI


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

                       HYDROGRAPH AT STATION       16
                         FOR PLAN 1, RATIO =  .89

 PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
   (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   1755.       1.17       (CFS)      166.         41.         40.          40.
                        (INCHES)    1.754       1.754       1.754        1.754
                        (AC-FT)      82.         82.         82.          82.

                       CUMULATIVE AREA =     .88 SQ MI


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

                       HYDROGRAPH AT STATION       16
                         FOR PLAN 1, RATIO = 1.00

 PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
   (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   2027.       1.17       (CFS)      195.         49.         47.          47.
                        (INCHES)    2.062       2.062       2.062        2.062
                        (AC-FT)      97.         97.         97.          97.

                       CUMULATIVE AREA =     .88 SQ MI


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

                       HYDROGRAPH AT STATION       16
                         FOR PLAN 1, RATIO = 1.20

 PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
   (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
```

2502.	1.17	(CFS)	248.	62.	60.	60.
		(INCHES)	2.623	2.623	2.623	2.623
		(AC-FT)	123.	123.	123.	123.

CUMULATIVE AREA = .88 SQ MI

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          *            *
 99 KK    *      R16   *
          *            *
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ROUTING 16 TO 17

HYDROGRAPH ROUTING DATA

101 RM MUSKINGUM ROUTING

NSTPS	1	NUMBER OF SUBREACHES
AMSKK	.11	MUSKINGUM K
X	.20	MUSKINGUM X

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

HYDROGRAPH AT STATION R16
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1068.	1.25	(CFS)	110.	28.	27.	27.
		(INCHES)	1.164	1.164	1.164	1.164
		(AC-FT)	55.	55.	55.	55.

CUMULATIVE AREA = .88 SQ MI

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

HYDROGRAPH AT STATION R16
FOR PLAN 1, RATIO = .89

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1603.	1.25	(CFS)	166.	41.	40.	40.
		(INCHES)	1.754	1.754	1.754	1.754
		(AC-FT)	82.	82.	82.	82.

CUMULATIVE AREA = .88 SQ MI

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

HYDROGRAPH AT STATION R16
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1865.	1.25	(CFS)	195.	49.	47.	47.
		(INCHES)	2.062	2.062	2.062	2.062
		(AC-FT)	97.	97.	97.	97.

```
                    CUMULATIVE AREA =     .88 SQ MI

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

                    HYDROGRAPH AT STATION      R16
                     FOR PLAN 1, RATIO = 1.20

PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR      24-HR      72-HR    24.92-HR
  2322.       1.25       (CFS)     248.        62.        60.        60.
                       (INCHES)   2.623      2.623      2.623      2.623
                       (AC-FT)     123.       123.       123.       123.

                    CUMULATIVE AREA =     .88 SQ MI


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


          **************
          *            *
102 KK    *       F2C  *
          *            *
          **************
                    RUNOFF FROM F2C

            SUBBASIN RUNOFF DATA

 4 BA         SUBBASIN CHARACTERISTICS
                   TAREA         .53  SUBBASIN AREA

              PRECIPITATION DATA

 28 PB             STORM        2.83  BASIN TOTAL PRECIPITATION

 29 PI          INCREMENTAL PRECIPITATION PATTERN
                   .01       .01       .01       .02       .02       .02       .06       .06       .06       .17
                   .17       .17       .03       .03       .03       .02       .02       .02       .01       .01
                   .01       .01       .01       .01

105 LU         UNIFORM LOSS RATE
                   STRTL         .65  INITIAL LOSS
                   CNSTL         .06  UNIFORM LOSS RATE
                   RTIMP         .00  PERCENT IMPERVIOUS AREA

106 UD         SCS DIMENSIONLESS UNITGRAPH
                    TLAG         .30  LAG

                                                  ***

                                              UNIT HYDROGRAPH
                                          20 END-OF-PERIOD ORDINATES
            105.      338.      642.      749.      688.      538.      342.      229.      157.      105.
             71.       47.       32.       21.       14.       10.        7.        5.        3.        1.

   TOTAL RAINFALL =    2.83, TOTAL LOSS =     .73, TOTAL EXCESS =    2.10

PEAK FLOW     TIME                        MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR      24-HR      72-HR    24.92-HR
  1098.       1.17       (CFS)     120.        30.        29.        29.
                       (INCHES)   2.101      2.101      2.101      2.101
                       (AC-FT)      59.        59.        59.        59.
```

CUMULATIVE AREA = .53 SQ MI

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HYDROGRAPH AT STATION F2C
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 1.92, TOTAL LOSS = .72, TOTAL EXCESS = 1.20

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
630.	1.25	(CFS)	68.	17.	16.	16.
		(INCHES)	1.201	1.201	1.201	1.201
		(AC-FT)	34.	34.	34.	34.

CUMULATIVE AREA = .53 SQ MI

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

HYDROGRAPH AT STATION F2C
FOR PLAN 1, RATIO = .89

TOTAL RAINFALL = 2.52, TOTAL LOSS = .73, TOTAL EXCESS = 1.79

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
939.	1.17	(CFS)	102.	26.	25.	25.
		(INCHES)	1.792	1.792	1.792	1.792
		(AC-FT)	51.	51.	51.	51.

CUMULATIVE AREA = .53 SQ MI

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

HYDROGRAPH AT STATION F2C
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 2.83, TOTAL LOSS = .73, TOTAL EXCESS = 2.10

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1098.	1.17	(CFS)	120.	30.	29.	29.
		(INCHES)	2.101	2.101	2.101	2.101
		(AC-FT)	59.	59.	59.	59.

CUMULATIVE AREA = .53 SQ MI

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

HYDROGRAPH AT STATION F2C
FOR PLAN 1, RATIO = 1.20

TOTAL RAINFALL = 3.40, TOTAL LOSS = .73, TOTAL EXCESS = 2.66

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1374.	1.17	(CFS)	152.	38.	37.	37.
		(INCHES)	2.664	2.664	2.664	2.664
		(AC-FT)	75.	75.	75.	75.

CUMULATIVE AREA = .53 SQ MI

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          *            *
107 KK    *      17A   *
          *            *
          **************
                    HYDROGRAPH COMBINATION, FLOW FROM 16 AND F2C; ABOVE CONFLUENCE

109 HC          HYDROGRAPH COMBINATION
                     ICOMP          2  NUMBER OF HYDROGRAPHS TO COMBINE

                                                        ***

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

                      HYDROGRAPH AT STATION      17A
                        FOR PLAN 1, RATIO =  .68

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
  1698.       1.25        (CFS)     179.         45.         43.         43.
                        (INCHES)   1.178       1.178       1.178       1.178
                        (AC-FT)     89.         89.         89.         89.

                      CUMULATIVE AREA =    1.41 SQ MI

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

                      HYDROGRAPH AT STATION      17A
                        FOR PLAN 1, RATIO =  .89

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
  2528.       1.25        (CFS)     268.         67.         65.         65.
                        (INCHES)   1.768       1.768       1.768       1.768
                        (AC-FT)     133.        133.        133.        133.

                      CUMULATIVE AREA =    1.41 SQ MI

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

                      HYDROGRAPH AT STATION      17A
                        FOR PLAN 1, RATIO = 1.00

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
  2932.       1.25        (CFS)     315.         79.         76.         76.
                        (INCHES)   2.076       2.076       2.076       2.076
                        (AC-FT)     156.        156.        156.        156.

                      CUMULATIVE AREA =    1.41 SQ MI

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

                      HYDROGRAPH AT STATION      17A
                        FOR PLAN 1, RATIO = 1.20
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PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   3640.      1.25        (CFS)     400.        100.         96.         96.
                        (INCHES)   2.639       2.639       2.639       2.639
                         (AC-FT)    198.        198.        198.        198.

                       CUMULATIVE AREA =    1.41 SQ MI


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


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          *            *
110 KK    *       F2D  *
          *            *
          **************
                          RUNOFF FROM F2D

             SUBBASIN RUNOFF DATA

112 BA         SUBBASIN CHARACTERISTICS
                     TAREA          .23  SUBBASIN AREA

               PRECIPITATION DATA

 28 PB               STORM        2.83  BASIN TOTAL PRECIPITATION

 29 PI           INCREMENTAL PRECIPITATION PATTERN
                     .01       .01       .01       .02       .02       .02       .06       .06       .06       .17
                     .17       .17       .03       .03       .03       .02       .02       .02       .01       .01
                     .01       .01       .01       .01

113 LU         UNIFORM LOSS RATE
                     STRTL         .65  INITIAL LOSS
                     CNSTL         .10  UNIFORM LOSS RATE
                     RTIMP         .00  PERCENT IMPERVIOUS AREA

114 UD         SCS DIMENSIONLESS UNITGRAPH
                      TLAG         .53  LAG

                                                    ***

                                                UNIT HYDROGRAPH
                                          34 END-OF-PERIOD ORDINATES
             12.       35.       72.      122.      166.      190.      194.      185.      165.      140.
            108.       83.       65.       52.       41.       33.       26.       20.       16.       13.
             10.        8.        6.        5.        4.        3.        2.        2.        2.        1.
              1.        1.        0.        0.

   TOTAL RAINFALL =    2.83, TOTAL LOSS =     .78, TOTAL EXCESS =    2.05

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
    318.      1.42        (CFS)      51.         13.         12.         12.
                        (INCHES)   2.048       2.048       2.048       2.048
                         (AC-FT)     25.         25.         25.         25.

                       CUMULATIVE AREA =     .23 SQ MI

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

                       HYDROGRAPH AT STATION      F2D
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FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 1.92, TOTAL LOSS = .77, TOTAL EXCESS = 1.15

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
180.	1.50	(CFS)	29.	7.	7.	7.
		(INCHES)	1.152	1.152	1.152	1.152
		(AC-FT)	14.	14.	14.	14.

CUMULATIVE AREA = .23 SQ MI

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

HYDROGRAPH AT STATION F2D
FOR PLAN 1, RATIO = .89

TOTAL RAINFALL = 2.52, TOTAL LOSS = .78, TOTAL EXCESS = 1.74

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
271.	1.42	(CFS)	43.	11.	10.	10.
		(INCHES)	1.741	1.741	1.741	1.741
		(AC-FT)	21.	21.	21.	21.

CUMULATIVE AREA = .23 SQ MI

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

HYDROGRAPH AT STATION F2D
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 2.83, TOTAL LOSS = .78, TOTAL EXCESS = 2.05

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
318.	1.42	(CFS)	51.	13.	12.	12.
		(INCHES)	2.048	2.048	2.048	2.048
		(AC-FT)	25.	25.	25.	25.

CUMULATIVE AREA = .23 SQ MI

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

HYDROGRAPH AT STATION F2D
FOR PLAN 1, RATIO = 1.20

TOTAL RAINFALL = 3.40, TOTAL LOSS = .79, TOTAL EXCESS = 2.61

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
402.	1.42	(CFS)	65.	16.	16.	16.
		(INCHES)	2.610	2.610	2.610	2.610
		(AC-FT)	32.	32.	32.	32.

CUMULATIVE AREA = .23 SQ MI

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*            *
115 KK      *        17  *
*            *
**************
                    HYDROGRAPH COMBINATION, FLOW FROM F2C, 16 AND F2D; BELOW CONFLUENCE

117 HC          HYDROGRAPH COMBINATION
                     ICOMP          2  NUMBER OF HYDROGRAPHS TO COMBINE

                                                                  ***

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

                       HYDROGRAPH AT STATION       17
                         FOR PLAN 1, RATIO =  .68

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
  1835.       1.25        (CFS)     207.         52.         50.         50.
                        (INCHES)   1.175       1.175       1.175       1.175
                         (AC-FT)   103.        103.        103.        103.

                       CUMULATIVE AREA =    1.64 SQ MI

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

                       HYDROGRAPH AT STATION       17
                         FOR PLAN 1, RATIO =  .89

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
  2746.       1.25        (CFS)     311.         78.         75.         75.
                        (INCHES)   1.764       1.764       1.764       1.764
                         (AC-FT)   154.        154.        154.        154.

                       CUMULATIVE AREA =    1.64 SQ MI

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

                       HYDROGRAPH AT STATION       17
                         FOR PLAN 1, RATIO = 1.00

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
  3193.       1.25        (CFS)     366.         91.         88.         88.
                        (INCHES)   2.073       2.073       2.073       2.073
                         (AC-FT)   181.        181.        181.        181.

                       CUMULATIVE AREA =    1.64 SQ MI

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

                       HYDROGRAPH AT STATION       17
                         FOR PLAN 1, RATIO = 1.20

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
  3978.       1.25        (CFS)     465.        116.        112.        112.
                        (INCHES)   2.634       2.634       2.634       2.634
                         (AC-FT)   230.        230.        230.        230.

                       CUMULATIVE AREA =    1.64 SQ MI
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          *            *
118 KK    *       R17  *
          *            *
          **************
                         ROUTING 17 TO 19A

             HYDROGRAPH ROUTING DATA

120 RM          MUSKINGUM ROUTING
                      NSTPS         1 NUMBER OF SUBREACHES
                      AMSKK       .17 MUSKINGUM K
                          X       .20 MUSKINGUM X

                                                                  ***

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

                       HYDROGRAPH AT STATION      R17
                         FOR PLAN 1, RATIO =  .68

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
   1587.      1.42       (CFS)     207.         52.         50.         50.
                       (INCHES)   1.175       1.175       1.175       1.175
                        (AC-FT)    103.        103.        103.        103.

                      CUMULATIVE AREA =    1.64 SQ MI

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

                       HYDROGRAPH AT STATION      R17
                         FOR PLAN 1, RATIO =  .89

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
   2377.      1.42       (CFS)     311.         78.         75.         75.
                       (INCHES)   1.764       1.764       1.764       1.764
                        (AC-FT)    154.        154.        154.        154.

                      CUMULATIVE AREA =    1.64 SQ MI

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

                       HYDROGRAPH AT STATION      R17
                         FOR PLAN 1, RATIO = 1.00

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
   2773.      1.42       (CFS)     366.         91.         88.         88.
                       (INCHES)   2.073       2.073       2.073       2.073
                        (AC-FT)    181.        181.        181.        181.

                      CUMULATIVE AREA =    1.64 SQ MI

    ***             ***             ***             ***             ***
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HYDROGRAPH AT STATION R17
FOR PLAN 1, RATIO = 1.20

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
3473.	1.42	(CFS)	465.	116.	112.	112.
		(INCHES)	2.634	2.634	2.634	2.634
		(AC-FT)	230.	230.	230.	230.

CUMULATIVE AREA = 1.64 SQ MI

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          *            *
121 KK    *       F2F  *
          *            *
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RUNOFF FROM F2F

SUBBASIN RUNOFF DATA

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123 BA        SUBBASIN CHARACTERISTICS
                   TAREA          .17  SUBBASIN AREA

              PRECIPITATION DATA

8 PB               STORM         2.83  BASIN TOTAL PRECIPITATION

29 PI           INCREMENTAL PRECIPITATION PATTERN
                   .01      .01      .01      .02      .02      .02      .06      .06      .06      .17
                   .17      .17      .03      .03      .03      .02      .02      .02      .01      .01
                   .01      .01      .01      .01

124 LU        UNIFORM LOSS RATE
                   STRTL          .65  INITIAL LOSS
                   CNSTL          .06  UNIFORM LOSS RATE
                   RTIMP          .00  PERCENT IMPERVIOUS AREA

125 UD        SCS DIMENSIONLESS UNITGRAPH
                   TLAG           .22  LAG
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UNIT HYDROGRAPH
15 END-OF-PERIOD ORDINATES

67.	226.	313.	276.	179.	102.	62.	37.	22.	13.
8.	5.	3.	2.	1.					

TOTAL RAINFALL = 2.83, TOTAL LOSS = .73, TOTAL EXCESS = 2.10

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
419.	1.08	(CFS)	38.	10.	9.	9.
		(INCHES)	2.101	2.101	2.101	2.101
		(AC-FT)	19.	19.	19.	19.

CUMULATIVE AREA = .17 SQ MI

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

HYDROGRAPH AT STATION F2F
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 1.92, TOTAL LOSS = .72, TOTAL EXCESS = 1.20

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
242.	1.17	(CFS)	22.	5.	5.	5.
		(INCHES)	1.201	1.201	1.201	1.201
		(AC-FT)	11.	11.	11.	11.

CUMULATIVE AREA = .17 SQ MI

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

HYDROGRAPH AT STATION F2F
FOR PLAN 1, RATIO = .89

TOTAL RAINFALL = 2.52, TOTAL LOSS = .73, TOTAL EXCESS = 1.79

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
360.	1.08	(CFS)	33.	8.	8.	8.
		(INCHES)	1.792	1.792	1.792	1.792
		(AC-FT)	16.	16.	16.	16.

CUMULATIVE AREA = .17 SQ MI

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

HYDROGRAPH AT STATION F2F
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 2.83, TOTAL LOSS = .73, TOTAL EXCESS = 2.10

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
419.	1.08	(CFS)	38.	10.	9.	9.
		(INCHES)	2.101	2.101	2.101	2.101
		(AC-FT)	19.	19.	19.	19.

CUMULATIVE AREA = .17 SQ MI

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

HYDROGRAPH AT STATION F2F
FOR PLAN 1, RATIO = 1.20

TOTAL RAINFALL = 3.40, TOTAL LOSS = .73, TOTAL EXCESS = 2.66

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
520.	1.08	(CFS)	49.	12.	12.	12.
		(INCHES)	2.664	2.664	2.664	2.664
		(AC-FT)	24.	24.	24.	24.

CUMULATIVE AREA = .17 SQ MI

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*            *
5 KK     *      19A   *
*            *
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HYDROGRAPH COMBINATION, FLOW FROM 17 AND F2F; ABOVE CONFLUENCE

128 HC HYDROGRAPH COMBINATION
ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

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HYDROGRAPH AT STATION 19A
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1692.	1.42	(CFS)	229.	57.	55.	55.
		(INCHES)	1.177	1.177	1.177	1.177
		(AC-FT)	114.	114.	114.	114.

CUMULATIVE AREA = 1.81 SQ MI

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

HYDROGRAPH AT STATION 19A
FOR PLAN 1, RATIO = .89

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
2523.	1.42	(CFS)	344.	86.	83.	83.
		(INCHES)	1.767	1.767	1.767	1.767
		(AC-FT)	171.	171.	171.	171.

CUMULATIVE AREA = 1.81 SQ MI

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

HYDROGRAPH AT STATION 19A
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
2940.	1.42	(CFS)	404.	101.	97.	97.
		(INCHES)	2.075	2.075	2.075	2.075
		(AC-FT)	200.	200.	200.	200.

CUMULATIVE AREA = 1.81 SQ MI

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

HYDROGRAPH AT STATION 19A
FOR PLAN 1, RATIO = 1.20

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
3678.	1.33	(CFS)	513.	128.	124.	124.
		(INCHES)	2.637	2.637	2.637	2.637
		(AC-FT)	255.	255.	255.	255.

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                    CUMULATIVE AREA =    1.81 SQ MI

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129 KK    *       F2A  *
          *            *
          **************
                    RUNOFF FROM F2A

             SUBBASIN RUNOFF DATA

131 BA          SUBBASIN CHARACTERISTICS
                      TAREA          .29  SUBBASIN AREA

                PRECIPITATION DATA

 28 PB                STORM        2.83  BASIN TOTAL PRECIPITATION

 29 PI            INCREMENTAL PRECIPITATION PATTERN
                      .01       .01       .01       .02       .02       .02       .06       .06       .06       .17
                      .17       .17       .03       .03       .03       .02       .02       .02       .01       .01
                      .01       .01       .01       .01

132 LU          UNIFORM LOSS RATE
                      STRTL          .65  INITIAL LOSS
                      CNSTL          .06  UNIFORM LOSS RATE
                      RTIMP          .00  PERCENT IMPERVIOUS AREA

133 UD          SCS DIMENSIONLESS UNITGRAPH
                       TLAG          .30  LAG

                                                    ***

                                                UNIT HYDROGRAPH
                                           20 END-OF-PERIOD ORDINATES
             57.      185.      351.      410.      377.      295.      187.      125.       86.       57.
             39.       26.       17.       12.        8.        5.        4.        3.        2.        1.

   TOTAL RAINFALL =    2.83, TOTAL LOSS =     .73, TOTAL EXCESS =    2.10

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
   601.       1.17       (CFS)      66.         16.         16.         16.
                        (INCHES)   2.101       2.101       2.101       2.101
                        (AC-FT)     32.         32.         32.         32.

                       CUMULATIVE AREA =     .29 SQ MI

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

                     HYDROGRAPH AT STATION      F2A
                       FOR PLAN 1, RATIO =  .68

   TOTAL RAINFALL =    1.92, TOTAL LOSS =     .72, TOTAL EXCESS =    1.20

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
   345.       1.25       (CFS)      37.          9.          9.          9.
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(INCHES)	1.201	1.201	1.201	1.201
(AC-FT)	19.	19.	19.	19.

CUMULATIVE AREA = .29 SQ MI

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HYDROGRAPH AT STATION F2A
FOR PLAN 1, RATIO = .89

TOTAL RAINFALL = 2.52, TOTAL LOSS = .73, TOTAL EXCESS = 1.79

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
514.	1.17	(CFS)	56.	14.	13.	13.
		(INCHES)	1.792	1.792	1.792	1.792
		(AC-FT)	28.	28.	28.	28.

CUMULATIVE AREA = .29 SQ MI

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

HYDROGRAPH AT STATION F2A
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 2.83, TOTAL LOSS = .73, TOTAL EXCESS = 2.10

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
601.	1.17	(CFS)	66.	16.	16.	16.
		(INCHES)	2.101	2.101	2.101	2.101
		(AC-FT)	32.	32.	32.	32.

CUMULATIVE AREA = .29 SQ MI

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

HYDROGRAPH AT STATION F2A
FOR PLAN 1, RATIO = 1.20

TOTAL RAINFALL = 3.40, TOTAL LOSS = .73, TOTAL EXCESS = 2.66

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
752.	1.17	(CFS)	83.	21.	20.	20.
		(INCHES)	2.664	2.664	2.664	2.664
		(AC-FT)	41.	41.	41.	41.

CUMULATIVE AREA = .29 SQ MI

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              *            *
134 KK        *     F2B    *
              *            *
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RUNOFF FROM F2B

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              SUBBASIN RUNOFF DATA

136 BA          SUBBASIN CHARACTERISTICS
                     TAREA          .43  SUBBASIN AREA

                PRECIPITATION DATA

 28 PB               STORM        2.83  BASIN TOTAL PRECIPITATION

 29 PI            INCREMENTAL PRECIPITATION PATTERN
                     .01       .01       .01       .02       .02       .02       .06       .06       .06       .17
                     .17       .17       .03       .03       .03       .02       .02       .02       .01       .01
                     .01       .01       .01       .01

137 LU          UNIFORM LOSS RATE
                     STRTL          .65  INITIAL LOSS
                     CNSTL          .06  UNIFORM LOSS RATE
                     RTIMP          .00  PERCENT IMPERVIOUS AREA

138 UD          SCS DIMENSIONLESS UNITGRAPH
                      TLAG          .30  LAG

                                                    ***

                                                UNIT HYDROGRAPH
                                           20 END-OF-PERIOD ORDINATES
              85.      275.      521.      608.      558.      437.      277.      186.      127.       85.
              58.       38.       26.       17.       12.        8.        6.        4.        2.        1.

   TOTAL RAINFALL =    2.83, TOTAL LOSS =     .73, TOTAL EXCESS =    2.10

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   891.       1.17       (CFS)       97.         24.         23.         23.
                        (INCHES)    2.101       2.101       2.101       2.101
                        (AC-FT)      48.         48.         48.         48.

                        CUMULATIVE AREA =     .43 SQ MI

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

                       HYDROGRAPH AT STATION      F2B
                         FOR PLAN 1, RATIO =  .68

   TOTAL RAINFALL =    1.92, TOTAL LOSS =     .72, TOTAL EXCESS =    1.20

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   511.       1.25       (CFS)       56.         14.         13.         13.
                        (INCHES)    1.201       1.201       1.201       1.201
                        (AC-FT)      28.         28.         28.         28.

                        CUMULATIVE AREA =     .43 SQ MI

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

                       HYDROGRAPH AT STATION      F2B
                         FOR PLAN 1, RATIO =  .89

   TOTAL RAINFALL =    2.52, TOTAL LOSS =     .73, TOTAL EXCESS =    1.79

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   762.       1.17       (CFS)       83.         21.         20.         20.
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                    (INCHES)     1.792       1.792       1.792       1.792
                     (AC-FT)      41.         41.         41.         41.

                    CUMULATIVE AREA =     .43 SQ MI


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

                     HYDROGRAPH AT STATION      F2B
                       FOR PLAN 1, RATIO = 1.00

   TOTAL RAINFALL =    2.83, TOTAL LOSS =     .73, TOTAL EXCESS =    2.10

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
   891.       1.17       (CFS)      97.         24.         23.         23.
                       (INCHES)    2.101       2.101       2.101       2.101
                        (AC-FT)     48.         48.         48.         48.

                    CUMULATIVE AREA =     .43 SQ MI


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

                     HYDROGRAPH AT STATION      F2B
                       FOR PLAN 1, RATIO = 1.20

   TOTAL RAINFALL =    3.40, TOTAL LOSS =     .73, TOTAL EXCESS =    2.66

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
  1114.       1.17       (CFS)     123.         31.         30.         30.
                       (INCHES)    2.664       2.664       2.664       2.664
                        (AC-FT)     61.         61.         61.         61.

                    CUMULATIVE AREA =     .43 SQ MI


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


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          *            *
139 KK    *        18  *
          *            *
          **************
                    HYDROGRAPH COMBINATION, FLOW FROM F2A AND F2B

141 HC          HYDROGRAPH COMBINATION
                     ICOMP           2  NUMBER OF HYDROGRAPHS TO COMBINE

                                                          ***

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

                     HYDROGRAPH AT STATION       18
                       FOR PLAN 1, RATIO =  .68

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
   856.       1.25       (CFS)      93.         23.         22.         22.
                       (INCHES)    1.201       1.201       1.201       1.201
                        (AC-FT)     46.         46.         46.         46.
```

CUMULATIVE AREA = .72 SQ MI

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

HYDROGRAPH AT STATION 18
FOR PLAN 1, RATIO = .89

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1275.	1.17	(CFS)	139.	35.	33.	33.
		(INCHES)	1.792	1.792	1.792	1.792
		(AC-FT)	69.	69.	69.	69.

CUMULATIVE AREA = .72 SQ MI

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

HYDROGRAPH AT STATION 18
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1492.	1.17	(CFS)	163.	41.	39.	39.
		(INCHES)	2.101	2.101	2.101	2.101
		(AC-FT)	81.	81.	81.	81.

CUMULATIVE AREA = .72 SQ MI

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

HYDROGRAPH AT STATION 18
FOR PLAN 1, RATIO = 1.20

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1866.	1.17	(CFS)	206.	52.	50.	50.
		(INCHES)	2.664	2.664	2.664	2.664
		(AC-FT)	102.	102.	102.	102.

CUMULATIVE AREA = .72 SQ MI

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              *            *
142 KK        *       R18  *
              *            *
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ROUTING 18 TO 19B

HYDROGRAPH ROUTING DATA

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144 RM          MUSKINGUM ROUTING
                     NSTPS         1 NUMBER OF SUBREACHES
                     AMSKK       .12 MUSKINGUM K
                         X       .20 MUSKINGUM X
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                HYDROGRAPH AT STATION      R18
                  FOR PLAN 1, RATIO =  .68

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
   791.       1.33       (CFS)      93.         23.         22.         22.
                       (INCHES)    1.201       1.201       1.201       1.201
                       (AC-FT)     46.         46.         46.         46.

                     CUMULATIVE AREA =     .72 SQ MI


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

                HYDROGRAPH AT STATION      R18
                  FOR PLAN 1, RATIO =  .89

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
  1179.       1.33       (CFS)     139.         35.         33.         33.
                       (INCHES)    1.792       1.792       1.792       1.792
                       (AC-FT)     69.         69.         69.         69.

                     CUMULATIVE AREA =     .72 SQ MI


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

                HYDROGRAPH AT STATION      R18
                  FOR PLAN 1, RATIO = 1.00

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
  1371.       1.33       (CFS)     163.         41.         39.         39.
                       (INCHES)    2.101       2.101       2.101       2.101
                       (AC-FT)     81.         81.         81.         81.

                     CUMULATIVE AREA =     .72 SQ MI


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

                HYDROGRAPH AT STATION      R18
                  FOR PLAN 1, RATIO = 1.20

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
  1708.       1.33       (CFS)     206.         52.         50.         50.
                       (INCHES)    2.664       2.664       2.664       2.664
                       (AC-FT)     102.        102.        102.        102.

                     CUMULATIVE AREA =     .72 SQ MI


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


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          *            *
145 KK    *      F2E   *
          *            *
          **************
```

RUNOFF FROM F2E

SUBBASIN RUNOFF DATA

7 BA SUBBASIN CHARACTERISTICS

TAREA .23 SUBBASIN AREA

PRECIPITATION DATA

28 PB STORM 2.83 BASIN TOTAL PRECIPITATION

29 PI INCREMENTAL PRECIPITATION PATTERN

.01	.01	.01	.02	.02	.02	.06	.06	.06	.17
.17	.17	.03	.03	.03	.02	.02	.02	.01	.01
.01	.01	.01	.01						

148 LU UNIFORM LOSS RATE

STRTL .65 INITIAL LOSS

CNSTL .06 UNIFORM LOSS RATE

RTIMP .00 PERCENT IMPERVIOUS AREA

149 UD SCS DIMENSIONLESS UNITGRAPH

TLAG .31 LAG

***

UNIT HYDROGRAPH

21 END-OF-PERIOD ORDINATES

42.	135.	263.	315.	297.	240.	159.	105.	73.	49.
34.	23.	15.	11.	7.	5.	3.	2.	2.	1.
0.									

TOTAL RAINFALL = 2.83, TOTAL LOSS = .73, TOTAL EXCESS = 2.10

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
463.	1.17	(CFS)	52.	13.	13.	13.
		(INCHES)	2.101	2.101	2.101	2.101
		(AC-FT)	26.	26.	26.	26.

CUMULATIVE AREA = .23 SQ MI

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

HYDROGRAPH AT STATION F2E

FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 1.92, TOTAL LOSS = .72, TOTAL EXCESS = 1.20

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
269.	1.25	(CFS)	30.	7.	7.	7.
		(INCHES)	1.201	1.201	1.201	1.201
		(AC-FT)	15.	15.	15.	15.

CUMULATIVE AREA = .23 SQ MI

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HYDROGRAPH AT STATION F2E

FOR PLAN 1, RATIO = .89

TOTAL RAINFALL = 2.52, TOTAL LOSS = .73, TOTAL EXCESS = 1.79

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PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   397.       1.25       (CFS)       44.         11.         11.         11.
                       (INCHES)    1.792       1.792       1.792       1.792
                       (AC-FT)       22.         22.         22.         22.

                       CUMULATIVE AREA =     .23 SQ MI


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

                       HYDROGRAPH AT STATION      F2E
                         FOR PLAN 1, RATIO = 1.00

   TOTAL RAINFALL =    2.83, TOTAL LOSS =     .73, TOTAL EXCESS =    2.10

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   463.       1.17       (CFS)       52.         13.         13.         13.
                       (INCHES)    2.101       2.101       2.101       2.101
                       (AC-FT)       26.         26.         26.         26.

                       CUMULATIVE AREA =     .23 SQ MI


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

                       HYDROGRAPH AT STATION      F2E
                         FOR PLAN 1, RATIO = 1.20

   TOTAL RAINFALL =    3.40, TOTAL LOSS =     .73, TOTAL EXCESS =    2.66

AK FLOW       TIME                          MAXIMUM AVERAGE FLOW
(CFS)         (HR)                  6-HR       24-HR       72-HR     24.92-HR
   581.       1.17       (CFS)       66.         16.         16.         16.
                       (INCHES)    2.664       2.664       2.664       2.664
                       (AC-FT)       33.         33.         33.         33.

                       CUMULATIVE AREA =     .23 SQ MI


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


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          *            *
150 KK    *      19B   *
          *            *
          **************
                       HYDROGRAPH COMBINATION, FLOW FROM 18 AND F2E;
                       ABOVE CONFLUENCE WITH WILLOW SPRINGS WASH

153 HC          HYDROGRAPH COMBINATION
                     ICOMP           2  NUMBER OF HYDROGRAPHS TO COMBINE

                                                          ***

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

                       HYDROGRAPH AT STATION      19B
                         FOR PLAN 1, RATIO =  .68

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
```

1032.	1.33	(CFS)	123.	31.	30.	30.
		(INCHES)	1.201	1.201	1.201	1.201
		(AC-FT)	61.	61.	61.	61.

CUMULATIVE AREA = .95 SQ MI

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

HYDROGRAPH AT STATION 19B
FOR PLAN 1, RATIO = .89

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1526.	1.33	(CFS)	183.	46.	44.	44.
		(INCHES)	1.792	1.792	1.792	1.792
		(AC-FT)	91.	91.	91.	91.

CUMULATIVE AREA = .95 SQ MI

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

HYDROGRAPH AT STATION 19B
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1780.	1.25	(CFS)	215.	54.	52.	52.
		(INCHES)	2.101	2.101	2.101	2.101
		(AC-FT)	106.	106.	106.	106.

CUMULATIVE AREA = .95 SQ MI

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

HYDROGRAPH AT STATION 19B
FOR PLAN 1, RATIO = 1.20

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
2237.	1.25	(CFS)	272.	68.	66.	66.
		(INCHES)	2.664	2.664	2.664	2.664
		(AC-FT)	135.	135.	135.	135.

CUMULATIVE AREA = .95 SQ MI

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              **************
              *            *
154 KK        *        19  *
              *            *
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HYDROGRAPH COMBINATION, FLOW FROM 17, 18, 19A AND 19B; BELOW CONFLUENCE

66 HC HYDROGRAPH COMBINATION
ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

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

HYDROGRAPH AT STATION 19
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
2652.	1.33	(CFS)	352.	88.	85.	85.
		(INCHES)	1.185	1.185	1.185	1.185
		(AC-FT)	174.	174.	174.	174.

CUMULATIVE AREA = 2.76 SQ MI

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

HYDROGRAPH AT STATION 19
FOR PLAN 1, RATIO = .89

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
4004.	1.33	(CFS)	527.	132.	127.	127.
		(INCHES)	1.776	1.776	1.776	1.776
		(AC-FT)	261.	261.	261.	261.

CUMULATIVE AREA = 2.76 SQ MI

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

HYDROGRAPH AT STATION 19
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
4682.	1.33	(CFS)	619.	155.	149.	149.
		(INCHES)	2.084	2.084	2.084	2.084
		(AC-FT)	307.	307.	307.	307.

CUMULATIVE AREA = 2.76 SQ MI

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

HYDROGRAPH AT STATION 19
FOR PLAN 1, RATIO = 1.20

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
5877.	1.33	(CFS)	786.	196.	189.	189.
		(INCHES)	2.647	2.647	2.647	2.647
		(AC-FT)	390.	390.	390.	390.

CUMULATIVE AREA = 2.76 SQ MI

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          *            *
157 KK    *      R19   *
          *            *
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ROUTING 19 TO 31A

HYDROGRAPH ROUTING DATA

RM MUSKINGUM ROUTING

NSTPS	2	NUMBER OF SUBREACHES
AMSKK	.16	MUSKINGUM K
X	.20	MUSKINGUM X

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

HYDROGRAPH AT STATION R19
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
2508.	1.50	(CFS)	352.	88.	85.	85.
		(INCHES)	1.185	1.185	1.185	1.185
		(AC-FT)	174.	174.	174.	174.

CUMULATIVE AREA = 2.76 SQ MI

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HYDROGRAPH AT STATION R19
FOR PLAN 1, RATIO = .89

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
3786.	1.50	(CFS)	527.	132.	127.	127.
		(INCHES)	1.776	1.776	1.776	1.776
		(AC-FT)	261.	261.	261.	261.

CUMULATIVE AREA = 2.76 SQ MI

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

HYDROGRAPH AT STATION R19
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
4432.	1.50	(CFS)	619.	155.	149.	149.
		(INCHES)	2.084	2.084	2.084	2.084
		(AC-FT)	307.	307.	307.	307.

CUMULATIVE AREA = 2.76 SQ MI

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

HYDROGRAPH AT STATION R19
FOR PLAN 1, RATIO = 1.20

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
5572.	1.50	(CFS)	786.	196.	189.	189.
		(INCHES)	2.647	2.647	2.647	2.647
		(AC-FT)	390.	390.	390.	390.

CUMULATIVE AREA = 2.76 SQ MI

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

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          *            *
160 KK    *        F2  *
          *            *
          **************
                         RUNOFF FROM F2

             SUBBASIN RUNOFF DATA

162 BA          SUBBASIN CHARACTERISTICS
                      TAREA          .33  SUBBASIN AREA

                PRECIPITATION DATA

 28 PB                STORM        2.83  BASIN TOTAL PRECIPITATION

 29 PI            INCREMENTAL PRECIPITATION PATTERN
                      .01       .01       .01       .02       .02       .02       .06       .06       .06       .17
                      .17       .17       .03       .03       .03       .02       .02       .02       .01       .01
                      .01       .01       .01       .01

163 LU          UNIFORM LOSS RATE
                      STRTL          .65  INITIAL LOSS
                      CNSTL          .09  UNIFORM LOSS RATE
                      RTIMP          .00  PERCENT IMPERVIOUS AREA

164 UD          SCS DIMENSIONLESS UNITGRAPH
                       TLAG          .32  LAG

                                                   ***

                                                UNIT HYDROGRAPH
                                           21 END-OF-PERIOD ORDINATES
             56.      179.      355.      437.      422.      350.      241.      160.      111.       77.
             53.       36.       24.       17.       12.        8.        6.        4.        3.        2.
              1.

   TOTAL RAINFALL =    2.83, TOTAL LOSS =     .77, TOTAL EXCESS =    2.06

 PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)        (HR)                  6-HR       24-HR       72-HR     24.92-HR
   647.        1.25        (CFS)      73.         18.         18.         18.
                         (INCHES)   2.055      2.055       2.055       2.055
                         (AC-FT)     36.         36.         36.         36.

                         CUMULATIVE AREA =     .33 SQ MI


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

                      HYDROGRAPH AT STATION       F2
                        FOR PLAN 1, RATIO =  .68

   TOTAL RAINFALL =    1.92, TOTAL LOSS =     .77, TOTAL EXCESS =    1.16

 PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)        (HR)                  6-HR       24-HR       72-HR     24.92-HR
   375.        1.25        (CFS)      41.         10.         10.         10.
                         (INCHES)   1.158      1.158       1.158       1.158
                         (AC-FT)     20.         20.         20.         20.
```

CUMULATIVE AREA = .33 SQ MI

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

HYDROGRAPH AT STATION F2
FOR PLAN 1, RATIO = .89

TOTAL RAINFALL = 2.52, TOTAL LOSS = .77, TOTAL EXCESS = 1.75

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
557.	1.25	(CFS)	62.	16.	15.	15.
		(INCHES)	1.747	1.747	1.747	1.747
		(AC-FT)	31.	31.	31.	31.

CUMULATIVE AREA = .33 SQ MI

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

HYDROGRAPH AT STATION F2
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 2.83, TOTAL LOSS = .77, TOTAL EXCESS = 2.06

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
647.	1.25	(CFS)	73.	18.	18.	18.
		(INCHES)	2.055	2.055	2.055	2.055
		(AC-FT)	36.	36.	36.	36.

CUMULATIVE AREA = .33 SQ MI

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

HYDROGRAPH AT STATION F2
FOR PLAN 1, RATIO = 1.20

TOTAL RAINFALL = 3.40, TOTAL LOSS = .78, TOTAL EXCESS = 2.62

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
805.	1.17	(CFS)	93.	23.	22.	22.
		(INCHES)	2.616	2.616	2.616	2.616
		(AC-FT)	46.	46.	46.	46.

CUMULATIVE AREA = .33 SQ MI

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          *            *
165 KK    *      31A   *
          *            *
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HYDROGRAPH COMBINATION, FLOW FROM 19 AND F2; ABOVE CONFLUENCE

167 HC HYDROGRAPH COMBINATION
ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

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

HYDROGRAPH AT STATION 31A
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
2728.	1.50	(CFS)	393.	98.	95.	95.
		(INCHES)	1.182	1.182	1.182	1.182
		(AC-FT)	195.	195.	195.	195.

CUMULATIVE AREA = 3.09 SQ MI

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

HYDROGRAPH AT STATION 31A
FOR PLAN 1, RATIO = .89

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
4100.	1.50	(CFS)	589.	147.	142.	142.
		(INCHES)	1.772	1.772	1.772	1.772
		(AC-FT)	292.	292.	292.	292.

CUMULATIVE AREA = 3.09 SQ MI

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

HYDROGRAPH AT STATION 31A
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
4792.	1.50	(CFS)	692.	173.	167.	167.
		(INCHES)	2.081	2.081	2.081	2.081
		(AC-FT)	343.	343.	343.	343.

CUMULATIVE AREA = 3.09 SQ MI

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

HYDROGRAPH AT STATION 31A
FOR PLAN 1, RATIO = 1.20

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
6016.	1.50	(CFS)	878.	220.	212.	212.
		(INCHES)	2.643	2.643	2.643	2.643
		(AC-FT)	436.	436.	436.	436.

CUMULATIVE AREA = 3.09 SQ MI

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168 KK      *       F1A  *
            *            *
            **************
                        RUNOFF FROM WILLOW SPRINGS TRIBUTARY 1A

              SUBBASIN RUNOFF DATA

170 BA          SUBBASIN CHARACTERISTICS
                      TAREA          .27  SUBBASIN AREA

                PRECIPITATION DATA

 28 PB                STORM         2.83  BASIN TOTAL PRECIPITATION

 29 PI            INCREMENTAL PRECIPITATION PATTERN
                      .01       .01       .01       .02       .02       .02       .06       .06       .06       .17
                      .17       .17       .03       .03       .03       .02       .02       .02       .01       .01
                      .01       .01       .01       .01

171 LU          UNIFORM LOSS RATE
                      STRTL          .65  INITIAL LOSS
                      CNSTL          .10  UNIFORM LOSS RATE
                      RTIMP          .00  PERCENT IMPERVIOUS AREA

172 UD          SCS DIMENSIONLESS UNITGRAPH
                       TLAG          .60  LAG

                                                  ***

                                                UNIT HYDROGRAPH
                                           38 END-OF-PERIOD ORDINATES
            10.       31.       61.      103.      150.      185.      202.      203.      193.      175.
           153.      124.       96.       77.       62.       51.       42.       34.       27.       22.
            18.       14.       11.        9.        8.        6.        5.        4.        3.        3.
             2.        2.        2.        1.        1.        1.        0.        0.

   TOTAL RAINFALL =    2.83, TOTAL LOSS =     .78, TOTAL EXCESS =    2.05

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   341.       1.50        (CFS)      59.         15.         14.         14.
                         (INCHES)  2.048       2.048       2.048       2.048
                         (AC-FT)    29.         29.         29.         29.

                         CUMULATIVE AREA =     .27 SQ MI

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

                       HYDROGRAPH AT STATION      F1A
                         FOR PLAN 1, RATIO =  .68

   TOTAL RAINFALL =    1.92, TOTAL LOSS =     .77, TOTAL EXCESS =    1.15

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   192.       1.58        (CFS)      33.          8.          8.          8.
                         (INCHES)  1.152       1.152       1.152       1.152
                         (AC-FT)    17.         17.         17.         17.

                         CUMULATIVE AREA =     .27 SQ MI

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

                       HYDROGRAPH AT STATION      F1A
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                    FOR PLAN 1, RATIO =  .89

  TOTAL RAINFALL =    2.52, TOTAL LOSS =     .78, TOTAL EXCESS =    1.74

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
 (CFS)        (HR)                  6-HR       24-HR       72-HR     24.92-HR
  290.        1.50       (CFS)       51.         13.         12.         12.
                       (INCHES)     1.741       1.741       1.741       1.741
                       (AC-FT)       25.         25.         25.         25.

                       CUMULATIVE AREA =     .27 SQ MI


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

                    HYDROGRAPH AT STATION      F1A
                      FOR PLAN 1, RATIO = 1.00

  TOTAL RAINFALL =    2.83, TOTAL LOSS =     .78, TOTAL EXCESS =    2.05

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
 (CFS)        (HR)                  6-HR       24-HR       72-HR     24.92-HR
  341.        1.50       (CFS)       59.         15.         14.         14.
                       (INCHES)     2.048       2.048       2.048       2.048
                       (AC-FT)       29.         29.         29.         29.

                       CUMULATIVE AREA =     .27 SQ MI


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

                    HYDROGRAPH AT STATION      F1A
                      FOR PLAN 1, RATIO = 1.20

  TOTAL RAINFALL =    3.40, TOTAL LOSS =     .79, TOTAL EXCESS =    2.61

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
 (CFS)        (HR)                  6-HR       24-HR       72-HR     24.92-HR
  431.        1.50       (CFS)       76.         19.         18.         18.
                       (INCHES)     2.610       2.610       2.610       2.610
                       (AC-FT)       38.         38.         38.         38.

                       CUMULATIVE AREA =     .27 SQ MI


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          *            *
173 KK    *      F1B   *
          *            *
          **************
                    RUNOFF FROM F1B

            SUBBASIN RUNOFF DATA

175 BA        SUBBASIN CHARACTERISTICS
                   TAREA          .56  SUBBASIN AREA

              PRECIPITATION DATA

 28 PB             STORM         2.83  BASIN TOTAL PRECIPITATION
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 29 PI          INCREMENTAL PRECIPITATION PATTERN
                  .01      .01      .01      .02      .02      .02      .06      .06      .06      .17
                  .17      .17      .03      .03      .03      .02      .02      .02      .01      .01
                  .01      .01      .01      .01

176 LU          UNIFORM LOSS RATE
                     STRTL        .65  INITIAL LOSS
                     CNSTL        .08  UNIFORM LOSS RATE
                     RTIMP        .00  PERCENT IMPERVIOUS AREA

177 UD          SCS DIMENSIONLESS UNITGRAPH
                     TLAG         .71  LAG

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                                              UNIT HYDROGRAPH
                                          45 END-OF-PERIOD ORDINATES
            14.      43.      83.     138.     208.     277.     328.     357.     363.     358.
           333.     303.     268.     224.     180.     148.     123.     102.      88.      73.
            61.      51.      42.      36.      30.      25.      20.      17.      14.      12.
            10.       8.       7.       6.       5.       4.       4.       3.       3.       2.
             2.       1.       1.       0.       0.

   TOTAL RAINFALL =    2.83, TOTAL LOSS =     .76, TOTAL EXCESS =    2.07

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   629.       1.67       (CFS)      126.         32.         30.         30.
                       (INCHES)    2.075       2.075       2.075       2.075
                       (AC-FT)      63.         63.         63.         63.

                       CUMULATIVE AREA =     .56 SQ MI

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

                       HYDROGRAPH AT STATION      F1B
                         FOR PLAN 1, RATIO =  .68

   TOTAL RAINFALL =    1.92, TOTAL LOSS =     .75, TOTAL EXCESS =    1.18

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   358.       1.67       (CFS)       72.         18.         17.         17.
                       (INCHES)    1.177       1.177       1.177       1.177
                       (AC-FT)      35.         35.         35.         35.

                       CUMULATIVE AREA =     .56 SQ MI

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

                       HYDROGRAPH AT STATION      F1B
                         FOR PLAN 1, RATIO =  .89

   TOTAL RAINFALL =    2.52, TOTAL LOSS =     .75, TOTAL EXCESS =    1.77

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   537.       1.67       (CFS)      107.         27.         26.         26.
                       (INCHES)    1.766       1.766       1.766       1.766
                       (AC-FT)      53.         53.         53.         53.

                       CUMULATIVE AREA =     .56 SQ MI
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***            ***            ***            ***            ***

                    HYDROGRAPH AT STATION      F1B
                      FOR PLAN 1, RATIO = 1.00

 TOTAL RAINFALL =    2.83, TOTAL LOSS =     .76, TOTAL EXCESS =    2.07

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   629.       1.67       (CFS)      126.         32.         30.         30.
                       (INCHES)    2.075       2.075       2.075       2.075
                       (AC-FT)      63.         63.         63.         63.

                      CUMULATIVE AREA =     .56 SQ MI


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

                    HYDROGRAPH AT STATION      F1B
                      FOR PLAN 1, RATIO = 1.20

 TOTAL RAINFALL =    3.40, TOTAL LOSS =     .76, TOTAL EXCESS =    2.64

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   794.       1.67       (CFS)      160.         40.         39.         39.
                       (INCHES)    2.637       2.637       2.637       2.637
                       (AC-FT)      79.         79.         79.         79.

                      CUMULATIVE AREA =     .56 SQ MI


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          *            *
178 KK    *        32  *
          *            *
          **************
                    HYDROGRAPH COMBINATION, FLOW FROM F1A AND F1B

180 HC          HYDROGRAPH COMBINATION
                     ICOMP           2  NUMBER OF HYDROGRAPHS TO COMBINE

                                                          ***

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

                    HYDROGRAPH AT STATION       32
                      FOR PLAN 1, RATIO =  .68

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   543.       1.58       (CFS)      105.         26.         25.         25.
                       (INCHES)    1.169       1.169       1.169       1.169
                       (AC-FT)      52.         52.         52.         52.

                      CUMULATIVE AREA =     .84 SQ MI


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

                    HYDROGRAPH AT STATION       32
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                    FOR PLAN 1, RATIO =  .89

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   820.       1.58        (CFS)     158.         39.         38.         38.
                        (INCHES)   1.758       1.758       1.758       1.758
                         (AC-FT)    78.         78.         78.         78.

                       CUMULATIVE AREA =     .84 SQ MI


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

                     HYDROGRAPH AT STATION       32
                       FOR PLAN 1, RATIO = 1.00

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   962.       1.58        (CFS)     186.         46.         45.         45.
                        (INCHES)   2.066       2.066       2.066       2.066
                         (AC-FT)    92.         92.         92.         92.

                       CUMULATIVE AREA =     .84 SQ MI


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

                     HYDROGRAPH AT STATION       32
                       FOR PLAN 1, RATIO = 1.20

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
  1216.       1.58        (CFS)     236.         59.         57.         57.
                        (INCHES)   2.628       2.628       2.628       2.628
                         (AC-FT)   117.        117.        117.        117.

                       CUMULATIVE AREA =     .84 SQ MI


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          *            *
181 KK    *       R32  *
          *            *
          **************
                    ROUTING FROM 32 TO 31

             HYDROGRAPH ROUTING DATA

183 RM         MUSKINGUM ROUTING
                     NSTPS         6 NUMBER OF SUBREACHES
                     AMSKK       .61 MUSKINGUM K
                         X       .20 MUSKINGUM X

                                                        ***

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

                     HYDROGRAPH AT STATION      R32
                       FOR PLAN 1, RATIO =  .68

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
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  (CFS)      (HR)                  6-HR       24-HR       72-HR     24.92-HR
   493.      2.25       (CFS)      105.         26.         25.         25.
                      (INCHES)    1.169       1.169       1.169       1.169
                       (AC-FT)     52.         52.         52.         52.

                     CUMULATIVE AREA =     .84 SQ MI


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

                     HYDROGRAPH AT STATION      R32
                       FOR PLAN 1, RATIO =  .89

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   740.       2.25       (CFS)      158.         39.         38.         38.
                      (INCHES)    1.758       1.758       1.758       1.758
                       (AC-FT)     78.         78.         78.         78.

                     CUMULATIVE AREA =     .84 SQ MI


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

                     HYDROGRAPH AT STATION      R32
                       FOR PLAN 1, RATIO = 1.00

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   868.       2.25       (CFS)      186.         46.         45.         45.
                      (INCHES)    2.066       2.066       2.066       2.066
                       (AC-FT)     92.         92.         92.         92.

                     CUMULATIVE AREA =     .84 SQ MI


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

                     HYDROGRAPH AT STATION      R32
                       FOR PLAN 1, RATIO = 1.20

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
  1096.       2.25       (CFS)      236.         59.         57.         57.
                      (INCHES)    2.628       2.628       2.628       2.628
                       (AC-FT)    117.        117.        117.        117.

                     CUMULATIVE AREA =     .84 SQ MI


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


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          *            *
184 KK    *        F1  *
          *            *
          **************
                        RUNOFF FROM F1

            SUBBASIN RUNOFF DATA

186 BA          SUBBASIN CHARACTERISTICS
                     TAREA          .82  SUBBASIN AREA
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PRECIPITATION DATA

28 PB STORM 2.83 BASIN TOTAL PRECIPITATION

29 PI INCREMENTAL PRECIPITATION PATTERN

.01	.01	.01	.02	.02	.02	.06	.06	.06	.17
.17	.17	.03	.03	.03	.02	.02	.02	.01	.01
.01	.01	.01	.01						

187 LU UNIFORM LOSS RATE

STRTL .65 INITIAL LOSS
CNSTL .08 UNIFORM LOSS RATE
RTIMP .00 PERCENT IMPERVIOUS AREA

188 UD SCS DIMENSIONLESS UNITGRAPH

TLAG .70 LAG

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UNIT HYDROGRAPH
44 END-OF-PERIOD ORDINATES

21.	65.	125.	208.	314.	416.	489.	528.	533.	521.
483.	439.	384.	316.	253.	209.	174.	145.	123.	103.
85.	71.	59.	49.	41.	34.	28.	24.	20.	16.
14.	11.	9.	8.	7.	6.	5.	4.	3.	3.
2.	2.	1.	0.						

TOTAL RAINFALL = 2.83, TOTAL LOSS = .76, TOTAL EXCESS = 2.07

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
921.	1.67	(CFS)	183.	46.	44.	44.
		(INCHES)	2.075	2.075	2.075	2.075
		(AC-FT)	91.	91.	91.	91.

CUMULATIVE AREA = .82 SQ MI

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HYDROGRAPH AT STATION F1
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 1.92, TOTAL LOSS = .75, TOTAL EXCESS = 1.18

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
525.	1.67	(CFS)	104.	26.	25.	25.
		(INCHES)	1.177	1.177	1.177	1.177
		(AC-FT)	51.	51.	51.	51.

CUMULATIVE AREA = .82 SQ MI

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HYDROGRAPH AT STATION F1
FOR PLAN 1, RATIO = .89

TOTAL RAINFALL = 2.52, TOTAL LOSS = .75, TOTAL EXCESS = 1.77

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
787.	1.67	(CFS)	156.	39.	38.	38.
		(INCHES)	1.766	1.766	1.766	1.766

(AC-FT)	77.	77.	77.	77.

CUMULATIVE AREA = .82 SQ MI

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

HYDROGRAPH AT STATION F1
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 2.83, TOTAL LOSS = .76, TOTAL EXCESS = 2.07

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
921.	1.67	(CFS)	183.	46.	44.	44.
		(INCHES)	2.075	2.075	2.075	2.075
		(AC-FT)	91.	91.	91.	91.

CUMULATIVE AREA = .82 SQ MI

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

HYDROGRAPH AT STATION F1
FOR PLAN 1, RATIO = 1.20

TOTAL RAINFALL = 3.40, TOTAL LOSS = .76, TOTAL EXCESS = 2.64

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1168.	1.58	(CFS)	233.	58.	56.	56.
		(INCHES)	2.637	2.637	2.637	2.637
		(AC-FT)	115.	115.	115.	115.

CUMULATIVE AREA = .82 SQ MI

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          *            *
189 KK    *      31B   *
          *            *
          **************
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HYDROGRAPH COMBINATION, FLOW FROM F1A,F1B, AND F1

191 HC HYDROGRAPH COMBINATION
ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

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

HYDROGRAPH AT STATION 31B
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
817.	2.00	(CFS)	209.	52.	50.	50.
		(INCHES)	1.173	1.173	1.173	1.173
		(AC-FT)	104.	104.	104.	104.

CUMULATIVE AREA = 1.65 SQ MI

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

                    HYDROGRAPH AT STATION      31B
                      FOR PLAN 1, RATIO =  .89

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR      24-HR      72-HR     24.92-HR
   1227.      2.00        (CFS)     314.        78.        76.         76.
                        (INCHES)   1.762      1.762      1.762       1.762
                         (AC-FT)   156.       156.       156.        156.

                      CUMULATIVE AREA =    1.65 SQ MI


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

                    HYDROGRAPH AT STATION      31B
                      FOR PLAN 1, RATIO = 1.00

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR      24-HR      72-HR     24.92-HR
   1439.      2.00        (CFS)     369.        92.        89.         89.
                        (INCHES)   2.070      2.070      2.070       2.070
                         (AC-FT)   183.       183.       183.        183.

                      CUMULATIVE AREA =    1.65 SQ MI


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

                    HYDROGRAPH AT STATION      31B
                      FOR PLAN 1, RATIO = 1.20

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR      24-HR      72-HR     24.92-HR
   1823.      2.00        (CFS)     469.       117.       113.        113.
                        (INCHES)   2.632      2.632      2.632       2.632
                         (AC-FT)   232.       232.       232.        232.

                      CUMULATIVE AREA =    1.65 SQ MI


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          *            *
192 KK    *        31  *
          *            *
          **************
                    WILLOW SPRINGS WASH 0.8 MILES ABOVE CONFLUENCE WITH CAVE CK.
                    HYDROGRAPH COMBINATION, FLOW FROM F1, F2 AND 19; BELOW CONFLUENCE

195 HC          HYDROGRAPH COMBINATION
                     ICOMP          2  NUMBER OF HYDROGRAPHS TO COMBINE

                                                          ***

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

                    HYDROGRAPH AT STATION       31
                      FOR PLAN 1, RATIO =  .68
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PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
3285.	1.58	(CFS)	602.	150.	145.	145.
		(INCHES)	1.179	1.179	1.179	1.179
		(AC-FT)	298.	298.	298.	298.

CUMULATIVE AREA = 4.74 SQ MI

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

HYDROGRAPH AT STATION 31
FOR PLAN 1, RATIO = .89

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
4942.	1.50	(CFS)	903.	226.	217.	217.
		(INCHES)	1.769	1.769	1.769	1.769
		(AC-FT)	448.	448.	448.	448.

CUMULATIVE AREA = 4.74 SQ MI

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

HYDROGRAPH AT STATION 31
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
5794.	1.50	(CFS)	1060.	265.	255.	255.
		(INCHES)	2.077	2.077	2.077	2.077
		(AC-FT)	526.	526.	526.	526.

CUMULATIVE AREA = 4.74 SQ MI

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

HYDROGRAPH AT STATION 31
FOR PLAN 1, RATIO = 1.20

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
7313.	1.50	(CFS)	1347.	337.	324.	324.
		(INCHES)	2.639	2.639	2.639	2.639
		(AC-FT)	668.	668.	668.	668.

CUMULATIVE AREA = 4.74 SQ MI

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              *            *
196 KK        *      R31   *
              *            *
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ROUTING 31 TO F

HYDROGRAPH ROUTING DATA

198 RM MUSKINGUM ROUTING

NSTPS	2	NUMBER OF SUBREACHES
AMSKK	.12	MUSKINGUM K
X	.20	MUSKINGUM X

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

HYDROGRAPH AT STATION R31
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		6-HR	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR
3239.	1.67	(CFS)	602.	150.	145.	145.
		(INCHES)	1.179	1.179	1.179	1.179
		(AC-FT)	298.	298.	298.	298.

CUMULATIVE AREA = 4.74 SQ MI

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

HYDROGRAPH AT STATION R31
FOR PLAN 1, RATIO = .89

PEAK FLOW (CFS)	TIME (HR)		6-HR	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR
4859.	1.67	(CFS)	903.	226.	217.	217.
		(INCHES)	1.769	1.769	1.769	1.769
		(AC-FT)	448.	448.	448.	448.

CUMULATIVE AREA = 4.74 SQ MI

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

HYDROGRAPH AT STATION R31
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		6-HR	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR
5683.	1.67	(CFS)	1060.	265.	255.	255.
		(INCHES)	2.077	2.077	2.077	2.077
		(AC-FT)	526.	526.	526.	526.

CUMULATIVE AREA = 4.74 SQ MI

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

HYDROGRAPH AT STATION R31
FOR PLAN 1, RATIO = 1.20

PEAK FLOW (CFS)	TIME (HR)		6-HR	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR
7154.	1.67	(CFS)	1347.	337.	324.	324.
		(INCHES)	2.639	2.639	2.639	2.639
		(AC-FT)	668.	668.	668.	668.

CUMULATIVE AREA = 4.74 SQ MI

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              **************
              *            *
  9 KK        *        F3  *
              *            *
              **************
                        RUNOFF FROM F3

            SUBBASIN RUNOFF DATA

201 BA          SUBBASIN CHARACTERISTICS
                      TAREA          .89  SUBBASIN AREA

                PRECIPITATION DATA

 28 PB                STORM        2.83  BASIN TOTAL PRECIPITATION

 29 PI            INCREMENTAL PRECIPITATION PATTERN
                      .01       .01       .01       .02       .02       .02       .06       .06       .06       .17
                      .17       .17       .03       .03       .03       .02       .02       .02       .01       .01
                      .01       .01       .01       .01

202 LU          UNIFORM LOSS RATE
                      STRTL          .65  INITIAL LOSS
                      CNSTL          .14  UNIFORM LOSS RATE
                      RTIMP          .00  PERCENT IMPERVIOUS AREA

203 UD          SCS DIMENSIONLESS UNITGRAPH
                       TLAG         1.21  LAG

                                                    ***

                                                UNIT HYDROGRAPH
                                          75 END-OF-PERIOD ORDINATES
              7.       18.       34.       55.       79.      106.      143.      183.      226.      263.
            294.      319.      333.      341.      343.      341.      334.      320.      304.      287.
            268.      246.      221.      193.      170.      151.      135.      121.      108.       97.
             88.       80.       71.       65.       58.       51.       46.       42.       37.       34.
             30.       27.       24.       22.       19.       17.       16.       14.       13.       11.
             10.        9.        8.        7.        7.        6.        5.        5.        4.        4.
              4.        3.        3.        3.        2.        2.        2.        2.        1.        1.
              1.        1.        0.        0.        0.

   TOTAL RAINFALL =    2.83, TOTAL LOSS =     .83, TOTAL EXCESS =    2.00

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   631.       2.17        (CFS)     191.         48.         46.         46.
                         (INCHES)  1.995       1.996       1.996       1.996
                         (AC-FT)    95.         95.         95.         95.

                         CUMULATIVE AREA =     .89 SQ MI

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

                      HYDROGRAPH AT STATION       F3
                        FOR PLAN 1, RATIO =  .68

   TOTAL RAINFALL =    1.92, TOTAL LOSS =     .82, TOTAL EXCESS =    1.10

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   352.       2.17        (CFS)     106.         26.         25.         25.
                         (INCHES)  1.103       1.103       1.103       1.103
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                    (AC-FT)       52.         52.         52.         52.

                    CUMULATIVE AREA =     .89 SQ MI


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

                     HYDROGRAPH AT STATION       F3
                       FOR PLAN 1, RATIO =  .89

   TOTAL RAINFALL =    2.52, TOTAL LOSS =     .83, TOTAL EXCESS =    1.69

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   536.       2.17       (CFS)      162.         40.         39.         39.
                        (INCHES)    1.689       1.690       1.690       1.690
                        (AC-FT)      80.         80.         80.         80.

                    CUMULATIVE AREA =     .89 SQ MI


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

                     HYDROGRAPH AT STATION       F3
                       FOR PLAN 1, RATIO = 1.00

   TOTAL RAINFALL =    2.83, TOTAL LOSS =     .83, TOTAL EXCESS =    2.00

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   631.       2.17       (CFS)      191.         48.         46.         46.
                        (INCHES)    1.995       1.996       1.996       1.996
                        (AC-FT)      95.         95.         95.         95.

                    CUMULATIVE AREA =     .89 SQ MI


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

                     HYDROGRAPH AT STATION       F3
                       FOR PLAN 1, RATIO = 1.20

   TOTAL RAINFALL =    3.40, TOTAL LOSS =     .84, TOTAL EXCESS =    2.55

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   804.       2.17       (CFS)      244.         61.         59.         59.
                        (INCHES)    2.553       2.555       2.555       2.555
                        (AC-FT)     121.        121.        121.        121.

                    CUMULATIVE AREA =     .89 SQ MI


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


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          *            *
04 KK     *        F4  *
          *            *
          **************
                     RUNOFF FROM F4

             SUBBASIN RUNOFF DATA
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206 BA          SUBBASIN CHARACTERISTICS
                     TAREA          .16  SUBBASIN AREA

                PRECIPITATION DATA

 28 PB               STORM         2.83  BASIN TOTAL PRECIPITATION

 29 PI            INCREMENTAL PRECIPITATION PATTERN
                     .01       .01       .01       .02       .02       .02       .06       .06       .06       .17
                     .17       .17       .03       .03       .03       .02       .02       .02       .01       .01
                     .01       .01       .01       .01

207 LU          UNIFORM LOSS RATE
                     STRTL          .65  INITIAL LOSS
                     CNSTL          .15  UNIFORM LOSS RATE
                     RTIMP          .00  PERCENT IMPERVIOUS AREA

208 UD          SCS DIMENSIONLESS UNITGRAPH
                      TLAG          .35  LAG

                                                   ***

                                                UNIT HYDROGRAPH
                                           23 END-OF-PERIOD ORDINATES
            22.       69.      142.      190.      196.      173.      136.       91.       64.       46.
            33.       23.       16.       11.        8.        6.        4.        3.        2.        2.
             1.        1.        0.

   TOTAL RAINFALL =    2.83, TOTAL LOSS =     .85, TOTAL EXCESS =    1.98

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   296.       1.25        (CFS)      34.         9.          8.          8.
                        (INCHES)   1.983       1.983       1.983       1.983
                         (AC-FT)     17.         17.         17.         17.

                       CUMULATIVE AREA =     .16 SQ MI

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

                     HYDROGRAPH AT STATION       F4
                       FOR PLAN 1, RATIO =  .68

   TOTAL RAINFALL =    1.92, TOTAL LOSS =     .83, TOTAL EXCESS =    1.09

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   167.       1.25        (CFS)      19.         5.          5.          5.
                        (INCHES)   1.091       1.091       1.091       1.091
                         (AC-FT)      9.          9.          9.          9.

                       CUMULATIVE AREA =     .16 SQ MI

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

                     HYDROGRAPH AT STATION       F4
                       FOR PLAN 1, RATIO =  .89

   TOTAL RAINFALL =    2.52, TOTAL LOSS =     .84, TOTAL EXCESS =    1.68

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   253.       1.25        (CFS)      29.         7.          7.          7.
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                    (INCHES)     1.677       1.677       1.677       1.677
                     (AC-FT)      14.         14.         14.         14.

                    CUMULATIVE AREA =     .16 SQ MI


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

                     HYDROGRAPH AT STATION       F4
                       FOR PLAN 1, RATIO = 1.00

   TOTAL RAINFALL =    2.83, TOTAL LOSS =     .85, TOTAL EXCESS =    1.98

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
   296.       1.25       (CFS)      34.         9.          8.          8.
                     (INCHES)     1.983       1.983       1.983       1.983
                      (AC-FT)      17.         17.         17.         17.

                    CUMULATIVE AREA =     .16 SQ MI


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

                     HYDROGRAPH AT STATION       F4
                       FOR PLAN 1, RATIO = 1.20

   TOTAL RAINFALL =    3.40, TOTAL LOSS =     .85, TOTAL EXCESS =    2.54

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
   370.       1.25       (CFS)      44.        11.         11.         11.
                     (INCHES)     2.541       2.541       2.541       2.541
                      (AC-FT)      22.         22.         22.         22.

                    CUMULATIVE AREA =     .16 SQ MI


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          *            *
209 KK    *          F *
          *            *
          **************
                    WILLOW SPRINGS WASH ABOVE CONFLUENCE WITH CAVE CREEK

211 HC          HYDROGRAPH COMBINATION
                     ICOMP           3  NUMBER OF HYDROGRAPHS TO COMBINE

                                                          ***

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

                     HYDROGRAPH AT STATION        F
                       FOR PLAN 1, RATIO =  .68

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
  3546.       1.67       (CFS)     726.        182.        175.        175.
                     (INCHES)     1.165       1.165       1.165       1.165
                      (AC-FT)     360.        360.        360.        360.
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                    CUMULATIVE AREA =    5.80 SQ MI

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

                    HYDROGRAPH AT STATION        F
                      FOR PLAN 1, RATIO =  .89

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
  5334.       1.67       (CFS)     1093.       273.        263.        263.
                       (INCHES)    1.754      1.754       1.754       1.754
                       (AC-FT)     542.       542.        542.        542.

                    CUMULATIVE AREA =    5.80 SQ MI

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

                    HYDROGRAPH AT STATION        F
                      FOR PLAN 1, RATIO = 1.00

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
  6247.       1.67       (CFS)     1285.       321.        310.        310.
                       (INCHES)    2.062      2.062       2.062       2.062
                       (AC-FT)     637.       637.        637.        637.

                    CUMULATIVE AREA =    5.80 SQ MI

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

                    HYDROGRAPH AT STATION        F
                      FOR PLAN 1, RATIO = 1.20

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
  7879.       1.67       (CFS)     1635.       409.        394.        394.
                       (INCHES)    2.623      2.624       2.624       2.624
                       (AC-FT)     811.       811.        811.        811.

                    CUMULATIVE AREA =    5.80 SQ MI


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


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          *            *
212 KK    *      G2A   *
          *            *
          **************
                    BEGIN OCOTILLO
                    RUNOFF FROM G2A

            SUBBASIN RUNOFF DATA

215 BA        SUBBASIN CHARACTERISTICS
                    TAREA          .61  SUBBASIN AREA

              PRECIPITATION DATA

 28 PB              STORM        2.83  BASIN TOTAL PRECIPITATION
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29 PI          INCREMENTAL PRECIPITATION PATTERN
                 .01      .01      .01      .02      .02      .02      .06      .06      .06      .17
                 .17      .17      .03      .03      .03      .02      .02      .02      .01      .01
                 .01      .01      .01      .01

216 LU        UNIFORM LOSS RATE
                 STRTL        .65  INITIAL LOSS
                 CNSTL        .14  UNIFORM LOSS RATE
                 RTIMP        .00  PERCENT IMPERVIOUS AREA

217 UD        SCS DIMENSIONLESS UNITGRAPH
                 TLAG         .31  LAG

                                                  ***

                                                UNIT HYDROGRAPH
                                            21 END-OF-PERIOD ORDINATES
          112.     359.     698.     834.     788.     636.     420.     279.     194.     131.
           89.      61.      41.      28.      19.      13.       9.       7.       4.       2.
            0.

   TOTAL RAINFALL =    2.83, TOTAL LOSS =     .83, TOTAL EXCESS =    2.00

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
  1206.       1.17       (CFS)     131.         33.         32.         32.
                       (INCHES)   1.996       1.996       1.996       1.996
                        (AC-FT)    65.         65.         65.         65.

                      CUMULATIVE AREA =     .61 SQ MI

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

                      HYDROGRAPH AT STATION      G2A
                        FOR PLAN 1, RATIO =  .68

   TOTAL RAINFALL =    1.92, TOTAL LOSS =     .82, TOTAL EXCESS =    1.10

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
   693.       1.25       (CFS)      72.         18.         17.         17.
                       (INCHES)   1.103       1.103       1.103       1.103
                        (AC-FT)    36.         36.         36.         36.

                      CUMULATIVE AREA =     .61 SQ MI

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

                      HYDROGRAPH AT STATION      G2A
                        FOR PLAN 1, RATIO =  .89

   TOTAL RAINFALL =    2.52, TOTAL LOSS =     .83, TOTAL EXCESS =    1.69

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
  1030.       1.25       (CFS)     111.         28.         27.         27.
                       (INCHES)   1.690       1.690       1.690       1.690
                        (AC-FT)    55.         55.         55.         55.

                      CUMULATIVE AREA =     .61 SQ MI

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                    HYDROGRAPH AT STATION      G2A
                      FOR PLAN 1, RATIO = 1.00

 TOTAL RAINFALL =    2.83, TOTAL LOSS =     .83, TOTAL EXCESS =    2.00

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
  1206.       1.17       (CFS)     131.         33.         32.         32.
                       (INCHES)   1.996       1.996       1.996       1.996
                       (AC-FT)     65.         65.         65.         65.

                       CUMULATIVE AREA =     .61 SQ MI


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

                    HYDROGRAPH AT STATION      G2A
                      FOR PLAN 1, RATIO = 1.20

 TOTAL RAINFALL =    3.40, TOTAL LOSS =     .84, TOTAL EXCESS =    2.55

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
  1517.       1.17       (CFS)     168.         42.         40.         40.
                       (INCHES)   2.555       2.555       2.555       2.555
                       (AC-FT)     83.         83.         83.         83.

                       CUMULATIVE AREA =     .61 SQ MI


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          *            *
218 KK    *      G2B   *
          *            *
          **************
                        RUNOFF FROM G2B

             SUBBASIN RUNOFF DATA

220 BA          SUBBASIN CHARACTERISTICS
                      TAREA          .15  SUBBASIN AREA

                PRECIPITATION DATA

 28 PB                STORM        2.83  BASIN TOTAL PRECIPITATION

 29 PI            INCREMENTAL PRECIPITATION PATTERN
                      .01        .01        .01        .02        .02        .02        .06        .06        .06        .17
                      .17        .17        .03        .03        .03        .02        .02        .02        .01        .01
                      .01        .01        .01        .01

221 LU          UNIFORM LOSS RATE
                      STRTL          .65  INITIAL LOSS
                      CNSTL          .14  UNIFORM LOSS RATE
                      RTIMP          .00  PERCENT IMPERVIOUS AREA

222 UD          SCS DIMENSIONLESS UNITGRAPH
                       TLAG          .47  LAG

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UNIT HYDROGRAPH
30 END-OF-PERIOD ORDINATES

10.	31.	64.	105.	133.	141.	137.	122.	101.	75.
56.	43.	34.	26.	20.	15.	12.	9.	7.	5.
4.	3.	2.	2.	1.	1.	1.	1.	0.	0.

TOTAL RAINFALL = 2.83, TOTAL LOSS = .83, TOTAL EXCESS = 2.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
223.	1.33	(CFS)	32.	8.	8.	8.
		(INCHES)	1.996	1.996	1.996	1.996
		(AC-FT)	16.	16.	16.	16.

CUMULATIVE AREA = .15 SQ MI

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

HYDROGRAPH AT STATION G2B
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 1.92, TOTAL LOSS = .82, TOTAL EXCESS = 1.10

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
126.	1.42	(CFS)	18.	4.	4.	4.
		(INCHES)	1.103	1.103	1.103	1.103
		(AC-FT)	9.	9.	9.	9.

CUMULATIVE AREA = .15 SQ MI

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

HYDROGRAPH AT STATION G2B
FOR PLAN 1, RATIO = .89

TOTAL RAINFALL = 2.52, TOTAL LOSS = .83, TOTAL EXCESS = 1.69

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
190.	1.42	(CFS)	27.	7.	7.	7.
		(INCHES)	1.690	1.690	1.690	1.690
		(AC-FT)	14.	14.	14.	14.

CUMULATIVE AREA = .15 SQ MI

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

HYDROGRAPH AT STATION G2B
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 2.83, TOTAL LOSS = .83, TOTAL EXCESS = 2.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
223.	1.33	(CFS)	32.	8.	8.	8.
		(INCHES)	1.996	1.996	1.996	1.996
		(AC-FT)	16.	16.	16.	16.

CUMULATIVE AREA = .15 SQ MI

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

                HYDROGRAPH AT STATION      G2B
                  FOR PLAN 1, RATIO = 1.20

 TOTAL RAINFALL =    3.40, TOTAL LOSS =     .84, TOTAL EXCESS =    2.55

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
   283.       1.33       (CFS)      41.         10.         10.         10.
                       (INCHES)    2.555       2.555       2.555       2.555
                        (AC-FT)     20.         20.         20.         20.

                       CUMULATIVE AREA =     .15 SQ MI


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          *            *
223 KK    *        36  *
          *            *
          **************
                  HYDROGRAPH COMBINATION, FLOW FROM G2A AND G2B

225 HC          HYDROGRAPH COMBINATION
                     ICOMP          2  NUMBER OF HYDROGRAPHS TO COMBINE

                                                          ***

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

                HYDROGRAPH AT STATION       36
                  FOR PLAN 1, RATIO =  .68

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
   802.       1.25       (CFS)      90.         23.         22.         22.
                       (INCHES)    1.103       1.103       1.103       1.103
                        (AC-FT)     45.         45.         45.         45.

                       CUMULATIVE AREA =     .76 SQ MI


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

                HYDROGRAPH AT STATION       36
                  FOR PLAN 1, RATIO =  .89

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
  1201.       1.25       (CFS)     138.         35.         33.         33.
                       (INCHES)    1.690       1.690       1.690       1.690
                        (AC-FT)     68.         68.         68.         68.

                       CUMULATIVE AREA =     .76 SQ MI


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

                HYDROGRAPH AT STATION       36
                  FOR PLAN 1, RATIO = 1.00
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PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   1397.      1.25        (CFS)     163.         41.         39.         39.
                        (INCHES)   1.996       1.996       1.996       1.996
                         (AC-FT)     81.         81.         81.         81.

                       CUMULATIVE AREA =     .76 SQ MI


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

                       HYDROGRAPH AT STATION       36
                         FOR PLAN 1, RATIO = 1.20

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   1743.      1.25        (CFS)     209.         52.         50.         50.
                        (INCHES)   2.555       2.555       2.555       2.555
                         (AC-FT)    104.        104.        104.        104.

                       CUMULATIVE AREA =     .76 SQ MI


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          *            *
226 KK    *        G1  *
          *            *
          **************
                        RUNOFF FROM G1

             SUBBASIN RUNOFF DATA

228 BA         SUBBASIN CHARACTERISTICS
                     TAREA          .61  SUBBASIN AREA

               PRECIPITATION DATA

 28 PB               STORM         2.83  BASIN TOTAL PRECIPITATION

 29 PI           INCREMENTAL PRECIPITATION PATTERN
                     .01       .01       .01       .02       .02       .02       .06       .06       .06       .17
                     .17       .17       .03       .03       .03       .02       .02       .02       .01       .01
                     .01       .01       .01       .01

229 LU         UNIFORM LOSS RATE
                     STRTL          .65  INITIAL LOSS
                     CNSTL          .08  UNIFORM LOSS RATE
                     RTIMP          .00  PERCENT IMPERVIOUS AREA

230 UD         SCS DIMENSIONLESS UNITGRAPH
                      TLAG          .17  LAG

                                                   ***

                                                UNIT HYDROGRAPH
                                            12 END-OF-PERIOD ORDINATES
            423.     1282.     1317.      826.      414.      221.      117.       61.       33.       17.
             10.        4.

   TOTAL RAINFALL =    2.83, TOTAL LOSS =     .76, TOTAL EXCESS =    2.07
```

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1714.	1.08	(CFS)	136.	34.	33.	33.
		(INCHES)	2.075	2.075	2.075	2.075
		(AC-FT)	67.	67.	67.	67.

CUMULATIVE AREA = .61 SQ MI

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

HYDROGRAPH AT STATION G1
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 1.92, TOTAL LOSS = .75, TOTAL EXCESS = 1.18

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1029.	1.08	(CFS)	77.	19.	19.	19.
		(INCHES)	1.177	1.177	1.177	1.177
		(AC-FT)	38.	38.	38.	38.

CUMULATIVE AREA = .61 SQ MI

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

HYDROGRAPH AT STATION G1
FOR PLAN 1, RATIO = .89

TOTAL RAINFALL = 2.52, TOTAL LOSS = .75, TOTAL EXCESS = 1.77

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1494.	1.08	(CFS)	116.	29.	28.	28.
		(INCHES)	1.766	1.766	1.766	1.766
		(AC-FT)	57.	57.	57.	57.

CUMULATIVE AREA = .61 SQ MI

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

HYDROGRAPH AT STATION G1
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 2.83, TOTAL LOSS = .76, TOTAL EXCESS = 2.07

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1714.	1.08	(CFS)	136.	34.	33.	33.
		(INCHES)	2.075	2.075	2.075	2.075
		(AC-FT)	67.	67.	67.	67.

CUMULATIVE AREA = .61 SQ MI

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

HYDROGRAPH AT STATION G1
FOR PLAN 1, RATIO = 1.20

TOTAL RAINFALL = 3.40, TOTAL LOSS = .76, TOTAL EXCESS = 2.64

PEAK FLOW (CFS)	TIME (HR)	MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR

2099.	1.08	(CFS)	173.	43.	42.	42.
		(INCHES)	2.637	2.637	2.637	2.637
		(AC-FT)	86.	86.	86.	86.

CUMULATIVE AREA = .61 SQ MI

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          *            *
231 KK    *       R34  *
          *            *
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ROUTING FROM 34 TO 35

HYDROGRAPH ROUTING DATA

233 RM MUSKINGUM ROUTING

NSTPS	4	NUMBER OF SUBREACHES
AMSKK	.43	MUSKINGUM K
X	.20	MUSKINGUM X

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

HYDROGRAPH AT STATION R34
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		6-HR	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR
680.	1.50	(CFS)	77.	19.	19.	19.
		(INCHES)	1.177	1.177	1.177	1.177
		(AC-FT)	38.	38.	38.	38.

CUMULATIVE AREA = .61 SQ MI

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

HYDROGRAPH AT STATION R34
FOR PLAN 1, RATIO = .89

PEAK FLOW (CFS)	TIME (HR)		6-HR	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR
1017.	1.50	(CFS)	116.	29.	28.	28.
		(INCHES)	1.766	1.766	1.766	1.766
		(AC-FT)	57.	57.	57.	57.

CUMULATIVE AREA = .61 SQ MI

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

HYDROGRAPH AT STATION R34
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		6-HR	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR
1185.	1.50	(CFS)	136.	34.	33.	33.
		(INCHES)	2.075	2.075	2.075	2.075
		(AC-FT)	67.	67.	67.	67.

CUMULATIVE AREA = .61 SQ MI

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

HYDROGRAPH AT STATION R34
FOR PLAN 1, RATIO = 1.20

PEAK FLOW (CFS)	TIME (HR)		6-HR	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR
1478.	1.50	(CFS)	173.	43.	42.	42.
		(INCHES)	2.637	2.637	2.637	2.637
		(AC-FT)	86.	86.	86.	86.

CUMULATIVE AREA = .61 SQ MI

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          *            *
234 KK    *        G2  *
          *            *
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RUNOFF FROM G2

SUBBASIN RUNOFF DATA

6 BA SUBBASIN CHARACTERISTICS
TAREA 1.17 SUBBASIN AREA

PRECIPITATION DATA

28 PB STORM 2.83 BASIN TOTAL PRECIPITATION

29 PI INCREMENTAL PRECIPITATION PATTERN

.01	.01	.01	.02	.02	.02	.06	.06	.06	.17
.17	.17	.03	.03	.03	.02	.02	.02	.01	.01
.01	.01	.01	.01						

237 LU UNIFORM LOSS RATE
STRTL .65 INITIAL LOSS
CNSTL .14 UNIFORM LOSS RATE
RTIMP .00 PERCENT IMPERVIOUS AREA

238 UD SCS DIMENSIONLESS UNITGRAPH
TLAG .43 LAG

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UNIT HYDROGRAPH
28 END-OF-PERIOD ORDINATES

100.	304.	631.	991.	1174.	1191.	1083.	918.	685.	495.
369.	283.	213.	158.	119.	89.	66.	50.	38.	28.
21.	16.	12.	10.	7.	5.	3.	1.		

TOTAL RAINFALL = 2.83, TOTAL LOSS = .83, TOTAL EXCESS = 2.00

PEAK FLOW (CFS)	TIME (HR)		6-HR	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR
1873.	1.33	(CFS)	251.	63.	60.	60.
		(INCHES)	1.996	1.996	1.996	1.996

(AC-FT)	125.	125.	125.	125.

CUMULATIVE AREA = 1.17 SQ MI

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

HYDROGRAPH AT STATION G2
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 1.92, TOTAL LOSS = .82, TOTAL EXCESS = 1.10

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1054.	1.33	(CFS)	139.	35.	33.	33.
		(INCHES)	1.103	1.103	1.103	1.103
		(AC-FT)	69.	69.	69.	69.

CUMULATIVE AREA = 1.17 SQ MI

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

HYDROGRAPH AT STATION G2
FOR PLAN 1, RATIO = .89

TOTAL RAINFALL = 2.52, TOTAL LOSS = .83, TOTAL EXCESS = 1.69

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1598.	1.33	(CFS)	213.	53.	51.	51.
		(INCHES)	1.690	1.690	1.690	1.690
		(AC-FT)	105.	105.	105.	105.

CUMULATIVE AREA = 1.17 SQ MI

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

HYDROGRAPH AT STATION G2
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 2.83, TOTAL LOSS = .83, TOTAL EXCESS = 2.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1873.	1.33	(CFS)	251.	63.	60.	60.
		(INCHES)	1.996	1.996	1.996	1.996
		(AC-FT)	125.	125.	125.	125.

CUMULATIVE AREA = 1.17 SQ MI

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HYDROGRAPH AT STATION G2
FOR PLAN 1, RATIO = 1.20

TOTAL RAINFALL = 3.40, TOTAL LOSS = .84, TOTAL EXCESS = 2.55

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
2356.	1.33	(CFS)	322.	80.	77.	77.
		(INCHES)	2.555	2.555	2.555	2.555
		(AC-FT)	159.	159.	159.	159.

CUMULATIVE AREA = 1.17 SQ MI

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              *            *
239 KK        *      35A   *
              *            *
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HYDROGRAPH COMBINATION, FLOW FROM G1 AND G2; ABOVE CONFLUENCE

241 HC HYDROGRAPH COMBINATION

ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

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HYDROGRAPH AT STATION 35A
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1652.	1.42	(CFS)	216.	54.	52.	52.
		(INCHES)	1.128	1.128	1.128	1.128
		(AC-FT)	107.	107.	107.	107.

CUMULATIVE AREA = 1.78 SQ MI

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HYDROGRAPH AT STATION 35A
FOR PLAN 1, RATIO = .89

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
2499.	1.42	(CFS)	329.	82.	79.	79.
		(INCHES)	1.716	1.716	1.716	1.716
		(AC-FT)	163.	163.	163.	163.

CUMULATIVE AREA = 1.78 SQ MI

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HYDROGRAPH AT STATION 35A
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
2922.	1.42	(CFS)	387.	97.	93.	93.
		(INCHES)	2.023	2.023	2.023	2.023
		(AC-FT)	192.	192.	192.	192.

CUMULATIVE AREA = 1.78 SQ MI

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

HYDROGRAPH AT STATION 35A
FOR PLAN 1, RATIO = 1.20

PEAK FLOW (CFS)	TIME (HR)		6-HR	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR
3667.	1.42	(CFS)	495.	124.	119.	119.
		(INCHES)	2.583	2.583	2.583	2.583
		(AC-FT)	245.	245.	245.	245.

CUMULATIVE AREA = 1.78 SQ MI

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              *            *
242 KK        *        35  *
              *            *
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HYDROGRAPH COMBINATION, FLOW FROM G1, G2 AND 36; BELOW CONFLUENCE

244 HC HYDROGRAPH COMBINATION
ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

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HYDROGRAPH AT STATION 35
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		6-HR	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR
2274.	1.42	(CFS)	306.	77.	74.	74.
		(INCHES)	1.121	1.121	1.121	1.121
		(AC-FT)	152.	152.	152.	152.

CUMULATIVE AREA = 2.54 SQ MI

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HYDROGRAPH AT STATION 35
FOR PLAN 1, RATIO = .89

PEAK FLOW (CFS)	TIME (HR)		6-HR	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR
3445.	1.33	(CFS)	467.	117.	112.	112.
		(INCHES)	1.708	1.708	1.708	1.708
		(AC-FT)	231.	231.	231.	231.

CUMULATIVE AREA = 2.54 SQ MI

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HYDROGRAPH AT STATION 35
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		6-HR	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR
4047.	1.33	(CFS)	550.	138.	133.	133.
		(INCHES)	2.015	2.015	2.015	2.015
		(AC-FT)	273.	273.	273.	273.

CUMULATIVE AREA = 2.54 SQ MI

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

HYDROGRAPH AT STATION 35
FOR PLAN 1, RATIO = 1.20

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
5109.	1.33	(CFS)	703.	176.	169.	169.
		(INCHES)	2.575	2.575	2.575	2.575
		(AC-FT)	349.	349.	349.	349.

CUMULATIVE AREA = 2.54 SQ MI

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          *            *
245 KK    *      R35   *
          *            *
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ROUTING 35 TO G

HYDROGRAPH ROUTING DATA

247 RM MUSKINGUM ROUTING

NSTPS	4	NUMBER OF SUBREACHES
AMSKK	.37	MUSKINGUM K
X	.20	MUSKINGUM X

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

HYDROGRAPH AT STATION R35
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
2047.	1.75	(CFS)	306.	77.	74.	74.
		(INCHES)	1.121	1.121	1.121	1.121
		(AC-FT)	152.	152.	152.	152.

CUMULATIVE AREA = 2.54 SQ MI

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HYDROGRAPH AT STATION R35
FOR PLAN 1, RATIO = .89

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
3096.	1.75	(CFS)	467.	117.	112.	112.
		(INCHES)	1.708	1.708	1.708	1.708
		(AC-FT)	231.	231.	231.	231.

CUMULATIVE AREA = 2.54 SQ MI

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

                HYDROGRAPH AT STATION      R35
                  FOR PLAN 1, RATIO = 1.00

PEAK FLOW    TIME                          MAXIMUM AVERAGE FLOW
  (CFS)      (HR)                 6-HR      24-HR      72-HR     24.92-HR
  3628.      1.75       (CFS)     550.       138.       133.        133.
                      (INCHES)   2.015      2.015      2.015       2.015
                       (AC-FT)   273.       273.       273.        273.

                    CUMULATIVE AREA =    2.54 SQ MI


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

                HYDROGRAPH AT STATION      R35
                  FOR PLAN 1, RATIO = 1.20

PEAK FLOW    TIME                          MAXIMUM AVERAGE FLOW
  (CFS)      (HR)                 6-HR      24-HR      72-HR     24.92-HR
  4572.      1.75       (CFS)     703.       176.       169.        169.
                      (INCHES)   2.575      2.575      2.575       2.575
                       (AC-FT)   349.       349.       349.        349.

                    CUMULATIVE AREA =    2.54 SQ MI


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          *            *
248 KK    *        G3  *
          *            *
          **************
                    RUNOFF FROM G3

            SUBBASIN RUNOFF DATA

250 BA        SUBBASIN CHARACTERISTICS
                   TAREA          .85  SUBBASIN AREA

              PRECIPITATION DATA

 28 PB             STORM         2.83  BASIN TOTAL PRECIPITATION

 29 PI          INCREMENTAL PRECIPITATION PATTERN
                   .01       .01       .01       .02       .02       .02       .06       .06       .06       .17
                   .17       .17       .03       .03       .03       .02       .02       .02       .01       .01
                   .01       .01       .01       .01

251 LU        UNIFORM LOSS RATE
                   STRTL          .65  INITIAL LOSS
                   CNSTL          .23  UNIFORM LOSS RATE
                   RTIMP          .00  PERCENT IMPERVIOUS AREA

252 UD        SCS DIMENSIONLESS UNITGRAPH
                    TLAG          .50  LAG

                                                    ***

                                          UNIT HYDROGRAPH
                                     32 END-OF-PERIOD ORDINATES
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51.	151.	310.	519.	679.	752.	752.	689.	601.	481.
355.	275.	212.	170.	132.	102.	79.	62.	48.	37.
29.	23.	18.	14.	11.	8.	7.	6.	4.	3.
2.	1.								

TOTAL RAINFALL = 2.83, TOTAL LOSS = .95, TOTAL EXCESS = 1.88

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1184.	1.42	(CFS)	172.	43.	41.	41.
		(INCHES)	1.878	1.878	1.878	1.878
		(AC-FT)	85.	85.	85.	85.

CUMULATIVE AREA = .85 SQ MI

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HYDROGRAPH AT STATION G3
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 1.92, TOTAL LOSS = .93, TOTAL EXCESS = .99

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
657.	1.42	(CFS)	91.	23.	22.	22.
		(INCHES)	.993	.993	.993	.993
		(AC-FT)	45.	45.	45.	45.

CUMULATIVE AREA = .85 SQ MI

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HYDROGRAPH AT STATION G3
FOR PLAN 1, RATIO = .89

TOTAL RAINFALL = 2.52, TOTAL LOSS = .94, TOTAL EXCESS = 1.57

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1007.	1.42	(CFS)	144.	36.	35.	35.
		(INCHES)	1.575	1.575	1.575	1.575
		(AC-FT)	71.	71.	71.	71.

CUMULATIVE AREA = .85 SQ MI

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

HYDROGRAPH AT STATION G3
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 2.83, TOTAL LOSS = .95, TOTAL EXCESS = 1.88

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1184.	1.42	(CFS)	172.	43.	41.	41.
		(INCHES)	1.878	1.878	1.878	1.878
		(AC-FT)	85.	85.	85.	85.

CUMULATIVE AREA = .85 SQ MI

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                    HYDROGRAPH AT STATION       G3
                      FOR PLAN 1, RATIO = 1.20

 TOTAL RAINFALL =    3.40, TOTAL LOSS =     .96, TOTAL EXCESS =    2.43

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
  1500.       1.42       (CFS)      222.         56.         54.          54.
                       (INCHES)    2.432       2.432       2.432        2.432
                        (AC-FT)    110.        110.        110.         110.

                      CUMULATIVE AREA =     .85 SQ MI


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          *            *
253 KK    *         G  *
          *            *
          **************
                    HYDROGRAPH COMBINATION, FLOW FROM G3 AND 35;
                    ABOVE CONFLUENCE WITH CAVE CREEK

256 HC          HYDROGRAPH COMBINATION
                     ICOMP           2  NUMBER OF HYDROGRAPHS TO COMBINE

                                                          ***

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

                    HYDROGRAPH AT STATION        G
                      FOR PLAN 1, RATIO =  .68

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
  2461.       1.67       (CFS)      397.         99.         96.          96.
                       (INCHES)    1.089       1.089       1.089        1.089
                        (AC-FT)    197.        197.        197.         197.

                      CUMULATIVE AREA =    3.39 SQ MI

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

                    HYDROGRAPH AT STATION        G
                      FOR PLAN 1, RATIO =  .89

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
  3764.       1.67       (CFS)      611.        153.        147.         147.
                       (INCHES)    1.675       1.675       1.675        1.675
                        (AC-FT)    303.        303.        303.         303.

                      CUMULATIVE AREA =    3.39 SQ MI

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

                    HYDROGRAPH AT STATION        G
                      FOR PLAN 1, RATIO = 1.00

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
```

(CFS)	(HR)		6-HR	24-HR	72-HR	24.92-HR
4430.	1.67	(CFS)	722.	181.	174.	174.
		(INCHES)	1.980	1.980	1.980	1.980
		(AC-FT)	358.	358.	358.	358.

CUMULATIVE AREA = 3.39 SQ MI

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

HYDROGRAPH AT STATION G
FOR PLAN 1, RATIO = 1.20

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
(CFS)	(HR)		6-HR	24-HR	72-HR	24.92-HR
5619.	1.67	(CFS)	926.	231.	223.	223.
		(INCHES)	2.539	2.539	2.539	2.539
		(AC-FT)	459.	459.	459.	459.

CUMULATIVE AREA = 3.39 SQ MI

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257 KK    *        I1  *
          *            *
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BEGIN NORTH GALLOWAY WASH
RUNOFF FROM I1

SUBBASIN RUNOFF DATA

260 BA SUBBASIN CHARACTERISTICS
TAREA 4.98 SUBBASIN AREA

PRECIPITATION DATA

28 PB STORM 2.83 BASIN TOTAL PRECIPITATION

29 PI INCREMENTAL PRECIPITATION PATTERN

.01	.01	.01	.02	.02	.02	.06	.06	.06	.17
.17	.17	.03	.03	.03	.02	.02	.02	.01	.01
.01	.01	.01	.01						

261 LU UNIFORM LOSS RATE
STRTL .65 INITIAL LOSS
CNSTL .07 UNIFORM LOSS RATE
RTIMP .00 PERCENT IMPERVIOUS AREA

262 UD SCS DIMENSIONLESS UNITGRAPH
TLAG .57 LAG

***

UNIT HYDROGRAPH
36 END-OF-PERIOD ORDINATES

218.	650.	1274.	2184.	3106.	3698.	3914.	3897.	3585.	3185.
2679.	2065.	1613.	1283.	1038.	843.	677.	537.	430.	347.
276.	217.	177.	142.	113.	92.	73.	58.	47.	39.
33.	26.	20.	14.	9.	4.				

TOTAL RAINFALL = 2.83, TOTAL LOSS = .74, TOTAL EXCESS = 2.09

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
6593.	1.50	(CFS)	1118.	280.	269.	269.
		(INCHES)	2.088	2.088	2.088	2.088
		(AC-FT)	555.	555.	555.	555.

CUMULATIVE AREA = 4.98 SQ MI

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

HYDROGRAPH AT STATION I1
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 1.92, TOTAL LOSS = .74, TOTAL EXCESS = 1.19

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
3751.	1.50	(CFS)	637.	159.	153.	153.
		(INCHES)	1.189	1.189	1.189	1.189
		(AC-FT)	316.	316.	316.	316.

CUMULATIVE AREA = 4.98 SQ MI

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

HYDROGRAPH AT STATION I1
FOR PLAN 1, RATIO = .89

TOTAL RAINFALL = 2.52, TOTAL LOSS = .74, TOTAL EXCESS = 1.78

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
5632.	1.50	(CFS)	953.	238.	229.	229.
		(INCHES)	1.779	1.779	1.779	1.779
		(AC-FT)	473.	473.	473.	473.

CUMULATIVE AREA = 4.98 SQ MI

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

HYDROGRAPH AT STATION I1
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 2.83, TOTAL LOSS = .74, TOTAL EXCESS = 2.09

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
6593.	1.50	(CFS)	1118.	280.	269.	269.
		(INCHES)	2.088	2.088	2.088	2.088
		(AC-FT)	555.	555.	555.	555.

CUMULATIVE AREA = 4.98 SQ MI

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

HYDROGRAPH AT STATION I1
FOR PLAN 1, RATIO = 1.20

TOTAL RAINFALL = 3.40, TOTAL LOSS = .75, TOTAL EXCESS = 2.65

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PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   8303.      1.50        (CFS)     1420.       355.        342.        342.
                        (INCHES)    2.650      2.650       2.650       2.650
                         (AC-FT)     704.       704.        704.        704.

                       CUMULATIVE AREA =    4.98 SQ MI


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


          **************
          *            *
263 KK    *        I2  *
          *            *
          **************
                         RUNOFF FROM I2

             SUBBASIN RUNOFF DATA

265 BA          SUBBASIN CHARACTERISTICS
                      TAREA          .62  SUBBASIN AREA

                PRECIPITATION DATA

 28 PB                STORM        2.83  BASIN TOTAL PRECIPITATION

 29 PI            INCREMENTAL PRECIPITATION PATTERN
                      .01       .01       .01       .02       .02       .02       .06       .06       .06       .17
                      .17       .17       .03       .03       .03       .02       .02       .02       .01       .01
                      .01       .01       .01       .01

266 LU          UNIFORM LOSS RATE
                      STRTL          .65  INITIAL LOSS
                      CNSTL          .08  UNIFORM LOSS RATE
                      RTIMP          .00  PERCENT IMPERVIOUS AREA

267 UD          SCS DIMENSIONLESS UNITGRAPH
                       TLAG          .47  LAG

                                                   ***

                                                UNIT HYDROGRAPH
                                           30 END-OF-PERIOD ORDINATES
             43.      129.      265.      435.      550.      584.      566.      502.      418.      311.
            232.      177.      139.      107.       81.       62.       48.       37.       28.       22.
             17.       13.       10.        8.        6.        5.        4.        3.        2.        1.

   TOTAL RAINFALL =    2.83, TOTAL LOSS =     .76, TOTAL EXCESS =    2.07

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
    937.      1.42        (CFS)      138.        35.         33.         33.
                        (INCHES)    2.075      2.075       2.075       2.075
                         (AC-FT)     69.        69.         69.         69.

                       CUMULATIVE AREA =     .62 SQ MI


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

                       HYDROGRAPH AT STATION       12
                         FOR PLAN 1, RATIO =  .68
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TOTAL RAINFALL = 1.92, TOTAL LOSS = .75, TOTAL EXCESS = 1.18

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
537.	1.42	(CFS)	78.	20.	19.	19.
		(INCHES)	1.177	1.177	1.177	1.177
		(AC-FT)	39.	39.	39.	39.

CUMULATIVE AREA = .62 SQ MI

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

HYDROGRAPH AT STATION I2
FOR PLAN 1, RATIO = .89

TOTAL RAINFALL = 2.52, TOTAL LOSS = .75, TOTAL EXCESS = 1.77

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
803.	1.42	(CFS)	118.	29.	28.	28.
		(INCHES)	1.766	1.766	1.766	1.766
		(AC-FT)	58.	58.	58.	58.

CUMULATIVE AREA = .62 SQ MI

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

HYDROGRAPH AT STATION I2
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 2.83, TOTAL LOSS = .76, TOTAL EXCESS = 2.07

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
937.	1.42	(CFS)	138.	35.	33.	33.
		(INCHES)	2.075	2.075	2.075	2.075
		(AC-FT)	69.	69.	69.	69.

CUMULATIVE AREA = .62 SQ MI

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

HYDROGRAPH AT STATION I2
FOR PLAN 1, RATIO = 1.20

TOTAL RAINFALL = 3.40, TOTAL LOSS = .76, TOTAL EXCESS = 2.64

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1184.	1.33	(CFS)	176.	44.	42.	42.
		(INCHES)	2.637	2.637	2.637	2.637
		(AC-FT)	87.	87.	87.	87.

CUMULATIVE AREA = .62 SQ MI

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          *           *
268 KK    *        59 *
          *           *
          **************
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HYDROGRAPH COMBINATION, FLOW FROM I1 AND I2

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270 HC          HYDROGRAPH COMBINATION
                     ICOMP          2  NUMBER OF HYDROGRAPHS TO COMBINE

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HYDROGRAPH AT STATION 59
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
4265.	1.50	(CFS)	715.	179.	172.	172.
		(INCHES)	1.188	1.188	1.188	1.188
		(AC-FT)	355.	355.	355.	355.

CUMULATIVE AREA = 5.60 SQ MI

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HYDROGRAPH AT STATION 59
FOR PLAN 1, RATIO = .89

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
6389.	1.50	(CFS)	1071.	268.	258.	258.
		(INCHES)	1.778	1.778	1.778	1.778
		(AC-FT)	531.	531.	531.	531.

CUMULATIVE AREA = 5.60 SQ MI

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    ***            ***            ***            ***            ***
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HYDROGRAPH AT STATION 59
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
7470.	1.50	(CFS)	1257.	314.	303.	303.
		(INCHES)	2.086	2.086	2.086	2.086
		(AC-FT)	623.	623.	623.	623.

CUMULATIVE AREA = 5.60 SQ MI

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HYDROGRAPH AT STATION 59
FOR PLAN 1, RATIO = 1.20

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
9393.	1.50	(CFS)	1595.	399.	384.	384.
		(INCHES)	2.649	2.649	2.649	2.649
		(AC-FT)	791.	791.	791.	791.

CUMULATIVE AREA = 5.60 SQ MI

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          *            *
271 KK    *       R59  *
          *            *
          **************
                         ROUTING 59 TO 63

             HYDROGRAPH ROUTING DATA

273 RM         MUSKINGUM ROUTING
                     NSTPS         5 NUMBER OF SUBREACHES
                     AMSKK       .54 MUSKINGUM K
                         X       .20 MUSKINGUM X

                                                          ***

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

                       HYDROGRAPH AT STATION      R59
                         FOR PLAN 1, RATIO =  .68

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
  3749.       2.08       (CFS)     715.        179.        172.        172.
                       (INCHES)   1.188       1.188       1.188       1.188
                        (AC-FT)    355.        355.        355.        355.

                       CUMULATIVE AREA =    5.60 SQ MI

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

                       HYDROGRAPH AT STATION      R59
                         FOR PLAN 1, RATIO =  .89

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
  5599.       2.08       (CFS)    1071.        268.        258.        258.
                       (INCHES)   1.778       1.778       1.778       1.778
                        (AC-FT)    531.        531.        531.        531.

                       CUMULATIVE AREA =    5.60 SQ MI

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

                       HYDROGRAPH AT STATION      R59
                         FOR PLAN 1, RATIO = 1.00

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
  6570.       2.00       (CFS)    1257.        314.        303.        303.
                       (INCHES)   2.086       2.086       2.086       2.086
                        (AC-FT)    623.        623.        623.        623.

                       CUMULATIVE AREA =    5.60 SQ MI

    ***            ***            ***            ***            ***
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HYDROGRAPH AT STATION R59
FOR PLAN 1, RATIO = 1.20

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
8312.	2.00	(CFS)	1595.	399.	384.	384.
		(INCHES)	2.649	2.649	2.649	2.649
		(AC-FT)	791.	791.	791.	791.

CUMULATIVE AREA = 5.60 SQ MI

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              *            *
274 KK        *        I3  *
              *            *
              **************
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RUNOFF FROM I3

SUBBASIN RUNOFF DATA

276 BA SUBBASIN CHARACTERISTICS
TAREA 1.07 SUBBASIN AREA

PRECIPITATION DATA

28 PB STORM 2.83 BASIN TOTAL PRECIPITATION

29 PI INCREMENTAL PRECIPITATION PATTERN

.01	.01	.01	.02	.02	.02	.06	.06	.06	.17
.17	.17	.03	.03	.03	.02	.02	.02	.01	.01
.01	.01	.01	.01						

277 LU UNIFORM LOSS RATE
STRTL .65 INITIAL LOSS
CNSTL .15 UNIFORM LOSS RATE
RTIMP .00 PERCENT IMPERVIOUS AREA

278 UD SCS DIMENSIONLESS UNITGRAPH
TLAG .43 LAG

***

UNIT HYDROGRAPH
28 END-OF-PERIOD ORDINATES

92.	278.	577.	906.	1074.	1089.	991.	840.	626.	453.
338.	259.	195.	145.	109.	81.	60.	45.	34.	26.
19.	15.	11.	9.	7.	4.	3.	1.		

TOTAL RAINFALL = 2.83, TOTAL LOSS = .85, TOTAL EXCESS = 1.98

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1708.	1.33	(CFS)	228.	57.	55.	55.
		(INCHES)	1.983	1.983	1.983	1.983
		(AC-FT)	113.	113.	113.	113.

CUMULATIVE AREA = 1.07 SQ MI

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

HYDROGRAPH AT STATION I3
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 1.92, TOTAL LOSS = .83, TOTAL EXCESS = 1.09

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
960.	1.33	(CFS)	126.	31.	30.	30.
		(INCHES)	1.091	1.091	1.091	1.091
		(AC-FT)	62.	62.	62.	62.

CUMULATIVE AREA = 1.07 SQ MI

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

HYDROGRAPH AT STATION I3
FOR PLAN 1, RATIO = .89

TOTAL RAINFALL = 2.52, TOTAL LOSS = .84, TOTAL EXCESS = 1.68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1457.	1.33	(CFS)	193.	48.	46.	46.
		(INCHES)	1.677	1.677	1.677	1.677
		(AC-FT)	96.	96.	96.	96.

CUMULATIVE AREA = 1.07 SQ MI

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

HYDROGRAPH AT STATION I3
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 2.83, TOTAL LOSS = .85, TOTAL EXCESS = 1.98

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1708.	1.33	(CFS)	228.	57.	55.	55.
		(INCHES)	1.983	1.983	1.983	1.983
		(AC-FT)	113.	113.	113.	113.

CUMULATIVE AREA = 1.07 SQ MI

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HYDROGRAPH AT STATION I3
FOR PLAN 1, RATIO = 1.20

TOTAL RAINFALL = 3.40, TOTAL LOSS = .85, TOTAL EXCESS = 2.54

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
2150.	1.33	(CFS)	292.	73.	70.	70.
		(INCHES)	2.541	2.541	2.541	2.541
		(AC-FT)	145.	145.	145.	145.

CUMULATIVE AREA = 1.07 SQ MI

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*            *
9 KK    *       63   *
*            *
**************
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NORTH GALLOWAY WASH ABOVE CONFLUENCE WITH ROWE WASH

281 HC HYDROGRAPH COMBINATION

ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

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

HYDROGRAPH AT STATION 63
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
3982.	2.00	(CFS)	841.	210.	202.	202.
		(INCHES)	1.172	1.172	1.172	1.172
		(AC-FT)	417.	417.	417.	417.

CUMULATIVE AREA = 6.67 SQ MI

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

HYDROGRAPH AT STATION 63
FOR PLAN 1, RATIO = .89

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
6010.	2.00	(CFS)	1264.	316.	304.	304.
		(INCHES)	1.762	1.762	1.762	1.762
		(AC-FT)	627.	627.	627.	627.

CUMULATIVE AREA = 6.67 SQ MI

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

HYDROGRAPH AT STATION 63
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
7053.	2.00	(CFS)	1485.	371.	358.	358.
		(INCHES)	2.070	2.070	2.070	2.070
		(AC-FT)	736.	736.	736.	736.

CUMULATIVE AREA = 6.67 SQ MI

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

HYDROGRAPH AT STATION 63
FOR PLAN 1, RATIO = 1.20

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
8919.	2.00	(CFS)	1888.	472.	455.	455.
		(INCHES)	2.632	2.632	2.632	2.632
		(AC-FT)	936.	936.	936.	936.

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                    CUMULATIVE AREA =    6.67 SQ MI

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

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282 KK    *      H1E   *
          *            *
          **************
                    BEGIN ROWE WASH
                    RUNOFF FROM H1E

            SUBBASIN RUNOFF DATA

285 BA        SUBBASIN CHARACTERISTICS
                  TAREA          .13  SUBBASIN AREA

              PRECIPITATION DATA

 28 PB            STORM         2.83  BASIN TOTAL PRECIPITATION

 29 PI          INCREMENTAL PRECIPITATION PATTERN
                  .01     .01     .01     .02     .02     .02     .06     .06     .06     .17
                  .17     .17     .03     .03     .03     .02     .02     .02     .01     .01
                  .01     .01     .01     .01

286 LU        UNIFORM LOSS RATE
                  STRTL          .65  INITIAL LOSS
                  CNSTL          .06  UNIFORM LOSS RATE
                  RTIMP          .00  PERCENT IMPERVIOUS AREA

287 UD        SCS DIMENSIONLESS UNITGRAPH
                  TLAG           .13  LAG

                                                  ***

                                              UNIT HYDROGRAPH
                                          10 END-OF-PERIOD ORDINATES
          165.    367.    267.    114.     52.     24.     11.      5.      2.      1.

   TOTAL RAINFALL =   2.83, TOTAL LOSS =    .73, TOTAL EXCESS =   2.10

PEAK FLOW    TIME                          MAXIMUM AVERAGE FLOW
  (CFS)      (HR)                 6-HR      24-HR      72-HR     24.92-HR
   397.      1.00       (CFS)      29.         7.         7.          7.
                      (INCHES)   2.101      2.101      2.101       2.101
                      (AC-FT)     15.        15.        15.         15.

                      CUMULATIVE AREA =    .13 SQ MI

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

                    HYDROGRAPH AT STATION      H1E
                      FOR PLAN 1, RATIO =  .68

   TOTAL RAINFALL =   1.92, TOTAL LOSS =    .72, TOTAL EXCESS =   1.20

PEAK FLOW    TIME                          MAXIMUM AVERAGE FLOW
  (CFS)      (HR)                 6-HR      24-HR      72-HR     24.92-HR
   237.      1.08       (CFS)      17.         4.         4.          4.
```

(INCHES)	1.201	1.201	1.201	1.201
(AC-FT)	8.	8.	8.	8.

CUMULATIVE AREA = .13 SQ MI

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HYDROGRAPH AT STATION H1E
FOR PLAN 1, RATIO = .89

TOTAL RAINFALL = 2.52, TOTAL LOSS = .73, TOTAL EXCESS = 1.79

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
345.	1.00	(CFS)	25.	6.	6.	6.
		(INCHES)	1.792	1.792	1.792	1.792
		(AC-FT)	12.	12.	12.	12.

CUMULATIVE AREA = .13 SQ MI

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

HYDROGRAPH AT STATION H1E
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 2.83, TOTAL LOSS = .73, TOTAL EXCESS = 2.10

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
397.	1.00	(CFS)	29.	7.	7.	7.
		(INCHES)	2.101	2.101	2.101	2.101
		(AC-FT)	15.	15.	15.	15.

CUMULATIVE AREA = .13 SQ MI

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

HYDROGRAPH AT STATION H1E
FOR PLAN 1, RATIO = 1.20

TOTAL RAINFALL = 3.40, TOTAL LOSS = .73, TOTAL EXCESS = 2.66

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
486.	1.00	(CFS)	37.	9.	9.	9.
		(INCHES)	2.664	2.664	2.664	2.664
		(AC-FT)	18.	18.	18.	18.

CUMULATIVE AREA = .13 SQ MI

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288 KK

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*            *
*     H1F    *
*            *
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RUNOFF FROM H1F

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                SUBBASIN RUNOFF DATA

290 BA            SUBBASIN CHARACTERISTICS
                       TAREA          .12  SUBBASIN AREA

                  PRECIPITATION DATA

 28 PB                 STORM         2.83  BASIN TOTAL PRECIPITATION

 29 PI              INCREMENTAL PRECIPITATION PATTERN
                      .01       .01       .01       .02       .02       .02       .06       .06       .06       .17
                      .17       .17       .03       .03       .03       .02       .02       .02       .01       .01
                      .01       .01       .01       .01

291 LU            UNIFORM LOSS RATE
                       STRTL          .65  INITIAL LOSS
                       CNSTL          .06  UNIFORM LOSS RATE
                       RTIMP          .00  PERCENT IMPERVIOUS AREA

292 UD            SCS DIMENSIONLESS UNITGRAPH
                        TLAG          .14  LAG

                                                          ***

                                                     UNIT HYDROGRAPH
                                               10 END-OF-PERIOD ORDINATES
              129.      318.      256.      118.       57.       27.       13.        6.        3.        1.

   TOTAL RAINFALL =    2.83, TOTAL LOSS =     .73, TOTAL EXCESS =    2.10

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
   352.       1.00       (CFS)      27.         7.          7.          7.
                        (INCHES)   2.101       2.101       2.101       2.101
                        (AC-FT)     13.         13.         13.         13.

                       CUMULATIVE AREA =     .12 SQ MI

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

                     HYDROGRAPH AT STATION      H1F
                       FOR PLAN 1, RATIO =  .68

   TOTAL RAINFALL =    1.92, TOTAL LOSS =     .72, TOTAL EXCESS =    1.20

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
   217.       1.08       (CFS)      16.         4.          4.          4.
                        (INCHES)   1.201       1.201       1.201       1.201
                        (AC-FT)      8.          8.          8.          8.

                       CUMULATIVE AREA =     .12 SQ MI

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

                     HYDROGRAPH AT STATION      H1F
                       FOR PLAN 1, RATIO =  .89

   TOTAL RAINFALL =    2.52, TOTAL LOSS =     .73, TOTAL EXCESS =    1.79

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
   305.       1.08       (CFS)      23.         6.          6.          6.
                        (INCHES)   1.792       1.792       1.792       1.792
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                    (AC-FT)       11.         11.         11.         11.

                    CUMULATIVE AREA =     .12 SQ MI

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

                     HYDROGRAPH AT STATION      H1F
                       FOR PLAN 1, RATIO = 1.00

   TOTAL RAINFALL =    2.83, TOTAL LOSS =     .73, TOTAL EXCESS =    2.10

 PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)        (HR)                 6-HR       24-HR       72-HR     24.92-HR
   352.        1.00       (CFS)      27.         7.          7.          7.
                        (INCHES)    2.101       2.101       2.101       2.101
                        (AC-FT)      13.         13.         13.         13.

                    CUMULATIVE AREA =     .12 SQ MI


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

                     HYDROGRAPH AT STATION      H1F
                       FOR PLAN 1, RATIO = 1.20

   TOTAL RAINFALL =    3.40, TOTAL LOSS =     .73, TOTAL EXCESS =    2.66

 PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)        (HR)                 6-HR       24-HR       72-HR     24.92-HR
   433.        1.00       (CFS)      34.         9.          8.          8.
                        (INCHES)    2.664       2.664       2.664       2.664
                        (AC-FT)      17.         17.         17.         17.

                    CUMULATIVE AREA =     .12 SQ MI


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          *            *
293 KK    *        53  *
          *            *
          **************
                     HYDROGRAPH COMBINATION, FLOW FROM H1E AND H1F

295 HC          HYDROGRAPH COMBINATION
                     ICOMP          2  NUMBER OF HYDROGRAPHS TO COMBINE

                                                   ***

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

                     HYDROGRAPH AT STATION       53
                       FOR PLAN 1, RATIO =  .68

 PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)        (HR)                 6-HR       24-HR       72-HR     24.92-HR
   453.        1.08       (CFS)      32.         8.          8.          8.
                        (INCHES)    1.201       1.201       1.201       1.201
                        (AC-FT)      16.         16.         16.         16.

                    CUMULATIVE AREA =     .25 SQ MI
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                HYDROGRAPH AT STATION       53
                  FOR PLAN 1, RATIO =  .89

PEAK FLOW    TIME                        MAXIMUM AVERAGE FLOW
  (CFS)      (HR)                 6-HR      24-HR      72-HR    24.92-HR
   649.      1.00       (CFS)      48.        12.        12.        12.
                      (INCHES)   1.792      1.792      1.792      1.792
                       (AC-FT)    24.        24.        24.        24.

                     CUMULATIVE AREA =     .25 SQ MI


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

                HYDROGRAPH AT STATION       53
                  FOR PLAN 1, RATIO = 1.00

PEAK FLOW    TIME                        MAXIMUM AVERAGE FLOW
  (CFS)      (HR)                 6-HR      24-HR      72-HR    24.92-HR
   749.      1.00       (CFS)      56.        14.        14.        14.
                      (INCHES)   2.101      2.101      2.101      2.101
                       (AC-FT)    28.        28.        28.        28.

                     CUMULATIVE AREA =     .25 SQ MI


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

                HYDROGRAPH AT STATION       53
                  FOR PLAN 1, RATIO = 1.20

PEAK FLOW    TIME                        MAXIMUM AVERAGE FLOW
  (CFS)      (HR)                 6-HR      24-HR      72-HR    24.92-HR
   920.      1.00       (CFS)      72.        18.        17.        17.
                      (INCHES)   2.664      2.664      2.664      2.664
                       (AC-FT)    36.        36.        36.        36.

                     CUMULATIVE AREA =     .25 SQ MI


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          *            *
296 KK    *      R53   *
          *            *
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                ROUTING 53 TO 50

          HYDROGRAPH ROUTING DATA

298 RM        MUSKINGUM ROUTING
                  NSTPS        1 NUMBER OF SUBREACHES
                  AMSKK      .11 MUSKINGUM K
                      X      .20 MUSKINGUM X

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HYDROGRAPH AT STATION R53
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
396.	1.17	(CFS)	32.	8.	8.	8.
		(INCHES)	1.201	1.201	1.201	1.201
		(AC-FT)	16.	16.	16.	16.

CUMULATIVE AREA = .25 SQ MI

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

HYDROGRAPH AT STATION R53
FOR PLAN 1, RATIO = .89

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
573.	1.17	(CFS)	48.	12.	12.	12.
		(INCHES)	1.792	1.792	1.792	1.792
		(AC-FT)	24.	24.	24.	24.

CUMULATIVE AREA = .25 SQ MI

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

HYDROGRAPH AT STATION R53
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
658.	1.17	(CFS)	56.	14.	14.	14.
		(INCHES)	2.101	2.101	2.101	2.101
		(AC-FT)	28.	28.	28.	28.

CUMULATIVE AREA = .25 SQ MI

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

HYDROGRAPH AT STATION R53
FOR PLAN 1, RATIO = 1.20

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
806.	1.17	(CFS)	72.	18.	17.	17.
		(INCHES)	2.664	2.664	2.664	2.664
		(AC-FT)	36.	36.	36.	36.

CUMULATIVE AREA = .25 SQ MI

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299 KK        *     H1     *
              *            *
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RUNOFF FROM H1

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                SUBBASIN RUNOFF DATA

301 BA            SUBBASIN CHARACTERISTICS
                       TAREA          .24  SUBBASIN AREA

                  PRECIPITATION DATA

 28 PB                 STORM         2.83  BASIN TOTAL PRECIPITATION

 29 PI              INCREMENTAL PRECIPITATION PATTERN
                       .01       .01       .01       .02       .02       .02       .06       .06       .06       .17
                       .17       .17       .03       .03       .03       .02       .02       .02       .01       .01
                       .01       .01       .01       .01

302 LU            UNIFORM LOSS RATE
                       STRTL          .65  INITIAL LOSS
                       CNSTL          .06  UNIFORM LOSS RATE
                       RTIMP          .00  PERCENT IMPERVIOUS AREA

303 UD            SCS DIMENSIONLESS UNITGRAPH
                       TLAG          .13  LAG

                                                          ***

                                                   UNIT HYDROGRAPH
                                              10 END-OF-PERIOD ORDINATES
              304.      678.      492.      210.       96.       44.       20.        9.        4.        1.

   TOTAL RAINFALL =    2.83, TOTAL LOSS =     .73, TOTAL EXCESS =    2.10

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   732.       1.00        (CFS)      54.         14.         13.         13.
                         (INCHES)   2.101       2.101       2.101       2.101
                         (AC-FT)     27.         27.         27.         27.

                         CUMULATIVE AREA =     .24 SQ MI


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

                       HYDROGRAPH AT STATION       H1
                         FOR PLAN 1, RATIO =  .68

   TOTAL RAINFALL =    1.92, TOTAL LOSS =     .72, TOTAL EXCESS =    1.20

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   437.       1.08        (CFS)      31.          8.          7.          7.
                         (INCHES)   1.201       1.201       1.201       1.201
                         (AC-FT)     15.         15.         15.         15.

                         CUMULATIVE AREA =     .24 SQ MI


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

                       HYDROGRAPH AT STATION       H1
                         FOR PLAN 1, RATIO =  .89

   TOTAL RAINFALL =    2.52, TOTAL LOSS =     .73, TOTAL EXCESS =    1.79

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   636.       1.00        (CFS)      46.         12.         11.         11.
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                    (INCHES)     1.792       1.792       1.792       1.792
                     (AC-FT)      23.         23.         23.         23.

                    CUMULATIVE AREA =     .24 SQ MI


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

                     HYDROGRAPH AT STATION       H1
                       FOR PLAN 1, RATIO = 1.00

  TOTAL RAINFALL =    2.83, TOTAL LOSS =     .73, TOTAL EXCESS =    2.10

 PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)        (HR)                 6-HR       24-HR       72-HR     24.92-HR
   732.        1.00       (CFS)      54.         14.         13.         13.
                         (INCHES)    2.101       2.101       2.101       2.101
                          (AC-FT)     27.         27.         27.         27.

                    CUMULATIVE AREA =     .24 SQ MI


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

                     HYDROGRAPH AT STATION       H1
                       FOR PLAN 1, RATIO = 1.20

  TOTAL RAINFALL =    3.40, TOTAL LOSS =     .73, TOTAL EXCESS =    2.66

 PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)        (HR)                 6-HR       24-HR       72-HR     24.92-HR
   898.        1.00       (CFS)      69.         17.         17.         17.
                         (INCHES)    2.664       2.664       2.664       2.664
                          (AC-FT)     34.         34.         34.         34.

                    CUMULATIVE AREA =     .24 SQ MI


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          *            *
304 KK    *      50A   *
          *            *
          **************
                    HYDROGRAPH COMBINATION, FLOW FROM 53 AND H1; ABOVE CONFLUENCE

306 HC          HYDROGRAPH COMBINATION
                     ICOMP           2  NUMBER OF HYDROGRAPHS TO COMBINE

                                                          ***

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

                     HYDROGRAPH AT STATION      50A
                       FOR PLAN 1, RATIO =  .68

 PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)        (HR)                 6-HR       24-HR       72-HR     24.92-HR
   790.        1.08       (CFS)      63.         16.         15.         15.
                         (INCHES)    1.201       1.201       1.201       1.201
                          (AC-FT)     31.         31.         31.         31.
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                    CUMULATIVE AREA =     .49 SQ MI

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

                    HYDROGRAPH AT STATION      50A
                      FOR PLAN 1, RATIO =  .89

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR      24-HR      72-HR     24.92-HR
   1158.      1.08       (CFS)       94.        24.        23.         23.
                       (INCHES)    1.792      1.792      1.792       1.792
                        (AC-FT)     47.        47.        47.         47.

                    CUMULATIVE AREA =     .49 SQ MI

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

                    HYDROGRAPH AT STATION      50A
                      FOR PLAN 1, RATIO = 1.00

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR      24-HR      72-HR     24.92-HR
   1334.      1.08       (CFS)      111.        28.        27.         27.
                       (INCHES)    2.101      2.101      2.101       2.101
                        (AC-FT)     55.        55.        55.         55.

                    CUMULATIVE AREA =     .49 SQ MI

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

                    HYDROGRAPH AT STATION      50A
                      FOR PLAN 1, RATIO = 1.20

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR      24-HR      72-HR     24.92-HR
   1639.      1.08       (CFS)      140.        35.        34.         34.
                       (INCHES)    2.664      2.664      2.664       2.664
                        (AC-FT)     70.        70.        70.         70.

                    CUMULATIVE AREA =     .49 SQ MI


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307 KK    *       H1C  *
          *            *
          **************
                        RUNOFF FROM H1C

             SUBBASIN RUNOFF DATA

309 BA          SUBBASIN CHARACTERISTICS
                      TAREA         .25  SUBBASIN AREA

                PRECIPITATION DATA

 28 PB                STORM        2.83  BASIN TOTAL PRECIPITATION
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 29 PI          INCREMENTAL PRECIPITATION PATTERN
                  .01      .01      .01      .02      .02      .02      .06      .06      .06      .17
                  .17      .17      .03      .03      .03      .02      .02      .02      .01      .01
                  .01      .01      .01      .01

 10 LU         UNIFORM LOSS RATE
                  STRTL        .65  INITIAL LOSS
                  CNSTL        .06  UNIFORM LOSS RATE
                  RTIMP        .00  PERCENT IMPERVIOUS AREA

311 UD         SCS DIMENSIONLESS UNITGRAPH
                  TLAG         .16  LAG

                                                  ***

                                                UNIT HYDROGRAPH
                                            12 END-OF-PERIOD ORDINATES
          200.     571.     545.     306.     155.      79.      40.      21.      11.       6.
            3.       0.

   TOTAL RAINFALL =    2.83, TOTAL LOSS =     .73, TOTAL EXCESS =    2.10

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
   714.       1.08       (CFS)      56.         14.         14.         14.
                       (INCHES)    2.101       2.101       2.101       2.101
                       (AC-FT)     28.         28.         28.         28.

                       CUMULATIVE AREA =     .25 SQ MI


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

                     HYDROGRAPH AT STATION      H1C
                       FOR PLAN 1, RATIO =  .68

   TOTAL RAINFALL =    1.92, TOTAL LOSS =     .72, TOTAL EXCESS =    1.20

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
   435.       1.08       (CFS)      32.          8.          8.          8.
                       (INCHES)    1.201       1.201       1.201       1.201
                       (AC-FT)     16.         16.         16.         16.

                       CUMULATIVE AREA =     .25 SQ MI


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

                     HYDROGRAPH AT STATION      H1C
                       FOR PLAN 1, RATIO =  .89

   TOTAL RAINFALL =    2.52, TOTAL LOSS =     .73, TOTAL EXCESS =    1.79

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
   624.       1.08       (CFS)      48.         12.         12.         12.
                       (INCHES)    1.792       1.792       1.792       1.792
                       (AC-FT)     24.         24.         24.         24.

                       CUMULATIVE AREA =     .25 SQ MI


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

                     HYDROGRAPH AT STATION      H1C
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FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 2.83, TOTAL LOSS = .73, TOTAL EXCESS = 2.10

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
714.	1.08	(CFS)	56.	14.	14.	14.
		(INCHES)	2.101	2.101	2.101	2.101
		(AC-FT)	28.	28.	28.	28.

CUMULATIVE AREA = .25 SQ MI

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HYDROGRAPH AT STATION H1C
FOR PLAN 1, RATIO = 1.20

TOTAL RAINFALL = 3.40, TOTAL LOSS = .73, TOTAL EXCESS = 2.66

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
872.	1.08	(CFS)	72.	18.	17.	17.
		(INCHES)	2.664	2.664	2.664	2.664
		(AC-FT)	36.	36.	36.	36.

CUMULATIVE AREA = .25 SQ MI

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          *            *
312 KK    *        50  *
          *            *
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HYDROGRAPH COMBINATION, FLOW FROM 53, H1 AND H1C; BELOW CONFLUENCE

314 HC HYDROGRAPH COMBINATION
ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

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

HYDROGRAPH AT STATION 50
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1225.	1.08	(CFS)	96.	24.	23.	23.
		(INCHES)	1.201	1.201	1.201	1.201
		(AC-FT)	47.	47.	47.	47.

CUMULATIVE AREA = .74 SQ MI

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HYDROGRAPH AT STATION 50
FOR PLAN 1, RATIO = .89

PEAK FLOW TIME MAXIMUM AVERAGE FLOW

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 (CFS)      (HR)                  6-HR       24-HR       72-HR     24.92-HR
  1782.     1.08       (CFS)      143.         36.         34.         34.
                     (INCHES)    1.792       1.792       1.792       1.792
                      (AC-FT)     71.         71.         71.         71.

                   CUMULATIVE AREA =     .74 SQ MI


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

                     HYDROGRAPH AT STATION       50
                       FOR PLAN 1, RATIO = 1.00

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
 (CFS)        (HR)                  6-HR       24-HR       72-HR     24.92-HR
  2048.       1.08       (CFS)      167.         42.         40.         40.
                     (INCHES)    2.101       2.101       2.101       2.101
                      (AC-FT)     83.         83.         83.         83.

                   CUMULATIVE AREA =     .74 SQ MI


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

                     HYDROGRAPH AT STATION       50
                       FOR PLAN 1, RATIO = 1.20

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
 (CFS)        (HR)                  6-HR       24-HR       72-HR     24.92-HR
  2512.       1.08       (CFS)      212.         53.         51.         51.
                     (INCHES)    2.664       2.664       2.664       2.664
                      (AC-FT)    105.        105.        105.        105.

                   CUMULATIVE AREA =     .74 SQ MI


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          *            *
315 KK    *      H1D   *
          *            *
          **************
                      RUNOFF FROM H1D

            SUBBASIN RUNOFF DATA

317 BA        SUBBASIN CHARACTERISTICS
                   TAREA          .09  SUBBASIN AREA

              PRECIPITATION DATA

 28 PB             STORM         2.83  BASIN TOTAL PRECIPITATION

 29 PI          INCREMENTAL PRECIPITATION PATTERN
                   .01       .01       .01       .02       .02       .02       .06       .06       .06       .17
                   .17       .17       .03       .03       .03       .02       .02       .02       .01       .01
                   .01       .01       .01       .01

318 LU        UNIFORM LOSS RATE
                   STRTL          .65  INITIAL LOSS
                   CNSTL          .12  UNIFORM LOSS RATE
                   RTIMP          .00  PERCENT IMPERVIOUS AREA
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319 UD SCS DIMENSIONLESS UNITGRAPH
TLAG .14 LAG

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UNIT HYDROGRAPH
10 END-OF-PERIOD ORDINATES

97.	238.	192.	89.	43.	20.	9.	5.	2.	1.

TOTAL RAINFALL = 2.83, TOTAL LOSS = .81, TOTAL EXCESS = 2.02

PEAK FLOW (CFS)	TIME (HR)		6-HR	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR
261.	1.00	(CFS)	20.	5.	5.	5.
		(INCHES)	2.022	2.022	2.022	2.022
		(AC-FT)	10.	10.	10.	10.

CUMULATIVE AREA = .09 SQ MI

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HYDROGRAPH AT STATION H1D
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 1.92, TOTAL LOSS = .80, TOTAL EXCESS = 1.13

PEAK FLOW (CFS)	TIME (HR)		6-HR	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR
160.	1.08	(CFS)	11.	3.	3.	3.
		(INCHES)	1.128	1.128	1.128	1.128
		(AC-FT)	5.	5.	5.	5.

CUMULATIVE AREA = .09 SQ MI

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

HYDROGRAPH AT STATION H1D
FOR PLAN 1, RATIO = .89

TOTAL RAINFALL = 2.52, TOTAL LOSS = .80, TOTAL EXCESS = 1.72

PEAK FLOW (CFS)	TIME (HR)		6-HR	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR
226.	1.00	(CFS)	17.	4.	4.	4.
		(INCHES)	1.715	1.715	1.715	1.715
		(AC-FT)	8.	8.	8.	8.

CUMULATIVE AREA = .09 SQ MI

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

HYDROGRAPH AT STATION H1D
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 2.83, TOTAL LOSS = .81, TOTAL EXCESS = 2.02

PEAK FLOW (CFS)	TIME (HR)		6-HR	MAXIMUM AVERAGE FLOW 24-HR	72-HR	24.92-HR
261.	1.00	(CFS)	20.	5.	5.	5.
		(INCHES)	2.022	2.022	2.022	2.022
		(AC-FT)	10.	10.	10.	10.

CUMULATIVE AREA = .09 SQ MI

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HYDROGRAPH AT STATION H1D
FOR PLAN 1, RATIO = 1.20

TOTAL RAINFALL = 3.40, TOTAL LOSS = .81, TOTAL EXCESS = 2.58

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
322.	1.00	(CFS)	25.	6.	6.	6.
		(INCHES)	2.582	2.582	2.582	2.582
		(AC-FT)	12.	12.	12.	12.

CUMULATIVE AREA = .09 SQ MI

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320 KK    *      51B   *
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HYDROGRAPH COMBINATION, FLOW FROM 50 AND H1D; ABOVE CONFLUENCE

322 HC HYDROGRAPH COMBINATION
ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

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HYDROGRAPH AT STATION 51B
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1384.	1.08	(CFS)	107.	27.	26.	26.
		(INCHES)	1.193	1.193	1.193	1.193
		(AC-FT)	53.	53.	53.	53.

CUMULATIVE AREA = .83 SQ MI

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HYDROGRAPH AT STATION 51B
FOR PLAN 1, RATIO = .89

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
2007.	1.08	(CFS)	159.	40.	38.	38.
		(INCHES)	1.784	1.784	1.784	1.784
		(AC-FT)	79.	79.	79.	79.

CUMULATIVE AREA = .83 SQ MI

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HYDROGRAPH AT STATION 51B
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
2305.	1.08	(CFS)	187.	47.	45.	45.
		(INCHES)	2.093	2.093	2.093	2.093
		(AC-FT)	93.	93.	93.	93.

CUMULATIVE AREA = .83 SQ MI

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

HYDROGRAPH AT STATION 51B
FOR PLAN 1, RATIO = 1.20

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
2825.	1.08	(CFS)	237.	59.	57.	57.
		(INCHES)	2.655	2.655	2.655	2.655
		(AC-FT)	118.	118.	118.	118.

CUMULATIVE AREA = .83 SQ MI

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              *            *
23 KK         *      H1A   *
              *            *
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RUNOFF FROM H1A
BEGIN GRAPEVINE WASH

SUBBASIN RUNOFF DATA

326 BA SUBBASIN CHARACTERISTICS
TAREA 3.48 SUBBASIN AREA

PRECIPITATION DATA

28 PB STORM 2.83 BASIN TOTAL PRECIPITATION

29 PI INCREMENTAL PRECIPITATION PATTERN

.01	.01	.01	.02	.02	.02	.06	.06	.06	.17
.17	.17	.03	.03	.03	.02	.02	.02	.01	.01
.01	.01	.01	.01						

327 LU UNIFORM LOSS RATE
STRTL .65 INITIAL LOSS
CNSTL .06 UNIFORM LOSS RATE
RTIMP .00 PERCENT IMPERVIOUS AREA

328 UD SCS DIMENSIONLESS UNITGRAPH
TLAG .44 LAG

***

UNIT HYDROGRAPH
28 END-OF-PERIOD ORDINATES

283.	856.	1767.	2819.	3384.	3479.	3220.	2768.	2135.	1533.

1147.	881.	671.	498.	377.	286.	215.	162.	123.	93.
70.	52.	40.	32.	25.	18.	11.	5.		

TOTAL RAINFALL = 2.83, TOTAL LOSS = .73, TOTAL EXCESS = 2.10

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
5594.	1.33	(CFS)	786.	197.	189.	189.
		(INCHES)	2.101	2.101	2.101	2.101
		(AC-FT)	390.	390.	390.	390.

CUMULATIVE AREA = 3.48 SQ MI

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HYDROGRAPH AT STATION H1A
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 1.92, TOTAL LOSS = .72, TOTAL EXCESS = 1.20

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
3166.	1.33	(CFS)	450.	112.	108.	108.
		(INCHES)	1.201	1.201	1.201	1.201
		(AC-FT)	223.	223.	223.	223.

CUMULATIVE AREA = 3.48 SQ MI

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

HYDROGRAPH AT STATION H1A
FOR PLAN 1, RATIO = .89

TOTAL RAINFALL = 2.52, TOTAL LOSS = .73, TOTAL EXCESS = 1.79

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
4777.	1.33	(CFS)	671.	168.	162.	162.
		(INCHES)	1.792	1.792	1.792	1.792
		(AC-FT)	333.	333.	333.	333.

CUMULATIVE AREA = 3.48 SQ MI

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

HYDROGRAPH AT STATION H1A
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 2.83, TOTAL LOSS = .73, TOTAL EXCESS = 2.10

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
5594.	1.33	(CFS)	786.	197.	189.	189.
		(INCHES)	2.101	2.101	2.101	2.101
		(AC-FT)	390.	390.	390.	390.

CUMULATIVE AREA = 3.48 SQ MI

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HYDROGRAPH AT STATION H1A
FOR PLAN 1, RATIO = 1.20

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   TOTAL RAINFALL =    3.40, TOTAL LOSS =     .73, TOTAL EXCESS =    2.66

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   7032.      1.33        (CFS)     997.        249.        240.        240.
                        (INCHES)   2.664       2.664       2.664       2.664
                         (AC-FT)    494.        494.        494.        494.

                        CUMULATIVE AREA =    3.48 SQ MI


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          *            *
329 KK    *       R49  *
          *            *
          **************
                         ROUTING 49 TO 51A

             HYDROGRAPH ROUTING DATA

331 RM          MUSKINGUM ROUTING
                      NSTPS         3 NUMBER OF SUBREACHES
                      AMSKK       .35 MUSKINGUM K
                          X       .20 MUSKINGUM X

                                                          ***

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

                        HYDROGRAPH AT STATION      R49
                          FOR PLAN 1, RATIO =  .68

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   2791.      1.75        (CFS)     450.        112.        108.        108.
                        (INCHES)   1.201       1.201       1.201       1.201
                         (AC-FT)    223.        223.        223.        223.

                        CUMULATIVE AREA =    3.48 SQ MI


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

                        HYDROGRAPH AT STATION      R49
                          FOR PLAN 1, RATIO =  .89

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   4157.      1.75        (CFS)     671.        168.        162.        162.
                        (INCHES)   1.792       1.792       1.792       1.792
                         (AC-FT)    333.        333.        333.        333.

                        CUMULATIVE AREA =    3.48 SQ MI


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

                        HYDROGRAPH AT STATION      R49
                          FOR PLAN 1, RATIO = 1.00
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PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   4860.      1.67        (CFS)     786.        197.        189.        189.
                        (INCHES)   2.101       2.101       2.101       2.101
                         (AC-FT)    390.        390.        390.        390.

                       CUMULATIVE AREA =    3.48 SQ MI


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

                       HYDROGRAPH AT STATION      R49
                         FOR PLAN 1, RATIO = 1.20

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   6139.      1.67        (CFS)     997.        249.        240.        240.
                        (INCHES)   2.664       2.664       2.664       2.664
                         (AC-FT)    494.        494.        494.        494.

                       CUMULATIVE AREA =    3.48 SQ MI


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          *            *
332 KK    *      H1B   *
          *            *
          **************
                         RUNOFF FROM H1B

            SUBBASIN RUNOFF DATA

334 BA          SUBBASIN CHARACTERISTICS
                     TAREA          .32  SUBBASIN AREA

                PRECIPITATION DATA

 28 PB               STORM        2.83  BASIN TOTAL PRECIPITATION

 29 PI            INCREMENTAL PRECIPITATION PATTERN
                     .01       .01       .01       .02       .02       .02       .06       .06       .06       .17
                     .17       .17       .03       .03       .03       .02       .02       .02       .01       .01
                     .01       .01       .01       .01

335 LU          UNIFORM LOSS RATE
                     STRTL          .65  INITIAL LOSS
                     CNSTL          .09  UNIFORM LOSS RATE
                     RTIMP          .00  PERCENT IMPERVIOUS AREA

336 UD          SCS DIMENSIONLESS UNITGRAPH
                      TLAG          .22  LAG

                                                   ***

                                                UNIT HYDROGRAPH
                                            15 END-OF-PERIOD ORDINATES
            126.      426.      590.      520.      337.      192.      117.       70.       41.       24.
             15.        9.        6.        3.        1.

   TOTAL RAINFALL =    2.83, TOTAL LOSS =     .77, TOTAL EXCESS =    2.06
```

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
784.	1.08	(CFS)	71.	18.	17.	17.
		(INCHES)	2.062	2.062	2.062	2.062
		(AC-FT)	35.	35.	35.	35.

CUMULATIVE AREA = .32 SQ MI

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

HYDROGRAPH AT STATION H1B
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 1.92, TOTAL LOSS = .76, TOTAL EXCESS = 1.16

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
452.	1.17	(CFS)	40.	10.	10.	10.
		(INCHES)	1.164	1.164	1.164	1.164
		(AC-FT)	20.	20.	20.	20.

CUMULATIVE AREA = .32 SQ MI

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

HYDROGRAPH AT STATION H1B
FOR PLAN 1, RATIO = .89

TOTAL RAINFALL = 2.52, TOTAL LOSS = .77, TOTAL EXCESS = 1.75

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
673.	1.08	(CFS)	60.	15.	15.	15.
		(INCHES)	1.754	1.754	1.754	1.754
		(AC-FT)	30.	30.	30.	30.

CUMULATIVE AREA = .32 SQ MI

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

HYDROGRAPH AT STATION H1B
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 2.83, TOTAL LOSS = .77, TOTAL EXCESS = 2.06

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
784.	1.08	(CFS)	71.	18.	17.	17.
		(INCHES)	2.062	2.062	2.062	2.062
		(AC-FT)	35.	35.	35.	35.

CUMULATIVE AREA = .32 SQ MI

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HYDROGRAPH AT STATION H1B
FOR PLAN 1, RATIO = 1.20

TOTAL RAINFALL = 3.40, TOTAL LOSS = .77, TOTAL EXCESS = 2.62

PEAK FLOW (CFS)	TIME (HR)	MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR

974.	1.08	(CFS)	90.	23.	22.	22.
		(INCHES)	2.623	2.623	2.623	2.623
		(AC-FT)	45.	45.	45.	45.

CUMULATIVE AREA = .32 SQ MI

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          *            *
337 KK    *      51A   *
          *            *
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HYDROGRAPH COMBINATION, FLOW FROM H1A AND H1B;
ABOVE CONFLUENCE WITH ROWE WASH

340 HC HYDROGRAPH COMBINATION
ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

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

HYDROGRAPH AT STATION 51A
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
2865.	1.75	(CFS)	490.	122.	118.	118.
		(INCHES)	1.198	1.198	1.198	1.198
		(AC-FT)	243.	243.	243.	243.

CUMULATIVE AREA = 3.80 SQ MI

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

HYDROGRAPH AT STATION 51A
FOR PLAN 1, RATIO = .89

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
4266.	1.67	(CFS)	731.	183.	176.	176.
		(INCHES)	1.789	1.789	1.789	1.789
		(AC-FT)	363.	363.	363.	363.

CUMULATIVE AREA = 3.80 SQ MI

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HYDROGRAPH AT STATION 51A
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
5004.	1.67	(CFS)	857.	214.	206.	206.
		(INCHES)	2.098	2.098	2.098	2.098
		(AC-FT)	425.	425.	425.	425.

CUMULATIVE AREA = 3.80 SQ MI

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

                    HYDROGRAPH AT STATION      51A
                      FOR PLAN 1, RATIO = 1.20

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
   6316.      1.67       (CFS)     1087.       272.        262.        262.
                       (INCHES)    2.661      2.661       2.661       2.661
                        (AC-FT)     539.       539.        539.        539.

                     CUMULATIVE AREA =    3.80 SQ MI


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          *            *
341 KK    *        51  *
          *            *
          **************
                    HYDROGRAPH COMBINATION, FLOW FROM H1A, H1B, H1D AND 50;
                    BELOW CONFLUENCE OF ROWE/GRAPEVINE WASH

344 HC          HYDROGRAPH COMBINATION
                     ICOMP          2  NUMBER OF HYDROGRAPHS TO COMBINE

                                                          ***

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

                    HYDROGRAPH AT STATION       51
                      FOR PLAN 1, RATIO =  .68

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
   3033.      1.75       (CFS)     596.        149.        144.        144.
                       (INCHES)    1.197      1.197       1.197       1.197
                        (AC-FT)     296.       296.        296.        296.

                     CUMULATIVE AREA =    4.63 SQ MI

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

                    HYDROGRAPH AT STATION       51
                      FOR PLAN 1, RATIO =  .89

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
   4531.      1.67       (CFS)     890.        223.        214.        214.
                       (INCHES)    1.788      1.788       1.788       1.788
                        (AC-FT)     441.       441.        441.        441.

                     CUMULATIVE AREA =    4.63 SQ MI

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

                    HYDROGRAPH AT STATION       51
                      FOR PLAN 1, RATIO = 1.00
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PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
5307.	1.67	(CFS)	1044.	261.	251.	251.
		(INCHES)	2.097	2.097	2.097	2.097
		(AC-FT)	518.	518.	518.	518.

CUMULATIVE AREA = 4.63 SQ MI

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HYDROGRAPH AT STATION 51
FOR PLAN 1, RATIO = 1.20

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
6687.	1.67	(CFS)	1324.	331.	319.	319.
		(INCHES)	2.660	2.660	2.660	2.660
		(AC-FT)	657.	657.	657.	657.

CUMULATIVE AREA = 4.63 SQ MI

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          *            *
345 KK    *       R51  *
          *            *
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ROUTING 51 TO 71A

HYDROGRAPH ROUTING DATA

347 RM MUSKINGUM ROUTING

NSTPS	4	NUMBER OF SUBREACHES
AMSKK	.44	MUSKINGUM K
X	.20	MUSKINGUM X

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

HYDROGRAPH AT STATION R51
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
2774.	2.17	(CFS)	596.	149.	144.	144.
		(INCHES)	1.197	1.197	1.197	1.197
		(AC-FT)	296.	296.	296.	296.

CUMULATIVE AREA = 4.63 SQ MI

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HYDROGRAPH AT STATION R51
FOR PLAN 1, RATIO = .89

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
4128.	2.17	(CFS)	890.	223.	214.	214.

```
                    (INCHES)     1.788       1.788       1.788       1.788
                     (AC-FT)      441.        441.        441.        441.

                    CUMULATIVE AREA =    4.63 SQ MI


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

                     HYDROGRAPH AT STATION      R51
                       FOR PLAN 1, RATIO = 1.00

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
  4837.       2.08       (CFS)     1044.       261.        251.        251.
                       (INCHES)    2.097       2.097       2.097       2.097
                        (AC-FT)     518.        518.        518.        518.

                    CUMULATIVE AREA =    4.63 SQ MI


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

                     HYDROGRAPH AT STATION      R51
                       FOR PLAN 1, RATIO = 1.20

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
  6112.       2.08       (CFS)     1324.       331.        319.        319.
                       (INCHES)    2.660       2.660       2.660       2.660
                        (AC-FT)     657.        657.        657.        657.

                    CUMULATIVE AREA =    4.63 SQ MI


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          *            *
348 KK    *          H *
          *            *
          **************
                         RUNOFF FROM H

            SUBBASIN RUNOFF DATA

350 BA        SUBBASIN CHARACTERISTICS
                   TAREA          .68  SUBBASIN AREA

              PRECIPITATION DATA

 28 PB             STORM         2.83  BASIN TOTAL PRECIPITATION

 29 PI          INCREMENTAL PRECIPITATION PATTERN
                   .01       .01       .01       .02       .02       .02       .06       .06       .06       .17
                   .17       .17       .03       .03       .03       .02       .02       .02       .01       .01
                   .01       .01       .01       .01

 31 LU        UNIFORM LOSS RATE
                   STRTL          .65  INITIAL LOSS
                   CNSTL          .23  UNIFORM LOSS RATE
                   RTIMP          .00  PERCENT IMPERVIOUS AREA

352 UD        SCS DIMENSIONLESS UNITGRAPH
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TLAG 1.00 LAG

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UNIT HYDROGRAPH
62 END-OF-PERIOD ORDINATES

8.	23.	43.	68.	98.	138.	184.	228.	266.	293.
308.	314.	314.	308.	293.	276.	256.	233.	207.	177.
151.	132.	115.	101.	88.	79.	70.	62.	54.	46.
41.	36.	32.	28.	24.	22.	19.	16.	15.	13.
11.	10.	9.	8.	7.	6.	5.	4.	4.	3.
3.	3.	3.	2.	2.	2.	1.	1.	1.	1.
0.	0.								

TOTAL RAINFALL = 2.83, TOTAL LOSS = .95, TOTAL EXCESS = 1.88

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
542.	1.92	(CFS)	137.	34.	33.	33.
		(INCHES)	1.877	1.878	1.878	1.878
		(AC-FT)	68.	68.	68.	68.

CUMULATIVE AREA = .68 SQ MI

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

HYDROGRAPH AT STATION H
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 1.92, TOTAL LOSS = .93, TOTAL EXCESS = .99

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
295.	1.92	(CFS)	73.	18.	17.	17.
		(INCHES)	.993	.993	.993	.993
		(AC-FT)	36.	36.	36.	36.

CUMULATIVE AREA = .68 SQ MI

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HYDROGRAPH AT STATION H
FOR PLAN 1, RATIO = .89

TOTAL RAINFALL = 2.52, TOTAL LOSS = .94, TOTAL EXCESS = 1.57

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
458.	1.92	(CFS)	115.	29.	28.	28.
		(INCHES)	1.575	1.575	1.575	1.575
		(AC-FT)	57.	57.	57.	57.

CUMULATIVE AREA = .68 SQ MI

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HYDROGRAPH AT STATION H
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 2.83, TOTAL LOSS = .95, TOTAL EXCESS = 1.88

PEAK FLOW (CFS)	TIME (HR)	MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR

```
   542.      1.92       (CFS)      137.        34.        33.        33.
                      (INCHES)    1.877      1.878      1.878      1.878
                       (AC-FT)     68.        68.        68.        68.

                    CUMULATIVE AREA =     .68 SQ MI


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

                     HYDROGRAPH AT STATION        H
                       FOR PLAN 1, RATIO = 1.20

  TOTAL RAINFALL =    3.40, TOTAL LOSS =     .96, TOTAL EXCESS =    2.43

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR      72-HR     24.92-HR
   695.       1.92       (CFS)      178.        44.        43.        43.
                      (INCHES)    2.432      2.432      2.432      2.432
                       (AC-FT)     88.        88.        88.        88.

                    CUMULATIVE AREA =     .68 SQ MI


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


          **************
          *            *
353 KK    *       71A  *
          *            *
          **************
                     HYDROGRAPH COMBINATION, FLOW FROM 51 AND H; ABOVE CONFLUENCE

355 HC          HYDROGRAPH COMBINATION
                     ICOMP           2  NUMBER OF HYDROGRAPHS TO COMBINE

                                                          ***

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

                     HYDROGRAPH AT STATION      71A
                       FOR PLAN 1, RATIO =  .68

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR      72-HR     24.92-HR
  3050.       2.17       (CFS)      669.       167.       161.       161.
                      (INCHES)    1.171      1.171      1.171      1.171
                       (AC-FT)     332.       332.       332.       332.

                    CUMULATIVE AREA =    5.31 SQ MI


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

                     HYDROGRAPH AT STATION      71A
                       FOR PLAN 1, RATIO =  .89

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR      72-HR     24.92-HR
  4570.       2.08       (CFS)     1005.       251.       242.       242.
                      (INCHES)    1.761      1.761      1.761      1.761
                       (AC-FT)     499.       499.       499.       499.

                    CUMULATIVE AREA =    5.31 SQ MI
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***          ***          ***          ***          ***

                HYDROGRAPH AT STATION      71A
                  FOR PLAN 1, RATIO = 1.00

PEAK FLOW    TIME                        MAXIMUM AVERAGE FLOW
  (CFS)      (HR)                 6-HR      24-HR      72-HR     24.92-HR
  5363.      2.08       (CFS)     1181.      295.       285.        285.
                      (INCHES)    2.069     2.069      2.069       2.069
                       (AC-FT)     586.      586.       586.        586.

                     CUMULATIVE AREA =    5.31 SQ MI


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

                HYDROGRAPH AT STATION      71A
                  FOR PLAN 1, RATIO = 1.20

PEAK FLOW    TIME                        MAXIMUM AVERAGE FLOW
  (CFS)      (HR)                 6-HR      24-HR      72-HR     24.92-HR
  6786.      2.08       (CFS)     1502.      376.       362.        362.
                      (INCHES)    2.631     2.631      2.631       2.631
                       (AC-FT)     745.      745.       745.        745.

                     CUMULATIVE AREA =    5.31 SQ MI


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


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          *            *
356 KK    *        H2  *
          *            *
          **************
                  RUNOFF FROM H2

        SUBBASIN RUNOFF DATA

358 BA        SUBBASIN CHARACTERISTICS
                  TAREA          .21  SUBBASIN AREA

              PRECIPITATION DATA

 28 PB            STORM         2.83  BASIN TOTAL PRECIPITATION

 29 PI          INCREMENTAL PRECIPITATION PATTERN
                  .01       .01       .01       .02       .02       .02       .06       .06       .06       .17
                  .17       .17       .03       .03       .03       .02       .02       .02       .01       .01
                  .01       .01       .01       .01

359 LU        UNIFORM LOSS RATE
                  STRTL          .65  INITIAL LOSS
                  CNSTL          .16  UNIFORM LOSS RATE
                  RTIMP          .00  PERCENT IMPERVIOUS AREA

360 UD        SCS DIMENSIONLESS UNITGRAPH
                   TLAG          .48  LAG

                                                    ***
```

UNIT HYDROGRAPH
31 END-OF-PERIOD ORDINATES

14.	42.	85.	140.	181.	194.	190.	170.	144.	110.
82.	63.	49.	38.	29.	23.	17.	13.	10.	8.
6.	5.	4.	3.	2.	2.	1.	1.	1.	0.
0.									

TOTAL RAINFALL = 2.83, TOTAL LOSS = .86, TOTAL EXCESS = 1.97

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
306.	1.42	(CFS)	44.	11.	11.	11.
		(INCHES)	1.970	1.970	1.970	1.970
		(AC-FT)	22.	22.	22.	22.

CUMULATIVE AREA = .21 SQ MI

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

HYDROGRAPH AT STATION H2
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 1.92, TOTAL LOSS = .85, TOTAL EXCESS = 1.08

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
173.	1.42	(CFS)	24.	6.	6.	6.
		(INCHES)	1.079	1.079	1.079	1.079
		(AC-FT)	12.	12.	12.	12.

CUMULATIVE AREA = .21 SQ MI

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

HYDROGRAPH AT STATION H2
FOR PLAN 1, RATIO = .89

TOTAL RAINFALL = 2.52, TOTAL LOSS = .85, TOTAL EXCESS = 1.66

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
262.	1.42	(CFS)	38.	9.	9.	9.
		(INCHES)	1.664	1.664	1.664	1.664
		(AC-FT)	19.	19.	19.	19.

CUMULATIVE AREA = .21 SQ MI

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

HYDROGRAPH AT STATION H2
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 2.83, TOTAL LOSS = .86, TOTAL EXCESS = 1.97

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
306.	1.42	(CFS)	44.	11.	11.	11.
		(INCHES)	1.970	1.970	1.970	1.970
		(AC-FT)	22.	22.	22.	22.

CUMULATIVE AREA = .21 SQ MI

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

                    HYDROGRAPH AT STATION       H2
                      FOR PLAN 1, RATIO = 1.20

 TOTAL RAINFALL =    3.40, TOTAL LOSS =     .87, TOTAL EXCESS =    2.53

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   387.       1.33        (CFS)      57.         14.         14.         14.
                        (INCHES)    2.528       2.528       2.528       2.528
                         (AC-FT)     28.         28.         28.         28.

                       CUMULATIVE AREA =     .21 SQ MI


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


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          *            *
361 KK    *        H3  *
          *            *
          **************
                      RUNOFF FROM H3

            SUBBASIN RUNOFF DATA

363 BA        SUBBASIN CHARACTERISTICS
                    TAREA         .35  SUBBASIN AREA

              PRECIPITATION DATA

 28 PB              STORM        2.83  BASIN TOTAL PRECIPITATION

 29 PI          INCREMENTAL PRECIPITATION PATTERN
                    .01       .01       .01       .02       .02       .02       .06       .06       .06       .17
                    .17       .17       .03       .03       .03       .02       .02       .02       .01       .01
                    .01       .01       .01       .01

364 LU        UNIFORM LOSS RATE
                    STRTL         .65  INITIAL LOSS
                    CNSTL         .14  UNIFORM LOSS RATE
                    RTIMP         .00  PERCENT IMPERVIOUS AREA

365 UD        SCS DIMENSIONLESS UNITGRAPH
                     TLAG         .37  LAG

                                                  ***

                                              UNIT HYDROGRAPH
                                          24 END-OF-PERIOD ORDINATES
             42.      131.      276.      385.      411.      378.      314.      222.      155.      111.
             82.       58.       42.       30.       21.       16.       11.        8.        6.        4.
              3.        2.        1.        1.

  TOTAL RAINFALL =    2.83, TOTAL LOSS =     .83, TOTAL EXCESS =    2.00

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   623.       1.25        (CFS)      75.         19.         18.         18.
                        (INCHES)    1.996       1.996       1.996       1.996
                         (AC-FT)     37.         37.         37.         37.
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CUMULATIVE AREA = .35 SQ MI

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

HYDROGRAPH AT STATION H3
FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 1.92, TOTAL LOSS = .82, TOTAL EXCESS = 1.10

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
348.	1.25	(CFS)	42.	10.	10.	10.
		(INCHES)	1.103	1.103	1.103	1.103
		(AC-FT)	21.	21.	21.	21.

CUMULATIVE AREA = .35 SQ MI

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

HYDROGRAPH AT STATION H3
FOR PLAN 1, RATIO = .89

TOTAL RAINFALL = 2.52, TOTAL LOSS = .83, TOTAL EXCESS = 1.69

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
531.	1.25	(CFS)	64.	16.	15.	15.
		(INCHES)	1.690	1.690	1.690	1.690
		(AC-FT)	32.	32.	32.	32.

CUMULATIVE AREA = .35 SQ MI

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

HYDROGRAPH AT STATION H3
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 2.83, TOTAL LOSS = .83, TOTAL EXCESS = 2.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
623.	1.25	(CFS)	75.	19.	18.	18.
		(INCHES)	1.996	1.996	1.996	1.996
		(AC-FT)	37.	37.	37.	37.

CUMULATIVE AREA = .35 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION H3
FOR PLAN 1, RATIO = 1.20

TOTAL RAINFALL = 3.40, TOTAL LOSS = .84, TOTAL EXCESS = 2.55

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
783.	1.25	(CFS)	96.	24.	23.	23.
		(INCHES)	2.555	2.555	2.555	2.555
		(AC-FT)	48.	48.	48.	48.

CUMULATIVE AREA = .35 SQ MI

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*** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** *** ***

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          *            *
366 KK    *        I5  *
          *            *
          **************
                         BEGIN SOUTH GALLOWAY WASH
                         RUNOFF FROM I5

            SUBBASIN RUNOFF DATA

369 BA        SUBBASIN CHARACTERISTICS
                    TAREA        4.98  SUBBASIN AREA

              PRECIPITATION DATA

 28 PB              STORM        2.83  BASIN TOTAL PRECIPITATION

 29 PI          INCREMENTAL PRECIPITATION PATTERN
                    .01       .01       .01       .02       .02       .02       .06       .06       .06       .17
                    .17       .17       .03       .03       .03       .02       .02       .02       .01       .01
                    .01       .01       .01       .01

370 LU        UNIFORM LOSS RATE
                    STRTL         .65  INITIAL LOSS
                    CNSTL         .16  UNIFORM LOSS RATE
                    RTIMP         .00  PERCENT IMPERVIOUS AREA

371 UD        SCS DIMENSIONLESS UNITGRAPH
                     TLAG        1.32  LAG

                                                   ***

                                              UNIT HYDROGRAPH
                                         81 END-OF-PERIOD ORDINATES
            32.      81.     156.     248.     348.     478.     628.     801.    1001.    1200.
          1373.    1515.    1634.    1703.    1752.    1763.    1759.    1747.    1682.    1613.
          1538.    1454.    1365.    1256.    1138.    1008.     897.     796.     720.     651.
           586.     531.     482.     443.     403.     364.     332.     299.     267.     243.
           221.     199.     181.     164.     148.     133.     121.     109.      97.      89.
            81.      73.      66.      60.      55.      49.      45.      41.      37.      33.
            30.      27.      25.      22.      20.      19.      17.      16.      15.      13.
            12.      11.      10.       8.       7.       6.       5.       4.       3.       2.
             1.

  TOTAL RAINFALL =    2.83, TOTAL LOSS =     .86, TOTAL EXCESS =    1.97

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
   3244.      2.25        (CFS)    1053.        264.        254.        254.
                         (INCHES)   1.965       1.970       1.970       1.970
                          (AC-FT)    522.        523.        523.        523.

                         CUMULATIVE AREA =    4.98 SQ MI

   ***            ***            ***            ***            ***

                        HYDROGRAPH AT STATION       I5
                          FOR PLAN 1, RATIO =  .68
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TOTAL RAINFALL = 1.92, TOTAL LOSS = .85, TOTAL EXCESS = 1.08

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1799.	2.33	(CFS)	577.	144.	139.	139.
		(INCHES)	1.077	1.079	1.079	1.079
		(AC-FT)	286.	287.	287.	287.

CUMULATIVE AREA = 4.98 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION I5
FOR PLAN 1, RATIO = .89

TOTAL RAINFALL = 2.52, TOTAL LOSS = .85, TOTAL EXCESS = 1.66

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
2751.	2.33	(CFS)	890.	223.	215.	215.
		(INCHES)	1.661	1.664	1.664	1.664
		(AC-FT)	441.	442.	442.	442.

CUMULATIVE AREA = 4.98 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION I5
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 2.83, TOTAL LOSS = .86, TOTAL EXCESS = 1.97

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
3244.	2.25	(CFS)	1053.	264.	254.	254.
		(INCHES)	1.965	1.970	1.970	1.970
		(AC-FT)	522.	523.	523.	523.

CUMULATIVE AREA = 4.98 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION I5
FOR PLAN 1, RATIO = 1.20

TOTAL RAINFALL = 3.40, TOTAL LOSS = .87, TOTAL EXCESS = 2.53

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
4145.	2.25	(CFS)	1351.	338.	326.	326.
		(INCHES)	2.522	2.528	2.528	2.528
		(AC-FT)	670.	671.	671.	671.

CUMULATIVE AREA = 4.98 SQ MI

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372 KK      *       R52  *
            *            *
            **************
                    ROUTING 52 TO 71B

              HYDROGRAPH ROUTING DATA

374 RM          MUSKINGUM ROUTING
                      NSTPS          3 NUMBER OF SUBREACHES
                      AMSKK        .29 MUSKINGUM K
                          X        .20 MUSKINGUM X

                                                          ***

    ***             ***             ***             ***             ***

                      HYDROGRAPH AT STATION      R52
                        FOR PLAN 1, RATIO =  .68

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
  1770.       2.58       (CFS)      577.        144.        139.        139.
                       (INCHES)    1.076       1.079       1.079       1.079
                        (AC-FT)     286.        287.        287.        287.

                      CUMULATIVE AREA =    4.98 SQ MI

    ***             ***             ***             ***             ***

                      HYDROGRAPH AT STATION      R52
                        FOR PLAN 1, RATIO =  .89

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
  2711.       2.58       (CFS)      889.        223.        215.        215.
                       (INCHES)    1.660       1.664       1.664       1.664
                        (AC-FT)     441.        442.        442.        442.

                      CUMULATIVE AREA =    4.98 SQ MI

    ***             ***             ***             ***             ***

                      HYDROGRAPH AT STATION      R52
                        FOR PLAN 1, RATIO = 1.00

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
  3199.       2.58       (CFS)     1052.        264.        254.        254.
                       (INCHES)    1.965       1.970       1.970       1.970
                        (AC-FT)     522.        523.        523.        523.

                      CUMULATIVE AREA =    4.98 SQ MI

    ***             ***             ***             ***             ***

                      HYDROGRAPH AT STATION      R52
                        FOR PLAN 1, RATIO = 1.20

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                  6-HR       24-HR       72-HR     24.92-HR
  4086.       2.58       (CFS)     1350.        338.        326.        326.
                       (INCHES)    2.521       2.528       2.528       2.528
                        (AC-FT)     670.        671.        671.        671.
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                    CUMULATIVE AREA =    4.98 SQ MI

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          *            *
375 KK    *        I6  *
          *            *
          **************
                         RUNOFF FROM I6

             SUBBASIN RUNOFF DATA

377 BA          SUBBASIN CHARACTERISTICS
                     TAREA        1.82  SUBBASIN AREA

                PRECIPITATION DATA

 28 PB               STORM        2.83  BASIN TOTAL PRECIPITATION

 29 PI            INCREMENTAL PRECIPITATION PATTERN
                     .01       .01       .01       .02       .02       .02       .06       .06       .06       .17
                     .17       .17       .03       .03       .03       .02       .02       .02       .01       .01
                     .01       .01       .01       .01

378 LU          UNIFORM LOSS RATE
                     STRTL         .65  INITIAL LOSS
                     CNSTL         .16  UNIFORM LOSS RATE
                     RTIMP         .00  PERCENT IMPERVIOUS AREA

379 UD          SCS DIMENSIONLESS UNITGRAPH
                      TLAG        1.32  LAG

                                                  ***

                                              UNIT HYDROGRAPH
                                          81 END-OF-PERIOD ORDINATES
            12.      29.      57.      91.     127.     175.     229.     293.     366.     439.
           502.     554.     597.     622.     640.     644.     643.     639.     615.     590.
           562.     531.     499.     459.     416.     368.     328.     291.     263.     238.
           214.     194.     176.     162.     147.     133.     121.     109.      97.      89.
            81.      73.      66.      60.      54.      49.      44.      40.      36.      33.
            30.      27.      24.      22.      20.      18.      16.      15.      13.      12.
            11.      10.       9.       8.       7.       7.       6.       6.       5.       5.
             4.       4.       3.       3.       3.       2.       2.       1.       1.       1.
             0.

   TOTAL RAINFALL =    2.83, TOTAL LOSS =     .86, TOTAL EXCESS =    1.97

PEAK FLOW     TIME                          MAXIMUM AVERAGE FLOW
  (CFS)       (HR)                 6-HR       24-HR       72-HR     24.92-HR
  1186.       2.25       (CFS)     385.         96.         93.         93.
                       (INCHES)   1.965      1.970       1.970       1.970
                        (AC-FT)    191.       191.        191.        191.

                    CUMULATIVE AREA =    1.82 SQ MI

    ***            ***            ***            ***            ***

                     HYDROGRAPH AT STATION       I6
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FOR PLAN 1, RATIO = .68

TOTAL RAINFALL = 1.92, TOTAL LOSS = .85, TOTAL EXCESS = 1.08

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
657.	2.33	(CFS)	211.	53.	51.	51.
		(INCHES)	1.077	1.079	1.079	1.079
		(AC-FT)	105.	105.	105.	105.

CUMULATIVE AREA = 1.82 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION I6
FOR PLAN 1, RATIO = .89

TOTAL RAINFALL = 2.52, TOTAL LOSS = .85, TOTAL EXCESS = 1.66

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1005.	2.33	(CFS)	325.	81.	78.	78.
		(INCHES)	1.661	1.664	1.664	1.664
		(AC-FT)	161.	162.	162.	162.

CUMULATIVE AREA = 1.82 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION I6
FOR PLAN 1, RATIO = 1.00

TOTAL RAINFALL = 2.83, TOTAL LOSS = .86, TOTAL EXCESS = 1.97

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1186.	2.25	(CFS)	385.	96.	93.	93.
		(INCHES)	1.965	1.970	1.970	1.970
		(AC-FT)	191.	191.	191.	191.

CUMULATIVE AREA = 1.82 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION I6
FOR PLAN 1, RATIO = 1.20

TOTAL RAINFALL = 3.40, TOTAL LOSS = .87, TOTAL EXCESS = 2.53

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
1515.	2.25	(CFS)	494.	124.	119.	119.
		(INCHES)	2.522	2.528	2.528	2.528
		(AC-FT)	245.	245.	245.	245.

CUMULATIVE AREA = 1.82 SQ MI

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*            *
380 KK  *      71B  *
*            *
**************
                HYDROGRAPH COMBINATION, FLOW FROM I5 AND I6;
                ABOVE CONFLUENCE WITH ROWE WASH

383 HC        HYDROGRAPH COMBINATION
                ICOMP          2  NUMBER OF HYDROGRAPHS TO COMBINE

                                                          ***

   ***          ***          ***          ***          ***

                HYDROGRAPH AT STATION      71B
                  FOR PLAN 1, RATIO =  .68

PEAK FLOW    TIME                        MAXIMUM AVERAGE FLOW
  (CFS)      (HR)                6-HR      24-HR      72-HR     24.92-HR
  2388.      2.50      (CFS)     787.       197.       190.        190.
                     (INCHES)   1.076      1.079      1.079       1.079
                      (AC-FT)   390.       391.       391.        391.

                CUMULATIVE AREA =    6.80 SQ MI


   ***          ***          ***          ***          ***

                HYDROGRAPH AT STATION      71B
                  FOR PLAN 1, RATIO =  .89

PEAK FLOW    TIME                        MAXIMUM AVERAGE FLOW
  (CFS)      (HR)                6-HR      24-HR      72-HR     24.92-HR
  3661.      2.50      (CFS)    1214.       304.       293.        293.
                     (INCHES)   1.660      1.664      1.664       1.664
                      (AC-FT)   602.       604.       604.        604.

                CUMULATIVE AREA =    6.80 SQ MI


   ***          ***          ***          ***          ***

                HYDROGRAPH AT STATION      71B
                  FOR PLAN 1, RATIO = 1.00

PEAK FLOW    TIME                        MAXIMUM AVERAGE FLOW
  (CFS)      (HR)                6-HR      24-HR      72-HR     24.92-HR
  4321.      2.50      (CFS)    1437.       360.       347.        347.
                     (INCHES)   1.964      1.970      1.970       1.970
                      (AC-FT)   712.       714.       714.        714.

                CUMULATIVE AREA =    6.80 SQ MI


   ***          ***          ***          ***          ***

                HYDROGRAPH AT STATION      71B
                  FOR PLAN 1, RATIO = 1.20

PEAK FLOW    TIME                        MAXIMUM AVERAGE FLOW
  (CFS)      (HR)                6-HR      24-HR      72-HR     24.92-HR
  5520.      2.50      (CFS)    1843.       462.       445.        445.
                     (INCHES)   2.520      2.528      2.528       2.528
                      (AC-FT)   914.       917.       917.        917.
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CUMULATIVE AREA = 6.80 SQ MI

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          **************
          *            *
384 KK    *        71  *
          *            *
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BELOW CONFLUENCE OF NORTH GALLOWAY/SOUTH GALLOWAY/ROWE WASH

386 HC HYDROGRAPH COMBINATION
ICOMP 5 NUMBER OF HYDROGRAPHS TO COMBINE

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*** *** *** *** ***

HYDROGRAPH AT STATION 71
FOR PLAN 1, RATIO = .68

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
9068.	2.17	(CFS)	2362.	591.	569.	569.
		(INCHES)	1.136	1.137	1.137	1.137
		(AC-FT)	1171.	1173.	1173.	1173.

CUMULATIVE AREA = 19.34 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION 71
FOR PLAN 1, RATIO = .89

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
13697.	2.08	(CFS)	3583.	897.	864.	864.
		(INCHES)	1.723	1.725	1.725	1.725
		(AC-FT)	1777.	1779.	1779.	1779.

CUMULATIVE AREA = 19.34 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION 71
FOR PLAN 1, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
16091.	2.08	(CFS)	4222.	1057.	1018.	1018.
		(INCHES)	2.029	2.032	2.032	2.032
		(AC-FT)	2093.	2096.	2096.	2096.

CUMULATIVE AREA = 19.34 SQ MI

*** *** *** *** ***

HYDROGRAPH AT STATION 71
FOR PLAN 1, RATIO = 1.20

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.92-HR
20400.	2.08	(CFS)	5385.	1348.	1298.	1298.
		(INCHES)	2.589	2.592	2.592	2.592
		(AC-FT)	2670.	2674.	2674.	2674.

CUMULATIVE AREA = 19.34 SQ MI

PEAK FLOW AND STAGE (END-OF-PERIOD) SUMMARY FOR MULTIPLE PLAN-RATIO ECONOMIC COMPUTATIONS
FLOWS IN CUBIC FEET PER SECOND, AREA IN SQUARE MILES
TIME TO PEAK IN HOURS

					RATIOS APPLIED TO PRECIPITATION			
OPERATION	STATION	AREA	PLAN		RATIO 1	RATIO 2	RATIO 3	RATIO 4
					.68	.89	1.00	1.20
HYDROGRAPH AT	B3	1.33	1	FLOW	686.	1062.	1261.	1617.
				TIME	1.83	1.75	1.75	1.75
HYDROGRAPH AT	B2	.31	1	FLOW	442.	691.	811.	1013.
				TIME	1.08	1.08	1.08	1.08
2 COMBINED AT	14A	1.64	1	FLOW	746.	1154.	1366.	1747.
				TIME	1.75	1.75	1.75	1.75
ROUTED TO	R14A	1.64	1	FLOW	738.	1143.	1354.	1733.
				TIME	1.92	1.83	1.83	1.83
HYDROGRAPH AT	B4	.56	1	FLOW	735.	1109.	1318.	1671.
				TIME	1.17	1.08	1.08	1.08
HYDROGRAPH AT	B1	6.11	1	FLOW	4276.	6655.	7876.	10051.
				TIME	1.50	1.50	1.50	1.50
3 COMBINED AT	12A	8.31	1	FLOW	5127.	7963.	9424.	12075.
				TIME	1.50	1.50	1.50	1.42
ITED TO	R12A	8.31	1	FLOW	5100.	7964.	9447.	12097.
				TIME	1.58	1.50	1.50	1.50
HYDROGRAPH AT	B5	.49	1	FLOW	643.	970.	1153.	1462.
				TIME	1.17	1.08	1.08	1.08
HYDROGRAPH AT	B6	.82	1	FLOW	764.	1187.	1410.	1804.
				TIME	1.33	1.25	1.25	1.25
3 COMBINED AT	11A	9.62	1	FLOW	5905.	9202.	10925.	14016.
				TIME	1.50	1.42	1.42	1.42
ROUTED TO	R11A	9.62	1	FLOW	5763.	8984.	10646.	13619.
				TIME	1.58	1.58	1.58	1.58
HYDROGRAPH AT	B7	.44	1	FLOW	507.	797.	941.	1188.
				TIME	1.17	1.17	1.17	1.17
2 COMBINED AT	B	10.06	1	FLOW	5952.	9253.	10956.	14038.
				TIME	1.58	1.58	1.58	1.50
HYDROGRAPH AT	D1	.56	1	FLOW	768.	1129.	1302.	1606.
				TIME	1.17	1.17	1.17	1.17
HYDROGRAPH AT	D2	.32	1	FLOW	420.	626.	724.	897.
				TIME	1.17	1.17	1.17	1.17
2 COMBINED AT	16	.88	1	FLOW	1189.	1755.	2027.	2502.
				TIME	1.17	1.17	1.17	1.17
ROUTED TO	R16	.88	1	FLOW	1068.	1603.	1865.	2322.
				TIME	1.25	1.25	1.25	1.25
HYDROGRAPH AT	F2C	.53	1	FLOW	630.	939.	1098.	1374.

				TIME	1.25	1.17	1.17	1.17
2 COMBINED AT	17A	1.41	1	FLOW	1698.	2528.	2932.	3640.
				TIME	1.25	1.25	1.25	1.25
ROGRAPH AT	F2D	.23	1	FLOW	180.	271.	318.	402.
				TIME	1.50	1.42	1.42	1.42
2 COMBINED AT	17	1.64	1	FLOW	1835.	2746.	3193.	3978.
				TIME	1.25	1.25	1.25	1.25
ROUTED TO	R17	1.64	1	FLOW	1587.	2377.	2773.	3473.
				TIME	1.42	1.42	1.42	1.42
HYDROGRAPH AT	F2F	.17	1	FLOW	242.	360.	419.	520.
				TIME	1.17	1.08	1.08	1.08
2 COMBINED AT	19A	1.81	1	FLOW	1692.	2523.	2940.	3678.
				TIME	1.42	1.42	1.42	1.33
HYDROGRAPH AT	F2A	.29	1	FLOW	345.	514.	601.	752.
				TIME	1.25	1.17	1.17	1.17
HYDROGRAPH AT	F2B	.43	1	FLOW	511.	762.	891.	1114.
				TIME	1.25	1.17	1.17	1.17
2 COMBINED AT	18	.72	1	FLOW	856.	1275.	1492.	1866.
				TIME	1.25	1.17	1.17	1.17
ROUTED TO	R18	.72	1	FLOW	791.	1179.	1371.	1708.
				TIME	1.33	1.33	1.33	1.33
ROGRAPH AT	F2E	.23	1	FLOW	269.	397.	463.	581.
				TIME	1.25	1.25	1.17	1.17
2 COMBINED AT	19B	.95	1	FLOW	1032.	1526.	1780.	2237.
				TIME	1.33	1.33	1.25	1.25
2 COMBINED AT	19	2.76	1	FLOW	2652.	4004.	4682.	5877.
				TIME	1.33	1.33	1.33	1.33
ROUTED TO	R19	2.76	1	FLOW	2508.	3786.	4432.	5572.
				TIME	1.50	1.50	1.50	1.50
HYDROGRAPH AT	F2	.33	1	FLOW	375.	557.	647.	805.
				TIME	1.25	1.25	1.25	1.17
2 COMBINED AT	31A	3.09	1	FLOW	2728.	4100.	4792.	6016.
				TIME	1.50	1.50	1.50	1.50
HYDROGRAPH AT	F1A	.27	1	FLOW	192.	290.	341.	431.
				TIME	1.58	1.50	1.50	1.50
HYDROGRAPH AT	F1B	.56	1	FLOW	358.	537.	629.	794.
				TIME	1.67	1.67	1.67	1.67
2 COMBINED AT	32	.84	1	FLOW	543.	820.	962.	1216.
				TIME	1.58	1.58	1.58	1.58
ROUTED TO	R32	.84	1	FLOW	493.	740.	868.	1096.
				TIME	2.25	2.25	2.25	2.25
HYDROGRAPH AT	F1	.82	1	FLOW	525.	787.	921.	1168.
				TIME	1.67	1.67	1.67	1.58
2 COMBINED AT	31B	1.65	1	FLOW	817.	1227.	1439.	1823.

				TIME	2.00	2.00	2.00	2.00
2 COMBINED AT	31	4.74	1	FLOW	3285.	4942.	5794.	7313.
				TIME	1.58	1.50	1.50	1.50
ROUTED TO	R31	4.74	1	FLOW	3239.	4859.	5683.	7154.
				TIME	1.67	1.67	1.67	1.67
HYDROGRAPH AT	F3	.89	1	FLOW	352.	536.	631.	804.
				TIME	2.17	2.17	2.17	2.17
HYDROGRAPH AT	F4	.16	1	FLOW	167.	253.	296.	370.
				TIME	1.25	1.25	1.25	1.25
3 COMBINED AT	F	5.80	1	FLOW	3546.	5334.	6247.	7879.
				TIME	1.67	1.67	1.67	1.67
HYDROGRAPH AT	G2A	.61	1	FLOW	693.	1030.	1206.	1517.
				TIME	1.25	1.25	1.17	1.17
HYDROGRAPH AT	G2B	.15	1	FLOW	126.	190.	223.	283.
				TIME	1.42	1.42	1.33	1.33
2 COMBINED AT	36	.76	1	FLOW	802.	1201.	1397.	1743.
				TIME	1.25	1.25	1.25	1.25
HYDROGRAPH AT	G1	.61	1	FLOW	1029.	1494.	1714.	2099.
				TIME	1.08	1.08	1.08	1.08
ROUTED TO	R34	.61	1	FLOW	680.	1017.	1185.	1478.
				TIME	1.50	1.50	1.50	1.50
HYDROGRAPH AT	G2	1.17	1	FLOW	1054.	1598.	1873.	2356.
				TIME	1.33	1.33	1.33	1.33
2 COMBINED AT	35A	1.78	1	FLOW	1652.	2499.	2922.	3667.
				TIME	1.42	1.42	1.42	1.42
2 COMBINED AT	35	2.54	1	FLOW	2274.	3445.	4047.	5109.
				TIME	1.42	1.33	1.33	1.33
ROUTED TO	R35	2.54	1	FLOW	2047.	3096.	3628.	4572.
				TIME	1.75	1.75	1.75	1.75
HYDROGRAPH AT	G3	.85	1	FLOW	657.	1007.	1184.	1500.
				TIME	1.42	1.42	1.42	1.42
2 COMBINED AT	G	3.39	1	FLOW	2461.	3764.	4430.	5619.
				TIME	1.67	1.67	1.67	1.67
HYDROGRAPH AT	I1	4.98	1	FLOW	3751.	5632.	6593.	8303.
				TIME	1.50	1.50	1.50	1.50
HYDROGRAPH AT	I2	.62	1	FLOW	537.	803.	937.	1184.
				TIME	1.42	1.42	1.42	1.33
2 COMBINED AT	59	5.60	1	FLOW	4265.	6389.	7470.	9393.
				TIME	1.50	1.50	1.50	1.50
ROUTED TO	R59	5.60	1	FLOW	3749.	5599.	6570.	8312.
				TIME	2.08	2.08	2.00	2.00
HYDROGRAPH AT	I3	1.07	1	FLOW	960.	1457.	1708.	2150.
				TIME	1.33	1.33	1.33	1.33
2 COMBINED AT	63	6.67	1	FLOW	3982.	6010.	7053.	8919.

				TIME	2.00	2.00	2.00	2.00
HYDROGRAPH AT	H1E	.13	1	FLOW	237.	345.	397.	486.
				TIME	1.08	1.00	1.00	1.00
HYDROGRAPH AT	H1F	.12	1	FLOW	217.	305.	352.	433.
				TIME	1.08	1.08	1.00	1.00
2 COMBINED AT	53	.25	1	FLOW	453.	649.	749.	920.
				TIME	1.08	1.00	1.00	1.00
ROUTED TO	R53	.25	1	FLOW	396.	573.	658.	806.
				TIME	1.17	1.17	1.17	1.17
HYDROGRAPH AT	H1	.24	1	FLOW	437.	636.	732.	898.
				TIME	1.08	1.00	1.00	1.00
2 COMBINED AT	50A	.49	1	FLOW	790.	1158.	1334.	1639.
				TIME	1.08	1.08	1.08	1.08
HYDROGRAPH AT	H1C	.25	1	FLOW	435.	624.	714.	872.
				TIME	1.08	1.08	1.08	1.08
2 COMBINED AT	50	.74	1	FLOW	1225.	1782.	2048.	2512.
				TIME	1.08	1.08	1.08	1.08
HYDROGRAPH AT	H1D	.09	1	FLOW	160.	226.	261.	322.
				TIME	1.08	1.00	1.00	1.00
2 COMBINED AT	51B	.83	1	FLOW	1384.	2007.	2305.	2825.
				TIME	1.08	1.08	1.08	1.08
HYDROGRAPH AT	H1A	3.48	1	FLOW	3166.	4777.	5594.	7032.
				TIME	1.33	1.33	1.33	1.33
ROUTED TO	R49	3.48	1	FLOW	2791.	4157.	4860.	6139.
				TIME	1.75	1.75	1.67	1.67
HYDROGRAPH AT	H1B	.32	1	FLOW	452.	673.	784.	974.
				TIME	1.17	1.08	1.08	1.08
2 COMBINED AT	51A	3.80	1	FLOW	2865.	4266.	5004.	6316.
				TIME	1.75	1.67	1.67	1.67
2 COMBINED AT	51	4.63	1	FLOW	3033.	4531.	5307.	6687.
				TIME	1.75	1.67	1.67	1.67
ROUTED TO	R51	4.63	1	FLOW	2774.	4128.	4837.	6112.
				TIME	2.17	2.17	2.08	2.08
HYDROGRAPH AT	H	.68	1	FLOW	295.	458.	542.	695.
				TIME	1.92	1.92	1.92	1.92
2 COMBINED AT	71A	5.31	1	FLOW	3050.	4570.	5363.	6786.
				TIME	2.17	2.08	2.08	2.08
HYDROGRAPH AT	H2	.21	1	FLOW	173.	262.	306.	387.
				TIME	1.42	1.42	1.42	1.33
HYDROGRAPH AT	H3	.35	1	FLOW	348.	531.	623.	783.
				TIME	1.25	1.25	1.25	1.25
HYDROGRAPH AT	I5	4.98	1	FLOW	1799.	2751.	3244.	4145.
				TIME	2.33	2.33	2.25	2.25
ROUTED TO	R52	4.98	1	FLOW	1770.	2711.	3199.	4086.

				TIME	2.58	2.58	2.58	2.58
HYDROGRAPH AT	16	1.82	1	FLOW	657.	1005.	1186.	1515.
				TIME	2.33	2.33	2.25	2.25
COMBINED AT	718	6.80	1	FLOW	2388.	3661.	4321.	5520.
				TIME	2.50	2.50	2.50	2.50
5 COMBINED AT	71	19.34	1	FLOW	9068.	13697.	16091.	20400.
				TIME	2.17	2.08	2.08	2.08

*** NORMAL END OF HEC-1 ***