Spook Hill ADMP Update

Flood Control District of Maricopa County

Appendix B
Volume 2

Level I - Hydrology

(03/10/2000 - 05/11/2000)

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Registered Professional Engineer (Civil)
CERTIFICATE NO.
28615
RICHARD L.
HINER
Date Signed 9-20
ARIZONA U.S.A.

Spook Hill Area Drainage Master Plan Update

Flood Control District of Maricopa County

List of Appendices

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Appendix B

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Registered Professional Engineer (Civil)
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RICHARD L.
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Date Signed 9-20-00
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FILE AND OPTION CROSS REFERENCE INDEX

McDowell Road alone

Option Name	Other Names Used	Description
MD1E	1A	This configuration is not modeled in HEC-1 as yet. Trapezoidal Earthen Channel with vertical drops. No storm drain system in Oak St. Two basins
MD1C	2A	This configuration is not modeled in HEC-1 as yet. Trapezoidal concrete channel with vertical drops. No basin at Oak St. & Hawes Rd. No storm drain system in Oak St. Two basins
MD2E	1B; S24CE17.dat Option 31	Based on S24CE10 a old 100Yr 24Hr Event since updated several times. Trapezoidal earthen channel with vertical drops. No storm drain in Oak St. west of Hawes Rd. Three basins
MD2C	2B	This configuration is not modeled in HEC-1 with concrete "n" values as of yet. Trapezoidal concrete channel with vertical drops. No storm drain in Oak St. west of Hawes Rd. Three basins
MD3E	1C; SPHFUAL2.dat Option 14	Based on obsolete 100Yr 24Hr event. More current Q's from combination with Pass Mtn. modeled but not applicable here. Trapezoidal earthen channel with vertical drops. Storm drain in Oak St. and McDowell Rd. Three basins
MD3C	2C	This configuration is not modeled in HEC-1 with concrete "n" values as of yet. Trapezoidal concrete channel with vertical drops. Storm drain in Oak St. & McDowell Rd. Three basins
MD4E	1D; Option 55; Option 56; S24CE46.dat S24CE47.dat	This configuration in not modeled in HEC-1 by itself; However, it was modeled with Pass Mtn. and again with Pass Mtn. & McKellips as a combination run. Trapezoidal earthen channel with verical drops. No storm drain in Oak St. west of Hawes Rd. No basin at 88th St. and McDowell. Two basins
MD4C	2D	This configuration is not modeled in HEC-1. Trapezoidal concrete channel with vertical drops. No storm drain in Oak St. west of Hawes Rd. No basin at 88th St. and McDowell. Two basins

FILE AND OPTION CROSS REFERENCE INDEX CONTINUED

McDowell Road alone

Option Name	Other Names Used	Description
MD5E	1E	This configuration is not modeled in HEC-1. Trapezoidal earthen channel with vertical drops. Storm drain in Oak St. & Hawes Rd. No basin at 88th St. and McDowell. Two basins.
MD5C	2E	This configuration is not modeled in HEC-1. Trapezoidal concrete channel with vertical drops. Storm drain in Oak St. & Hawes Rd. No basin at 88th St. and McDowell. Two basins.
MD6E	1F	This configuration is not modeled in HEC-1. Trapezoidal earthen channel with vertical drops. Southwest channel from Oak St. & Hawes Rd. to McDowell west of Sossaman. Two basins.
MD6C	2F	This configuration is not modeled in HEC-1. Trapezoidal concrete channel with vertical drops. Southwest channel from Oak St. & Hawes Rd. to McDowell west of Sossaman. Two basins.

FILE AND OPTION CROSS REFERENCE INDEX CONTINUED

McDowell Road with Pass Mountain

Option Name	Other Names Used	Description
MD2E PM4	1B; S24CE43.dat Option 52	Based on option 39 an outdated 100yr 24hr event since updated. Trapezoidal earthen channel with vertical drops. No storm drain in Oak St. west of Hawes Rd. three basins.
MD2C PM4	2B	This configuration is not modeled in HEC-1 with "n" values for concrete. Trapezoidal concrete channel with vertical drops. No storm drain in Oak St. west of Hawes Rd. Three basins
MD3E PM4	1C; S24CE45.dat Option 54	Based on option 39 an outdated 100yr 24hr event since updated. Trapezoidal earthen channel with vertical drops. Storm drain in Oak St. & McDowell Rd. Three basins.
MD3C PM4	2C	This configuration is not modeled in HEC-1 with concrete "n" values as of yet. Trapezoidal concrete channel with vertical drops. storm drain in Oak St. & McDowell Rd. Three basins.
MD4E PM4	1D; S24CE47.dat Option 56	Based on option 39 an outdated 100yr 24hr event since updated. Trapezoidal earthen channel with vertical drops. No storm drain in Oak St. west of Hawes Rd. No basin at 88th St. and McDowell. Two basins
MD4C PM4	2C	This configuration is not modeled in HEC-1 with concrete "n" values as of yet. Trapezoidal concrete channel with vertical drops. No Storm drain in Oak St. west of Hawes Rd. No basin at 88th & McDowell. Two basins.

FILE AND OPTION CROSS REFERENCE INDEX CONTINUED

McKellips Road alone

Option Name	Other Names Used	Description
MK1E	1A; S24CE24.dat Option 38	Based on option 24 an outdated 100yr 24hr event since updated. Trapezoidal earthen channel with vertical drops. Basin at the NE corner of Ellsworth Rd. & McKellips Rd. One basin.
MK1C	2A	This configuration is not modeled in HEC-1 with "n" values for concrete. Trapezoidal concrete channel with vertical drops. Basin at NE corner of Ellsworth & McKellips Rd. One basin.
MK2E	1B; S24CE15.dat Option 29	Based on option 24 an outdated 100yr 24hr event since updated. Trapezoidal earthen channel with vertical drops. Basins at Hawes & Ellsworth Rd. Two basins.
MK2C	2B	This configuration is not modeled in HEC-1 with concrete "n" values as of yet. Trapezoidal concrete channel with vertical drops. Basins at Hawes & Ellsworth Rd. Two basins.
MK3E	1C; S24CE23.dat Option 37	Based on option 24 an outdated 100yr 24hr event since updated. Trapezoidal earthen channel with vertical drops. Basin at Hawes Rd. One basin.
MK3C	2C	This configuration is not modeled in HEC-1 as of yet. Trapezoidal concrete channel with vertical drops. Basin at Hawes Rd. One basin.

FILE AND OPTION CROSS REFERENCE INDEX CONTINUED

McKellips Road with Pass Mountain

Option Name	Other Names Used	Description
MK2E PM4	1B; S24CE44.dat Option 53	Based on option 39 an outdated 100yr 24hr event since updated. Trapezoidal earthen channel with vertical drops. Basins at Hawes & Ellsworth Rd. Two basins.
MK2E PM4	2B	This configuration is not modeled in HEC-1 with "n" values for concrete. Trapezoidal concrete channel with vertical drops. Basins at Hawes & Ellsworth Rd. Two basins.
MK3E PM4	1B; S24CE46.dat Option 55	Based on option 39 an outdated 100yr 24hr event since updated. Trapezoidal earthen channel with vertical drops. Basins at Hawes & Ellsworth Rd. No channel across state land. Two basins.
MK3E PM4	2B	This configuration is not modeled in HEC-1 with concrete "n" values as of yet. Trapezoidal concrete channel with vertical drops. Basins at Hawes & Ellsworth Rd. No channel across state land. Two basins.

FILE AND OPTION CROSS REFERENCE INDEX CONTINUED

Culver Street alone

Option Name	Other Names Used	Description
C1E	1A; S24CE16.dat Option 30	Based on option 24 an outdated 100yr 24hr event since updated. Trapezoidal earthen channel with vertical drops. Basin at Hawes Rd. One basin.
C1C	2A	This configuration is not modeled in HEC-1 with "n" values for concrete. Trapezoidal concrete channel with vertical drops. Basin at Hawes Rd. One basin.
C1P	1B	This configuration is not modeled in HEC-1 with "n" values for pipe. Concrete Pipe along entire alignment. Basin at Hawes road. One basin.

FILE AND OPTION CROSS REFERENCE INDEX CONTINUED

Pass Mountain Diversion alone

Option Name	Other Names Used	Description
PM1	PM1; S24CE11.dat Option 25	Based on option 24 an outdated 100yr 24hr event. Earthen channel extending NW of current Pass Mtn. diversion. Additional levee placed upstream in sub-basin 350 to direct flow towards Pass Mtn. diversion.
PM2	PM2; S24CE20.dat Option 34	Based on option 24 an outdated 100yr 24hr event, and PM1 noted above. The removal of the levee placed upstream in sub-basin 350 is the only difference.
PM3	PM3; S24CE21.dat Option 35	Based on option 24 an outdated 100yr 24hr event, and PM2 noted above. Additional earthen channel added extending NW upstream into what was sub-basin 355.
PM4	PM4; S24CE22.dat Option 36; Pass Mountain full diversion.	Based on option 24 an outdated 100yr 24hr event, and PM3 noted above. Additional earthen channel added extending NW upstream into what was sub-basin 370. More current Q's are available in combination model runs mentioned earlier: options 49 - 56 being most current based on option 39 a recently outdated 100yr 24hr storm event model.

INDEX OF HEC-1 OPTIONS

1. Base 24-hr, 100-yr existing condition storm events:

Index Numbers:	3, 4, 5, 6, 7 are obsolete and modeled prior to county comments. 15 is an update of previous runs to reflect county comments dated 3-30-00. 24 includes all previous runs & updates with additional sub-basin re-delineation. 39 includes all previous model runs. The updates to this model are re-alignment of sub-basins 385 (reduced) & 415 (enlarged), and utilization of split flow analysis results obtained for sub-basins 350 & 385. Options 58 through 60 are variations of 57 which have all of the d-theta values for all sub-basins changed to "dry", "normal", or "wet" respectively.
Index Number:	57 is the current 100-yr 24-hr event model updated using: 1)No. of hydrograph ordinates increased to 2000; 2) SE, SV and SQ cards for three FRS's updated; 3) Sediment volumes subtracted from storage volumes; 4) Old elevation datum adjusted to NAVD 1988

2. Base 6-hr, 100-yr existing condition storm events:

Index Numbers:	1, 2 are obsolete and modeled prior to county comments. 16 is an update of previous runs to reflect county comments dated 3-30-00. 27 was an update based on sub-basin redelineation but is no longer current.
Index Number:	42 is the current 6-hr 100-yr existing condition model and includes all previous runs & updates with additional sub-basin re-delineation. 385 (Reduced) & 415 (Enlarged).

3. McDowell Road Options:

Index Numbers:	13, 14 are based on 4 an outdated 24-hr, 100-Yr existing condition model since updated several times. 31 utilizes 24, which is no longer the current 24-hr 100-yr existing condition model along with additional collector channels in that area.
Index Number:	40 and 41 are the latest Mcdowell options utilizing 40, the current 100yr 24hr storm, and RGRCP along certain routings.

INDEX OF HEC-1 OPTIONS

4. McKellips Road Option:

Index Number:	29 is not the current model for McKellips Rd and utilizes 24 which is not the current 24hr 100yr existing condition model.
Index Number:	37 and 38 are the current models for Mckellips Rd. and utilize 24 which is not the current 100-yr 24-hr model.

5. Culver Street Option:

Index Number:	30 is the current model for Culver St. and utilizes 24, which is the current 24-hr 100-yr existing condition model.

6. Pass Mountain Diversion Options:

Index Numbers:	18, 19 are based on 4 an outdated 24-hr, 100- yr existing condition model since updated. 20, 21, 22, 23 are based on 15 an outdated 24-hr 100-yr existing condition model since updated. 25, 34, 35, 36 are based on 24 the most current 24-hr 100-yr existing condition model.
Index Number:	28 is referred to as the current Pass Mountain Option utilizing 24 and 25 with additional levee and further division of sub-basins.

7. Eliminate Spook Hill FRS Options:

Index Numbers:	8, 9, 10, 11, 12 are obsolete and based on 4 an outdated 24-hr 100-yr existing condition model.
Index Number:	17 is the current Eliminate Spook Hill FRS Option utilizing 15 which is an outdated 24-hr 100-yr run that only reflects County comments dated 3-20-00. 17 has not been updated with the current 24-hr 100-yr run.

8. Combinations of various Options listed above:

Index Numbers:	48 through 56 utilize 39 the current 100-yr 24-hr model and are various combinations of Pass Mountain, Mcdowell Rd., and Mckellips Rd. options Options 26, 32, and 33 utilize 24 for their 100yr 24hr storm. Option 24 is no longer the current 100yr 24hr storm.

9. 24-hour, 10-year existing condition storm event

Index Number:	43 utilizes current sub-basin alignment

INDEX OF HEC-1 OPTIONS

10. 6-hour, 10-year existing condition storm event
    Index Number: 44 utilizes current sub-basin alignment

11. 24-hour, 100-year future conditions storm event.
    Index Number: 45 utilizes known future land use and development to reflect built out conditions.

12. 6-hour, 100-year future conditions storm event.
    Index Number: 46 utilizes known future land use and development to reflect built out conditions.

13. 24-hour, 100-year future conditions storm event.
    Index Number: 47 utilizes dummy detention basins within all sub-basins affected by future development.

SPOOK HILL ADMP FILE INDEX

File Directory Location: W:\1999Projects\99989-Spook Hill ADMP Update\Hydrology

	Date	File Name	Description
15.	4/06/00	S24CE0.DAT	HEC-1 Existing Conditions 100-Year, 24-Hour Storm March 20, 2000 County comments incorporated
16.	4/11/00	S6CE0.DAT	HEC-1 Existing Conditions 100-Year, 6-Hour Storm March 20, 2000 County comments incorporate
17.	4/19/00	S24CE1.DAT	HEC-1 Existing Conditions 100-Year, 24-Hour Storm. Maintain Apache & Signal Butte FRS & Eliminate Spook Hill FRS. Offline Basin added in Sub-Basin 380. Spook Hill flood way @ 2900 cfs.
18.	4/24/00	S24CE2.DAT	HEC-1 Existing Condition 100-Year, 24-Hour Storm. Pass Mountain Diversion new boundaries for Sub-Basins 350 & 355.
19.	4/24/00	S24CE3.DAT	HEC-1 Existing condition 100-Year, 24-Hour Storm. Pass Mountain Diversion with new boundaries for Sub-Basins 350 & 355 with offline basin added in Sub-Basin 240.
20.	5/01/00	S24CE4.DAT	HEC-1 Existing condition 100-Year, 24-Hour Storm. Pass Mountain Diversion with new boundaries for Sub-Basins 350 & 355. Levee extended North-West creating new boundary for Sub-Basins 295, 300, and 305. Offline basins added to Sub-Basins 300 & 305.
21.	5/02/00	S24CE5.DAT	HEC-1 Existing condition 100-Year, 24-Hour Storm. Pass Mountain Diversion Levee extended North-West creating Sub-Basin 295 from 300. Offline basins added to Sub-Basins 220 & 240.
22.	5/02/00	S24CE6.DAT	HEC-1 Existing condition 100-Year, 24-Hour Storm. Pass Mountain Diversion with new boundaries for Sub-Basins 350 & 355. Levee extended North-West creating Sub-Basin 295 from 300. Offline basins added to Sub-Basins 240 & 220.
23.	5/08/00	S24CE7.DAT	HEC-1 Existing condition 100-Year, 24-Hour Storm. Pass Mountain Diversion with new boundaries for Sub-Basins 350 & 355. Levee extended North-West creating Sub-Basin 295 from 300. Offline basins added to Sub-Basins 300, 305, and 380.

HEC-1 alternatives within this book utilize updated 100-Year, 24-Hour Storm. The base model was updated to reflect County comments dated March 20, 2000.

New File Structure: S24CE0.DAT

S	= Project Name Spook Hill
24	= Either 24 or 6. This indicates Storm duration evaluated 6-hr or 24-hr.
C	= Century indicating 100-year storm event used in evaluation of model.
E	= Existing condition model.
0	= This is the number of the alternative being analyzed. This number can be any two digit number, with 0, 10, 20, etc. generally reserved for updates to the base 24-hr 100-Year storm event.

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DATE: March 20, 2000

MEMO TO: Afshin Ahouraiyan

FROM: J. M. Rumann

SUBJECT: Spook Hill ADMP Preliminary Hydrology Review

The purpose of this memo is to provide review comments on the preliminary hydrology developed by Wood Patel for the Spook Hill ADMP. The following comments are based upon a HEC-1 model dated 1/4/00.

1. The model uses the HEC-1 default time-area relationship for the Clark unit hydrograph method. The model should be changed to use one of the two relationships developed in the Drainage Design Manual. 50%

2. The following watersheds should be subdivided: 20, 320, 360, 380 approximately in half.

3. The routing lengths from subbasin 350 to 360 (RR350), and 390 to 400 (RR390) appear to be too long.

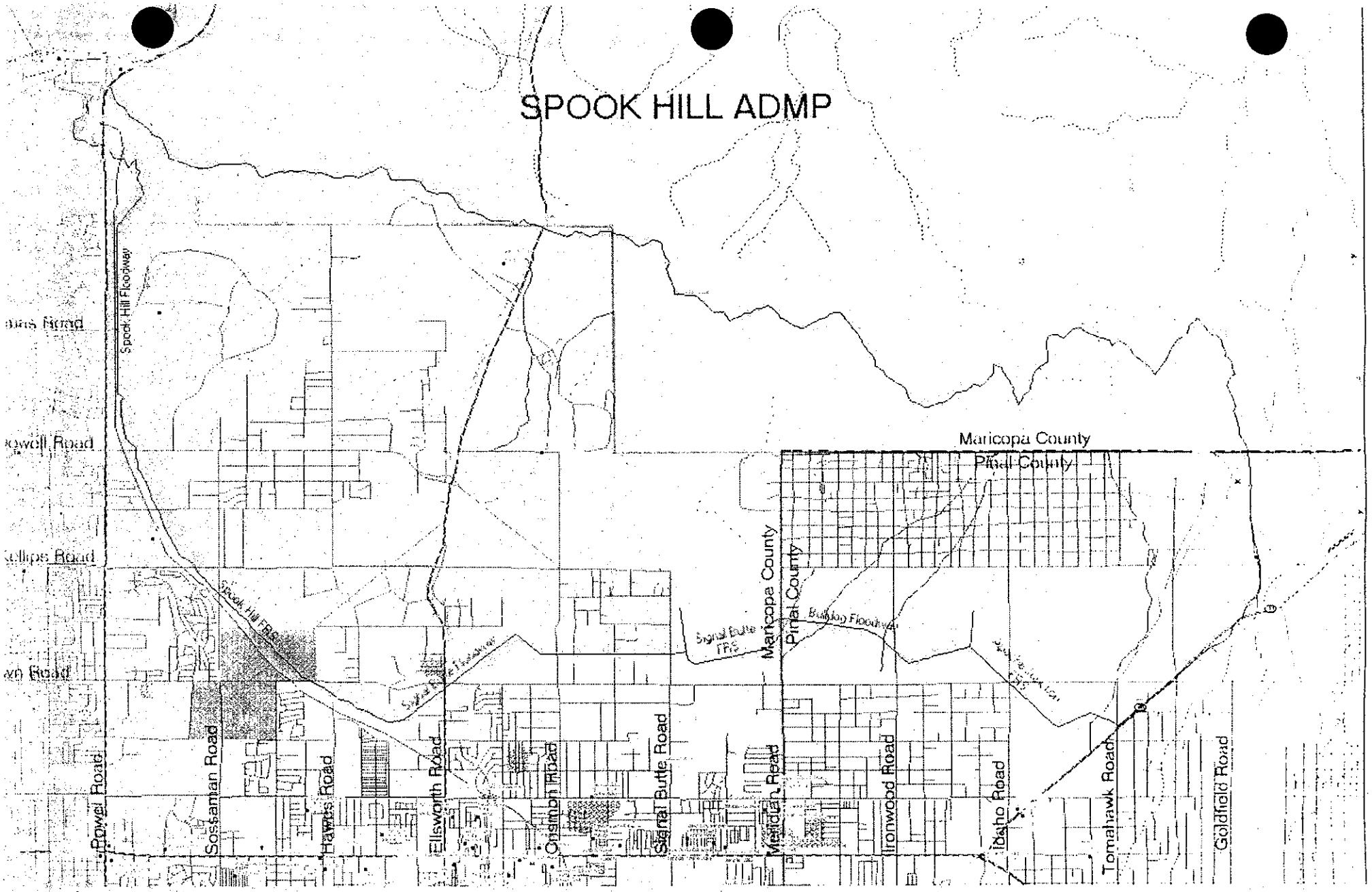
4. The comment card or the divert volume is in error for the Gray Fox subdivision (KK D420).

5. A number of comment cards in the Las Sendas portion of the model need to be revised to reflect the correct subbasin number (e.g. subbasin 60 should be 440).

6. The subbasin map and HEC-1 schematic need to be revised to reflect watershed boundaries and model operations (e.g. D480 and C140 do not appear to be modelled properly).

7. There are a number of basins that are modeled differently than those provided to the City of Mesa for the Las Sendas Mountain development. These drainage features should be the same in both models (e.g. KK DIV6 weir lengths and discharge ratings are different than Las Sendas).

In general the model is representative of actual conditions and produces expected results. If you have any questions please feel free to call me.



HEC-1 Existing Conditions 100-Year, 24hr Storm

```
1****************************************                    ************************************
*                                      *                    *                                  *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                    *   U.S. ARMY CORPS OF ENGINEERS   *
*              JUN  1998               *                    *   HYDROLOGIC ENGINEERING CENTER  *
*            VERSION 4.1               *                    *        609 SECOND STREET         *
*                                      *                    *     DAVIS, CALIFORNIA 95616      *
*  RUN DATE   25APR00  TIME  08:28:06  *                    *         (916) 756-1104           *
*                                      *                    *                                  *
****************************************                    ************************************

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

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

1                                          HEC-1 INPUT                                                    PAGE  1

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

   1           ID   EXISTING LAND USE CALCULATIONS WERE BASED ON 1 YR. FROM 11/5/99
   2           ID   FOR LAS SENDAS       AND LANDISCOR JAN.1999 AERIAL PHOTOGPRAPHS
   3           ID
   4           ID   ALL DAMS WERE ANALYZED WITH NO STORAGE BELOW PRINCIPLE SPILLWAY ELEVATIONS
   5           ID
   6           ID   A CONSERVATIVE ESTIMATE WAS USED FOR THE LOCATION OF THE CENTROID FOR
   7           ID   PRECIPITATION VALUES
   8           ID
   9           ID   ALL CHANNEL ROUTING INFORMATION WAS OBTAINED FROM MCFCD SPOOK HILL   SIGNAL
  10           ID   BUTTE        AND BULLDOG FLOODWAY PLANS
  11           ID
  12           ID   ANALYSIS PREPARED BY WOOD/PATEL - JCD; 11/05/99; FILE:  SPHEX1.DAT
  13           ID
  14           ID   MODEL UPDATE WITH LAS SENDAS WEST BASINS & ALL RETENTION BASINS
  15           ID   DRAINING BACK INTO THE SYSTEM WITHIN 36 HOURS
  16           ID   BY: JCD; 1/4/2000            FILE: SPHEX1RV.DAT
  17           ID
  18           ID   CURRENT MODEL UPDATED WITH ALL PREVIOUS MODEL RUNS
  19           ID   NOTED ABOVE, AND COUNTY COMMENTS DATED MARCH 20, 2000
  20           ID   BY: MW; 04/06/2000       FILE:  S24CE0.DAT
  21           ID
  22           ID   DDM MCUHP1 SPOOK HILL AMDP - EXISTING CONDITIONS MODEL - 100YR, 24HR STORM
               *DIAGRAM
  23           IT       2                    1500
  24           IO       3
  25           IN      15
  26           JD    3.81    0.01
  27           PC    .000    .002    .005    .008    .011    .014    .017    .020    .023    .026
  28           PC    .029    .032    .035    .038    .041    .044    .048    .052    .056    .060
  29           PC    .064    .068    .072    .076    .080    .085    .090    .095    .100    .105
  30           PC    .110    .115    .120    .126    .133    .140    .147    .155    .163    .172
  31           PC    .181    .191    .203    .218    .236    .257    .283    .387    .663    .707
  32           PC    .735    .758    .776    .791    .804    .815    .825    .834    .842    .849
  33           PC    .856    .863    .869    .875    .881    .887    .893    .898    .903    .908
  34           PC    .913    .918    .922    .926    .930    .934    .938    .942    .946    .950
  35           PC    .953    .956    .959    .962    .965    .968    .971    .974    .977    .980
  36           PC    .983    .986    .989    .992    .995    .998   1.000
  37           JD    3.58   10.00
  38           JD    3.43   30.00
  39           JD    3.28   60.00
  40           JD    3.22   90.00
  41           JD    3.18  120.00
  42           JD    3.14  150.00
  43           JD    3.05  300.00
  44           JD    2.97  500.00
               * DDM   ***** Updated *****

  45           KK      10
  46           KM   SUB-BASIN 10
  47           KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
  48           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
  49           KM     L = 2.00  Kb = .044  Adj. Slope =  165.0
  50           BA    .702
  51           LG    .350    .320   7.600    .090  15.000
  52           UC    .421    .302
1                                          HEC-1 INPUT                                                    PAGE  2

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

  53           UA       0       3       5       8      12      20      43      75      90      96
  54           UA     100
               * DDM   ***** Preserved *****

  55           KK     R10
  56           KM   ROUTING OF FLOW FROM SUB-BASIN 10 TO SUB-BASIN 20
  57           RS      10    FLOW      -1
  58           RC    .045    .045    .045   13200    .017
  59           RX       0       1       2      14      34      46      47      48
  60           RY       4       4       4       0       0       4       4       4
               * DDM   ***** Updated *****

  61           KK      20
  62           KM   SUB-BASIN 20
  63           KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
  64           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .993
```

```
 65          KM     L = 2.50  Kb = .041  Adj. Slope =   88.0
 66          BA   1.120
 67          LG    .350    .390   5.800    .190   1.000
 68          UC    .658    .454
 69          UA       0       3       5       8      12      20      43      75      90      96
 70          UA     100
             * DDM   ***** Preserved *****

 71          KK     C20
 72          KM   HYDROGRAPH COMBINATION OF SUB-BASINS 10 AND 20
 73          HC       2
             * DDM   ***** Updated *****

 74          KK      40
 75          KM   SUB-BASIN 40
 76          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 77          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .987
 78          KM     L = 3.08  Kb = .036  Adj. Slope =  189.0
 79          BA   2.233
 80          LG    .340    .340   4.900    .280   5.000
 81          UC    .496    .264
 82          UA       0       3       5       8      12      20      43      75      90      96
 83          UA     100
             * DDM   ***** Updated *****

 84          KK      60
 85          KM   SUB-BASIN 60
 86          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 87          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .990
 88          KM     L = 4.19  Kb = .038  Adj. Slope =  209.6
 89          BA   1.746
 90          LG    .330    .350   5.800    .190   9.000
 91          UC    .596    .477
 92          UA       0       3       5       8      12      20      43      75      90      96
 93          UA     100
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE  3

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

 94          KK     60C
 95          KM   HYDROGRAPH COMBINATION FOR APACHE JUNCTION FRS
             *      1       2
 96          HC       3
             * DDM   ***** Preserved *****

 97          KK    SR60
 98          KM   APACHE JUNCTION FRS AS-BUILT PLANS 12/19/88
 99          KM   OUTLET PIPE=30"RCP; L=136.6'; INLET INV.=1783.5; OUTLET INV.=1783
100          KM   EMERGENCY SPILLWAY ELEV.=1799.77'; PRINCIPLE SPILLWAY ELEV.=1793.5'
101          KM   STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 100 ACRE-FEET
102          RS       1    STOR       0
103          SV       0       1     100     200     300     400
104          SQ       0      71      81      87    91.5      94
105          SE    83.5    93.5      96    97.7      99   99.77
             * DDM   ***** Preserved *****
                                                                                  *
106          KK     R60
107          KM        ROUTE FLOW THROUGH BULLDOG FLOODWAY FROM APACHE JUNCTION FRS
108          RS       2    FLOW      -1
109          RC    .016    .016    .016    2850    .012
110          RX       0       1       2     2.1     5.6     5.7       6       7
111          RY     3.5     3.5     3.5       0       0     3.5     3.5     3.5
             * DDM   ***** Preserved *****

112          KK    RR60
113          KM   ROUTE FLOW FROM BULLDOG FLOODWAY TO SUB-BASIN 80                *
114          RS       3    FLOW      -1
115          RC    .016    .016    .016    3500    .005
116          RX       0       1       2     2.1     7.1     7.2       8       9
117          RY     3.5     3.5     3.5       0       0     3.5     3.5     3.5
             * DDM   ***** Updated *****

118          KK      80
119          KM   SUB-BASIN 80
120          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
121          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
122          KM     L = 2.69  Kb = .039  Adj. Slope =  229.8
123          BA   1.475
124          LG    .330    .330   5.600    .210   4.000
125          UC    .433    .259
126          UA       0       3       5       8      12      20      43      75      90      96
127          UA     100
             * DDM   ***** Preserved *****

128          KK     80C
129          KM   HYDROGRAPH COMBINATION FOR FLOW FROM APACHE JUNCTION FRS & SUB-BASIN 80
130          HC       2   1.475
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE  4

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

131          KK     R80
132          KM   ROUTE FLOW FROM SUB-BASIN 80 TO SUB-BASIN 100  —* Bulldog As-Builts
133          RS       1    FLOW      -1
134          RC    .025    .016    .025    1200    .003
135          RX       0       2       6     6.1    41.1    41.2    56.2    58.2
136          RY     5.5     4.5     4.5       0       0     4.5     4.5     5.5
             * DDM   ***** Updated *****

137          KK     100
138          KM   SUB-BASIN 100
139          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
140          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
141          KM     L = 1.94  Kb = .046  Adj. Slope =  108.0
142          BA    .484
143          LG    .320    .290   5.100    .260   3.000
144          UC    .533    .473
145          UA       0       5      16      30      65      77      84      90      94      97
146          UA     100
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            * DDM   ***** Preserved *****

 147        KK    100C
 148        KM   HYDROGRAPH COMBINATION FOR FLOW FROM SUB-BASIN 80 & 100
 149        HC       2
            * DDM   ***** Preserved *****

 150        KK    R100
 151        KM   ROUTE FLOW FROM SUB-BASIN 100 TO SUB-BASIN 120
 152        RS       1    FLOW      -1
 153        RC    .016    .016    .016     940    .005
 154        RX       0       1       2     2.1    52.1    52.2      53      54
 155        RY     4.5     4.5     4.5       0       0     4.5     4.5     4.5
            * DDM   ***** Updated *****

 156        KK     120
 157        KM   SUB-BASIN 120
 158        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 159        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .987
 160        KM     L = 3.07  Kb = .037  Adj. Slope =  239.0
 161        BA   2.202
 162        LG    .330    .280   6.800    .130  11.000
 163        UC    .429    .226
 164        UA       0       3       5       8      12      20      43      75      90      96
 165        UA     100
            * DDM   ***** Preserved *****

 166        KK    120C
 167        KM   HYDROGRAPH COMBINATION FOR FLOW FROM SUB-BASIN 100 & 120
 168        HC       2
            * DDM   ***** Preserved *****
1                                   HEC-1 INPUT                                          PAGE  5

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

 169        KK    R120
 170        KM   ROUTE FLOW FROM SUB-BASIN 120 TO SIGNAL BUTTE FRS
 171        RS       1    FLOW      -1
 172        RC    .025    .016    .025    2100    .005
 173        RX       0       6      10    10.1    60.1    60.2    74.2    80.2
 174        RY       8       5       5       0       0       5       5       8
            * DDM   ***** Updated *****

 175        KK     140
 176        KM   SUB-BASIN 140
 177        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 178        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
 179        KM     L = 1.61  Kb = .044  Adj. Slope =  149.0
 180        BA    .598
 181        LG    .310    .280   4.200    .440   5.000
 182        UC    .421    .278
 183        UA       0       5      16      30      65      77      84      90      94      97
 184        UA     100
            * DDM   ***** Updated *****

 185        KK     150
 186        KM   SUB-BASIN 150
 187        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 188        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
 189        KM     L = 1.50  Kb = .047  Adj. Slope =  315.0
 190        BA    .408
 191        LG    .350    .360   5.100    .260   7.000
 192        UC   1.579   1.417
 193        UA       0       3       5       8      12      20      43      75      90      96
 194        UA     100
            * DDM   ***** Preserved *****

 195        KK    R150
 196        KM   ROUTING OF FLOW FROM SUB-BASIN 150 THROUGH 160
 197        RS       14   FLOW      -1
 198        RC    .045    .045    .045   10095    .019
 199        RX       0       1       2      14      34      46      47      48
 200        RY       4       4       4       0       0       4       4       4
            * DDM   ***** Updated *****

 201        KK     160
 202        KM   SUB-BASIN 160
 203        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 204        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
 205        KM     L = 2.10  Kb = .047  Adj. Slope =  129.0
 206        BA    .369
 207        LG    .340    .330   4.150    .440   1.000
 208        UC    .587    .655
 209        UA       0       3       5       8      12      20      43      75      90      96
 210        UA     100
            * DDM   ***** Updated *****
1                                   HEC-1 INPUT                                          PAGE  6

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

 211        KK     180
 212        KM   SUB-BASIN 180
 213        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 214        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
 215        KM     L = 2.42  Kb = .041  Adj. Slope =  140.0
 216        BA   1.000
 217        LG    .350    .350   4.150    .430    .000
 218        UC    .571    .403
 219        UA       0       3       5       8      12      20      43      75      90      96
 220        UA     100
            * DDM   ***** Preserved *****

 221        KK    180C
 222        KM   HYDROGRAPH COMBINATION FOR SIGNAL BUTTE FRS
 223        HC       5
            * DDM   ***** Updated *****

 224        KK     240
 225        KM   SUB-BASIN 240
 226        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 227        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
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228          KM     L = 3.50  Kb = .041  Adj. Slope =  298.6
229          BA   1.036
230          LG    .350    .350   4.600    .330   2.000
231          UC    .500    .458
232          UA       0       3       5       8      12      20      43      75      90      96
233          UA     100
             * DDM   ***** Preserved *****

234          KK    R240
235          KM   ROUTE FLOW FROM SUB-BASIN 240 TO SUB-BASIN 220 ** check as-built plans
236          KM   PASS MOUNTAIN DIVERSION
237          RS       2    FLOW      -1
238          RC    .035    .025    .035    2100    .005
239          RX       0      15      30      39      69      81      96     111
240          RY     3.6     3.3       3       0       0       3       3       4
             * DDM   ***** Updated *****

241          KK     210
242          KM   SUB-BASIN 210
243          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
244          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
245          KM     L = 1.84  Kb = .045  Adj. Slope =  315.0
246          BA    .583
247          LG    .350    .350   7.000    .120   5.000
248          UC    .321    .232
249          UA       0       3       5       8      12      20      43      75      90      96
250          UA     100
             * DDM   ***** Preserved *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

251          KK    R210
252          KM   ROUTING OF FLOW FROM SUB-BASIN 210 TO SUB-BASIN 220
253          RS       3    FLOW      -1
254          RC    .045    .045    .045    5484    .024
255          RX       0       1       2      14      29      41      42      43
256          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

257          KK     220
258          KM   SUB-BASIN 220
259          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
260          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
261          KM     L = 1.92  Kb = .044  Adj. Slope =  315.0
262          BA    .688
263          LG    .350    .330   7.300    .110   1.000
264          UC    .321    .218
265          UA       0       3       5       8      12      20      43      75      90      96
266          UA     100
             * DDM   ***** Preserved *****

267          KK    220C
268          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 240 & 220
269          HC       3
             * DDM   ***** Preserved *****

270          KK    R220
271          KM   ROUTE FLOW FROM SUB-BASIN 220 TO SUB-BASIN 200 **
272          KM   PASS MOUNTAIN DIVERSION
273          RS       2    FLOW      -1
274          RC    .035    .025    .035    1900    .005
275          RX       0      50     100     109     139     148     178     184
276          RY       5       4       3       0       0       3       3       5
             * DDM   ***** Updated *****

277          KK     190
278          KM   SUB-BASIN 190
279          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
280          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
281          KM     L = 1.91  Kb = .042  Adj. Slope =  315.0
282          BA    .918
283          LG    .350    .390   5.800    .190   8.000
284          UC    .321    .185
285          UA       0       3       5       8      12      20      43      75      90      96
286          UA     100
             * DDM   ***** Preserved *****

287          KK    R190
288          KM   ROUTING OF FLOW FROM SUB-BASIN 190 TO SUB-BASIN 200
289          RS       4    FLOW      -1
290          RC    .045    .045    .045    6948    .023
291          RX       0       1       2      17      37      52      53      54
292          RY       5       5       5       0       0       5       5       5
             * DDM   ***** Updated *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

293          KK     200
294          KM   SUB-BASIN 200
295          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
296          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
297          KM     L = 1.92  Kb = .042  Adj. Slope =  315.0
298          BA    .918
299          LG    .350    .390   5.800    .190   7.000
300          UC    .321    .185
301          UA       0       3       5       8      12      20      43      75      90      96
302          UA     100
             * DDM   ***** Preserved *****

303          KK    200C
304          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 220 & 200
305          HC       3
             * DDM   ***** Preserved *****

306          KK    R200
307          KM   ROUTE FLOW FROM SUB-BASIN 200 TO SIGNAL BUTTE FRS **
308          RS       1    FLOW      -1
309          RC    .035    .025    .035    1300    .005
310          RX       0       1       2      17     117     132     133     134
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311          RY       5       5       5       0       0       5       5       5
             * DDM   ***** Preserved ***** 

312          KK    C180
313          KM   HYDROGRAPH COMBINATION FOR SIGNAL BUTTE FRS
             *      1       2
314          HC       2
             * DDM   ***** Preserved *****

315          KK   SR180
316          KM   SIGNAL BUTTE FRS DATED 1/28/85
317          KM   OUTLET PIPE=36"RCP; L= 147';  INLET INV.=1690; OUTLET INV.=1687
318          KM   EMERGENCY SPILLWAY ELEV.=1712.4; PRINCIPLE SPILLWAY ELEV.=1701
319          KM   STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 250 ACRE-FEET
320          RS       1    STOR       0
321          SV       0       1     250     500     750    1060
322          SQ       0   106.5   125.5   137.5     146     160
323          SE      90     101   104.5     107     109   112.4
             * DDM   ***** Preserved *****

324          KK    R180
325          KM   ROUTE FLOW FROM SIGNAL BUTTE FRS TO SUB-BASIN 260
326          RS       1    FLOW      -1
327          RC    .035    .025    .035    1500    .003
328          RX       0       1       2    22.6    38.6    59.2      60      61
329          RY     9.3     9.3     9.3       0       0     9.3     9.3     9.3
             * DDM   ***** Updated *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

330          KK     260
331          KM   SUB-BASIN 260
332          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
333          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
334          KM     L =  .81  Kb = .049  Adj. Slope =   68.0
335          BA    .267
336          LG    .300    .170   6.800    .160  15.000
337          UC    .363    .215
338          UA       0       5      16      30      65      77      84      90      94      97
339          UA     100
             * DDM   ***** Preserved *****

340          KK    260C
341          KM   HYDROGRAPH COMBINATION FOR OUTFLOW OF SIGNAL BUTTE FRS & SUB-BASIN 260
342          HC       2    .267
             * DDM   ***** Preserved *****

343          KK    R260
344          KM   ROUTE FLOW FROM SUB-BASIN 260 TO SUB-BASIN 280
345          RS       2    FLOW      -1
346          RC    .035    .025    .035    2300    .003
347          RX       0       1       2    23.4    43.4    64.8      65      66
348          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
             * DDM   ***** Updated *****

349          KK     280
350          KM   SUB-BASIN 280
351          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
352          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
353          KM     L =  .77  Kb = .049  Adj. Slope =   84.0
354          BA    .304
355          LG    .300    .250   5.300    .290  15.000
356          UC    .333    .175
357          UA       0       5      16      30      65      77      84      90      94      97
358          UA     100
             * DDM   ***** Preserved *****

359          KK    280C
360          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 260 & SUB-BASIN 280
361          HC       2
             * DDM   ***** Preserved *****

362          KK    R280
363          KM   ROUTE FLOW FROM SUB-BASIN 280 TO SUB-BASIN 300
364          RS       2    FLOW      -1
365          RC    .035    .025    .035    2500    .003
366          RX       0       1       2    23.4    43.4    64.8      65      66
367          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
             * DDM   ***** Updated *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

368          KK     300
369          KM   SUB-BASIN 300
370          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
371          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
372          KM     L = 2.28  Kb = .041  Adj. Slope =  127.0
373          BA    .988
374          LG    .340    .320   4.500    .370   7.000
375          UC    .538    .362
376          UA       0       5      16      30      65      77      84      90      94      97
377          UA     100
             * DDM   ***** Preserved *****

378          KK    300C
379          KM   HYDROGRAPH COMBINATION OF SUB-BASIN 280 & 300
380          HC       2
             * DDM   ***** Preserved *****

381          KK    R300
382          KM   ROUTE FLOW FROM SUB-BASIN 300 TO START OF FLOODWAY CONCRETE CHANNEL
383          RS       2    FLOW      -1
384          RC    .035    .025    .035    2200    .003
385          RX       0       1       2    23.4    55.4    76.8      77      78
386          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
             * DDM   ***** Preserved *****

387          KK   RR300
388          KM   CONTINUE TO ROUTE FLOW WITHIN CONCRETE CHANNEL TO SPOOK HILL FRS
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389          RS       2    FLOW      -1
390          RC    .016    .016    .016    6050   .0146
391          RX       0       1       2     2.1    16.1    16.2      17      18
392          RY     7.5     7.5     7.5       0       0     7.5     7.5     7.5
             *      1       2
             * DDM   ***** Updated *****

393          KK     350
394          KM   SUB-BASIN 350
395          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
396          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
397          KM     L = 2.22  Kb = .042  Adj. Slope =  315.0
398          BA    .970
399          LG    .350    .350   4.550    .340   4.000
400          UC    .367    .234
401          UA       0       3       5       8      12      20      43      75      90      96
402          UA     100
             * DDM   ***** Preserved *****

403          KK    D350
404          KM   DIVERT FLOW FROM SUB-BASIN 350. FOR MODELING PURPOSES THE SPLIT FLOW WILL
405          KM   BE ROUTED BETWEEN SUB-BASINS 355 & 310. THE MAIN FLOW WILL ROUTED TO 310
406          DT   SF350
407          DI       0   10000
408          DQ       0    6000
             * DDM   ***** Preserved *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

409          KK    350R
410          KM   ROUTING OF MAIN FLOW FROM DIVERSION OF SUB-BASIN 350 TO SUB-BASIN 310
411          RS       5    FLOW      -1
412          RC    .045    .045    .045    5379    .024
413          RX       0       1       2      11      26      35      36      37
414          RY       3       3       3       0       0       3       3       3
             * DDM   ***** Updated *****

415          KK     310
416          KM   SUB-BASIN 310
417          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
418          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
419          KM     L = 2.70  Kb = .045  Adj. Slope =  283.5
420          BA    .555
421          LG    .350    .350   3.910    .480    .000
422          UC    .483    .511
423          UA       0       3       5       8      12      20      43      75      90      96
424          UA     100
             * DDM   ***** Preserved *****

425          KK    C310
426          KM   HYDROGRAPH COMBINATION OF SUB-BASINS 350 & 310
427          HC       2    .943
             * DDM   ***** Preserved *****

428          KK    R310
429          KM   ROUTING OF FLOW FROM SUB-BASIN 310 TO 320
430          RS       8    FLOW      -1
431          RC    .045    .045    .045   10050    .022
432          RX       0       1       2      14      29      41      42      43
433          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

434          KK     320
435          KM   SUB-BASIN 320
436          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
437          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
438          KM     L = 2.20  Kb = .042  Adj. Slope =  132.0
439          BA    .972
440          LG    .310    .300   4.550    .360  14.000
441          UC    .508    .333
442          UA       0       5      16      30      65      77      84      90      94      97
443          UA     100
             * DDM   ***** Preserved *****

444          KK    D320
445          KM       DIVERT FLOW INTO ONLINE  DETENTION BASIN
446          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THREE SUBDIVISIONS
447          KM   SIERRA HEIGHTS       FALCON RIDGE    & MARBLE CREEK
448          KM       MAXIMUM VOLUME DIVERSION = 12.27acre-feet
             *      1
449          DT   BS320   12.27
450          DI       0   10000
451          DQ       0   10000
             * DDM   ***** Preserved *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

452          KK   RT320
453          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
454          DR   BS320
             * DDM   ***** Preserved *****

455          KK   SR320
456          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
457          KM   12.27 ACRE-FEETx43560/36x3600=4.1cfs
             *      1
458          RS       1    STOR       0
459          SV       0     .01    12.3
460          SQ       0     4.2     4.2
             * DDM   ***** Preserved *****

461          KK    C320
462          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
463          HC       4
             * DDM   ***** Updated *****

464          KK     340
465          KM   SUB-BASIN 340
466          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
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311          RY       5       5       5       0       0       5       5       5
             * DDM   ***** Preserved *****

312          KK    C180
313          KM   HYDROGRAPH COMBINATION FOR SIGNAL BUTTE FRS
             *      1       2
314          HC       2
             * DDM   ***** Preserved *****

315          KK   SR180
316          KM   SIGNAL BUTTE FRS DATED 1/28/85
317          KM   OUTLET PIPE=36"RCP; L= 147';  INLET INV.=1690; OUTLET INV.=1687
318          KM   EMERGENCY SPILLWAY ELEV.=1712.4; PRINCIPLE SPILLWAY ELEV.=1701
319          KM   STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 250 ACRE-FEET
320          RS       1    STOR       0
321          SV       0       1     250     500     750    1060
322          SQ       0   106.5   125.5   137.5     146     160
323          SE      90     101   104.5     107     109   112.4
             * DDM   ***** Preserved *****

324          KK    R180
325          KM   ROUTE FLOW FROM SIGNAL BUTTE FRS TO SUB-BASIN 260
326          RS       1    FLOW      -1
327          RC    .035    .025    .035    1500    .003
328          RX       0       1       2    22.6    38.6    59.2      60      61
329          RY     9.3     9.3     9.3       0       0     9.3     9.3     9.3
             * DDM   ***** Updated *****
1                                        HEC-1 INPUT                                          PAGE  9

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

330          KK     260
331          KM   SUB-BASIN 260
332          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
333          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
334          KM     L =  .81  Kb = .049  Adj. Slope =   68.0
335          BA    .267
336          LG    .300    .170   6.800    .160  15.000
337          UC    .363    .215
338          UA       0       5      16      30      65      77      84      90      94      97
339          UA     100
             * DDM   ***** Preserved *****

340          KK    260C
341          KM   HYDROGRAPH COMBINATION FOR OUTFLOW OF SIGNAL BUTTE FRS & SUB-BASIN 260
342          HC       2    .267
             * DDM   ***** Preserved *****

343          KK    R260
344          KM   ROUTE FLOW FROM SUB-BASIN 260 TO SUB-BASIN 280
345          RS       2    FLOW      -1
346          RC    .035    .025    .035    2300    .003
347          RX       0       1       2    23.4    43.4    64.8      65      66
348          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
             * DDM   ***** Updated *****

349          KK     280
350          KM   SUB-BASIN 280
351          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
352          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
353          KM     L =  .77  Kb = .049  Adj. Slope =   84.0
354          BA    .304
355          LG    .300    .250   5.300    .290  15.000
356          UC    .333    .175
357          UA       0       5      16      30      65      77      84      90      94      97
358          UA     100
             * DDM   ***** Preserved *****

359          KK    280C
360          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 260 & SUB-BASIN 280
361          HC       2
             * DDM   ***** Preserved *****

362          KK    R280
363          KM   ROUTE FLOW FROM SUB-BASIN 280 TO SUB-BASIN 300
364          RS       2    FLOW      -1
365          RC    .035    .025    .035    2500    .003
366          RX       0       1       2    23.4    43.4    64.8      65      66
367          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
             * DDM   ***** Updated *****
1                                        HEC-1 INPUT                                          PAGE 10

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

368          KK     300
369          KM   SUB-BASIN 300
370          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
371          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
372          KM     L = 2.28  Kb = .041  Adj. Slope =  127.0
373          BA    .988
374          LG    .340    .320   4.500    .370   7.000
375          UC    .538    .362
376          UA       0       5      16      30      65      77      84      90      94      97
377          UA     100
             * DDM   ***** Preserved *****

378          KK    300C
379          KM   HYDROGRAPH COMBINATION OF SUB-BASIN 280 & 300
380          HC       2
             * DDM   ***** Preserved *****

381          KK    R300
382          KM   ROUTE FLOW FROM SUB-BASIN 300 TO START OF FLOODWAY CONCRETE CHANNEL
383          RS       2    FLOW      -1
384          RC    .035    .025    .035    2200    .003
385          RX       0       1       2    23.4    55.4    76.8      77      78
386          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
             * DDM   ***** Preserved *****

387          KK   RR300
388          KM   CONTINUE TO ROUTE FLOW WITHIN CONCRETE CHANNEL TO SPOOK HILL FRS
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389          RS       2    FLOW      -1
390          RC    .016    .016    .016    6050    .0146
391          RX       0       1       2     2.1     16.1    16.2      17      18
392          RY     7.5     7.5     7.5       0        0     7.5     7.5     7.5
             *      1       2
             * DDM   ***** Updated *****

393          KK     350
394          KM   SUB-BASIN 350
395          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
396          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
397          KM     L = 2.22  Kb = .042  Adj. Slope =  315.0
398          BA    .970
399          LG    .350    .350   4.550    .340   4.000
400          UC    .367    .234
401          UA       0       3       5       8      12      20      43      75      90      96
402          UA     100
             * DDM   ***** Preserved *****

403          KK    D350
404          KM   DIVERT FLOW FROM SUB-BASIN 350. FOR MODELING PURPOSES THE SPLIT FLOW WILL
405          KM   BE ROUTED BETWEEN SUB-BASINS 355 & 310. THE MAIN FLOW WILL ROUTED TO 310
406          DT   SF350
407          DI       0   10000
408          DQ       0    6000
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE 11

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

409          KK    350R
410          KM   ROUTING OF MAIN FLOW FROM DIVERSION OF SUB-BASIN 350 TO SUB-BASIN 310
411          RS       5    FLOW      -1
412          RC    .045    .045    .045    5379    .024
413          RX       0       1       2      11      26      35      36      37
414          RY       3       3       3       0       0       3       3       3
             * DDM   ***** Updated *****

415          KK     310
416          KM   SUB-BASIN 310
417          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
418          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
419          KM     L = 2.70  Kb = .045  Adj. Slope =  283.5
420          BA    .555
421          LG    .350    .350   3.910    .480    .000
422          UC    .483    .511
423          UA       0       3       5       8      12      20      43      75      90      96
424          UA     100
             * DDM   ***** Preserved *****

425          KK    C310
426          KM   HYDROGRAPH COMBINATION OF SUB-BASINS 350 & 310
427          HC       2    .943
             * DDM   ***** Preserved *****

428          KK    R310
429          KM   ROUTING OF FLOW FROM SUB-BASIN 310 TO 320
430          RS       8    FLOW      -1
431          RC    .045    .045    .045   10050    .022
432          RX       0       1       2      14      29      41      42      43
433          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

434          KK     320
435          KM   SUB-BASIN 320
436          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
437          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
438          KM     L = 2.20  Kb = .042  Adj. Slope =  132.0
439          BA    .972
440          LG    .310    .300   4.550    .360  14.000
441          UC    .508    .333
442          UA       0       5      16      30      65      77      84      90      94      97
443          UA     100
             * DDM   ***** Preserved *****

444          KK    D320
445          KM       DIVERT FLOW INTO ONLINE  DETENTION BASIN
446          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THREE SUBDIVISIONS
447          KM   SIERRA HEIGHTS       FALCON RIDGE    & MARBLE CREEK
448          KM       MAXIMUM VOLUME DIVERSION = 12.27acre-feet
             *      1
449          DT   BS320   12.27
450          DI       0   10000
451          DQ       0   10000
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE 12

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

452          KK   RT320
453          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
454          DR   BS320
             * DDM   ***** Preserved *****

455          KK   SR320
456          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
457          KM   12.27 ACRE-FEETx43560/36x3600=4.1cfs
             *      1
458          RS       1    STOR       0
459          SV       0     .01    12.3
460          SQ       0     4.2     4.2
             * DDM   ***** Preserved *****

461          KK    C320
462          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
463          HC       4
             * DDM   ***** Updated *****

464          KK     340
465          KM   SUB-BASIN 340
466          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
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467          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
468          KM     L = 2.40  Kb = .042  Adj. Slope =  160.0
469          BA   1.449
470          LG    .280    .280   4.150    .520  21.000
471          UC    .512    .287
472          UA       0       5      16      30      65      77      84      90      94      97
473          UA     100
             * DDM   ***** Preserved *****

474          KK    D340
475          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
476          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THREE SUBDIVISIONS
477          KM   GRANDVIEW ESTATES    BOULDER MOUNTAIN & 33% OF MESA HIGHLANDS
478          KM        MAXIMUM VOLUME DIVERSION = 56.0 acre-feet
             *      1
479          DT   BS340      56
480          DI       0   10000
481          DQ       0   10000
             * DDM   ***** Preserved *****

482          KK   RT340
483          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
484          DR   BS340
             * DDM   ***** Preserved *****

485          KK   SR340
486          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
487          KM    56.0 ACRE-FEETx43560/36x3600=18.8cfs
             *      1
488          RS       1    STOR       0
489          SV       0     .01      56
490          SQ       0    18.9    18.9
             * DDM   ***** Preserved *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

491          KK    C340
492          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
493          HC       3
             * DDM   ***** Preserved *****

494          KK   RT350
495          KM   RETRIEVE SPLIT FLOW FROM DIVERSION OF SUB-BASIN 350
496          DR   SF350
             * DDM   ***** Preserved *****

497          KK   RR350
498          KM   ROUTING OF FLOW FROM SPLIT OF SUB-BASIN 350 TO 355
499          RS       5    FLOW      -1
500          RC    .045    .045    .045    6150    .023
501          RX       0       1       2      14      29      41      42      43
502          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

503          KK     355
504          KM   SUB-BASIN 355
505          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
506          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
507          KM     L = 3.00  Kb = .044  Adj. Slope =  284.0
508          BA    .659
509          LG    .340    .340   4.450    .370   4.000
510          UC    .488    .509
511          UA       0       3       5       8      12      20      43      75      90      96
512          UA     100
             * DDM   ***** Preserved *****

513          KK    C355
514          KM   HYDROGRAPH COMBINATION OF SUB-BASIN 355 AND THE SPLIT FLOW FROM SUB-BASIN 350
515          HC       2    1.24
             * DDM   ***** Preserved *****

516          KK    R355
517          KM   ROUTING OF FLOW FROM SUB-BASIN 355 TO SUB-BASIN 360
518          RS       9    FLOW      -1
519          RC    .045    .045    .045   11535    .023
520          RX       0       1       2      14      34      46      47      48
521          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

522          KK     370
523          KM   SUB-BASIN 370
524          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
525          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
526          KM     L = 2.90  Kb = .044  Adj. Slope =  294.6
527          BA    .667
528          LG    .340    .320   4.650    .330   9.000
529          UC    .454    .455
530          UA       0       3       5       8      12      20      43      75      90      96
531          UA     100
             * DDM   ***** Preserved *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

532          KK    R370
533          KM   ROUTING OF FLOW FROM SUB-BASIN 370 TO 360
534          RS      10    FLOW      -1
535          RC    .045    .045    .045   11782    .021
536          RX       0       1       2      14      29      41      42      43
537          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

538          KK     360
539          KM   SUB-BASIN 360
540          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
541          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
542          KM     L = 2.10  Kb = .048  Adj. Slope =  124.0
543          BA    .670
544          LG    .260    .270   4.100    .560  20.000
545          UC    .587    .466
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546          UA       0       5      16      30      65      77      84      90      94      97
547          UA     100
             * DDM   ***** Preserved *****

548          KK    D360
549          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
550          KM   DETENTION/RETENTION BASINS LOCATED WITHIN 33% OF MESA HIGHLANDS
551          KM        MAXIMUM VOLUME DIVERSION = 28.6 acre-feet
             *      1
552          DT   BS360    28.6
553          DI       0   10000
554          DQ       0   10000
             * DDM   ***** Preserved *****

555          KK   RT360
556          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
557          DR   BS360
             * DDM   ***** Preserved *****

558          KK   SR360
559          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
560          KM    28.6 ACRE-FEETx43560/36x3600=9.6cfs
561          RS       1    STOR       0
562          SV       0     .01    28.6
563          SQ       0     9.6     9.6
             * DDM   ***** Preserved *****

564          KK    360C
565          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
566          HC       5
             * DDM   ***** Updated *****

567          KK     395
568          KM   SUB-BASIN 395
569          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
570          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
571          KM     L = 1.60  Kb = .051  Adj. Slope =  215.8
572          BA    .198
1                                    HEC-1 INPUT                                          PAGE 15

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

573          LG    .330    .320   4.900    .300  10.000
574          UC    .383    .468
575          UA       0       3       5       8      12      20      43      75      90      96
576          UA     100
             * DDM   ***** Preserved *****

577          KK    R395
578          KM   ROUTING OF FLOW FROM SUB-BASIN 395 TO SUB-BASIN 380
579          RS      13    FLOW      -1
580          RC    .045    .045    .045   11300    .021
581          RX       0       1       2      11      26      35      36      37
582          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

583          KK     380
584          KM   SUB-BASIN 380
585          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
586          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
587          KM     L = 2.20  Kb = .048  Adj. Slope =  114.0
588          BA    .972
589          LG    .300    .310   4.150    .500   7.000
590          UC    .658    .444
591          UA       0       5      16      30      65      77      84      90      94      97
592          UA     100
             * DDM   ***** Preserved *****

593          KK    D380
594          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
595          KM   DETENTION/RETENTION BASINS LOCATED WITHIN 33% OF MESA HIGHLANDS
596          KM        MAXIMUM VOLUME DIVERSION = 28.6 acre-feet
             *      1
597          DT   BS380    28.6
598          DI       0   10000
599          DQ       0   10000
             * DDM   ***** Preserved *****

600          KK   RT380
601          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
602          DR   BS380
             * DDM   ***** Preserved *****

603          KK   SR380
604          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
605          KM    28.6 ACRE-FEETx43560/36x3600=9.6cfs
606          RS       1    STOR       0
607          SV       0     .01    28.6
608          SQ       0     9.6     9.6
             * DDM   ***** Preserved *****

609          KK    380C
610          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
611          HC       4
             * DDM   ***** Updated *****
1                                    HEC-1 INPUT                                          PAGE 16

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

612          KK     390
613          KM   SUB-BASIN 390
614          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
615          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
616          KM     L =  .70  Kb = .050  Adj. Slope =  299.4
617          BA    .244
618          LG    .300    .250   4.700    .380  18.000
619          UC    .204    .107
620          UA       0       5      16      30      65      77      84      90      94      97
621          UA     100
             * DDM   ***** Preserved *****

622          KK    D390
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623          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
624          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THUNDER MOUNTAIN ESTATES
625          KM        MAXIMUM VOLUME DIVERSION  = 3.5 acre-feet
             *      1
626          DT   BS390     3.5
627          DI       0   10000
628          DQ       0   10000
             * DDM   ***** Preserved *****

629          KK   RT390
630          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
631          DR   BS390
             * DDM   ***** Preserved *****

632          KK   SR390
633          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
634          KM     3.5 ACRE-FEETx43560/36x3600=1.2cfs
635          RS       1    STOR       0
636          SV       0     .01     3.5
637          SQ       0     1.2     1.2
             * DDM   ***** Preserved *****

638          KK    390C
639          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
640          HC       2
             * DDM   ***** Preserved *****

641          KK   RR390
642          KM   FROM SUB-BASIN 390 TO SUB-BASIN 400
643          RS       8    FLOW      -1
644          RC    .045    .045    .045    9029    .020
645          RX       0       1       2      14      19      31      32      33
646          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

647          KK     400
648          KM   SUB-BASIN 400
649          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
650          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
651          KM     L = 1.64  Kb = .046  Adj. Slope =  110.0
652          BA    .616
1                                    HEC-1 INPUT                                          PAGE 17

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

653          LG    .320    .320   3.130    .930   6.000
654          UC    .592    .405
655          UA       0       5      16      30      65      77      84      90      94      97
656          UA     100
             * DDM   ***** Preserved *****

657          KK    D400
658          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
659          KM   DETENTION/RETENTION BASIN LOCATED WITHIN SAGUARO VISTA SUBDIVISION
660          KM        MAXIMUM VOLUME DIVERSION = 5.6 ACRE-FEET
             *      1
661          DT   BS400     5.6
662          DI       0   10000
663          DQ       0   10000
             * DDM   ***** Preserved *****

664          KK   RT400
665          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
666          DR   BS400
             * DDM   ***** Preserved *****

667          KK   SR400
668          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
669          KM     5.6 ACRE-FEETx43560/36x3600 = 2 cfs
670          RS       1    STOR       0
671          SV       0     .01     5.6
672          SQ       0       2       2
             * DDM   ***** Preserved *****

673          KK    C400
674          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
675          HC       2
             * DDM   ***** Preserved *****

676          KK    400C
677          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
678          HC       3
             * DDM   ***** Updated *****

679          KK     385
680          KM   SUB-BASIN 385
681          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
682          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
683          KM     L = 2.30  Kb = .044  Adj. Slope =  303.0
684          BA    .647
685          LG    .350    .370   5.600    .210  13.000
686          UC    .375    .311
687          UA       0       3       5       8      12      20      43      75      90      96
688          UA     100
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE 18

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

689          KK    D385
690          KM   DIVERT FLOW INTO SUB-BASINS 415 & 420
691          DT   SF385
692          DI       0   10000
693          DQ       0    4000
             * DDM   ***** Preserved *****

694          KK    385R
695          KM   ROUTING OF FLOW DIVERSION FROM SUB-BASIN 385 INTO SUB-BASIN 420
696          RS       9    FLOW      -1
697          RC    .045    .045    .045   10233    .022
698          RX       0       1       2      14      19      31      32      33
699          RY       4       4       4       0       0       4       4       4
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            * DDM   ***** Updated *****

700         KK     420
701         KM   SUB-BASIN 420
702         KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
703         KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .995
704         KM     L = 1.91  Kb = .042  Adj. Slope =  120.0
705         BA    .849
706         LG    .310    .270   3.880    .580  12.000
707         UC    .512    .325
708         UA       0       5      16      30      65      77      84      90      94      97
709         UA     100
            * DDM   ***** Preserved *****

710         KK    D420
711         KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
712         KM   DETENTION/RETENTION BASINS LOCATED WITHIN GRAY FOX SUBDIVISION
713         KM        MAXIMUM VOLUME DIVERSION = 8.65 acre-feet
            *      1
714         DT   BS420    8.65
715         DI       0   10000
716         DQ       0   10000
            * DDM   ***** Preserved *****

717         KK   RT420
718         KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
719         DR   BS420
            * DDM   ***** Preserved *****

720         KK   SR420
721         KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
722         KM   38.55 ACRE-FEETx43560/36x3600=13cfs
723         RS       1    STOR       0
724         SV       0     .01   38.55
725         SQ       0      13      13
            * DDM   ***** Preserved *****
1                                   HEC-1 INPUT                                          PAGE 19

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


726         KK    420C
727         KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
728         HC       4   10.77
            * DDM   ***** Updated *****

729         KK     440
730         KM   SUB-BASIN 440
731         KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
732         KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
733         KM     L =  .40  Kb = .039  Adj. Slope =  315.0
734         BA    .080
735         LG    .190    .380   6.400    .140  13.000
736         UC    .129    .077
737         UA       0       3       5       8      12      20      43      75      90      96
738         UA     100
            * DDM   ***** Preserved *****

739         KK     R70
740         KM   ROUTE FLOW FROM SUB-BASIN 440 TO C108
741         RS       1    FLOW      -1
742         RC     .05    .035     .05    2250     .08
743         RX    1000    1025    1050    1070    1075    1095    1120    1145
744         RY      30    22.9    15.7      10      10    15.7    22.9      30
            * DDM   ***** Updated *****

745         KK     441
746         KM   SUB-BASIN 441
747         KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
748         KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
749         KM     L =  .28  Kb = .069  Adj. Slope =  315.0
750         BA    .010
751         LG    .300    .250   5.600    .220   5.000
752         UC    .150    .225
753         UA       0       5      16      30      65      77      84      90      94      97
754         UA     100
            * DDM   ***** Preserved *****

755         KK    C108
756         KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 440 & 441
757         HC       2
            * DDM   ***** Preserved *****

758         KK    DIV4
759         KM        SPLIT FLOW WITH TWO 42 INCH PIPES TO WEST AND SOUTH
            *      1
760         DT   SPLIT
761         DI       0      14      40      82     120     154     180
762         DQ       0       7      20      41      60      77      90
            * DDM   ***** Preserved *****
1                                   HEC-1 INPUT                                          PAGE 20

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


763         KK    R108
764         KM        ROUTE FLOW FROM SUB-BASIN C108 TO C67
765         RS       2    FLOW      -1
766         RC     .05    .035     .05    3200      .1
767         RX    1000    1025    1050    1070    1075    1095    1120    1145
768         RY      30    22.9    15.7      10      10    15.7    22.9      30
            * DDM   ***** Updated *****

769         KK     442
770         KM   SUB-BASIN 442
771         KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
772         KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
773         KM     L =  .83  Kb = .055  Adj. Slope =  274.2
774         BA    .100
775         LG    .300    .270   3.290    .770   5.000
776         UC    .258    .264
777         UA       0       5      16      30      65      77      84      90      94      97
778         UA     100
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          * DDM   ***** Preserved *****

779       KK     C67
780       KM   COMBINE FLOW FROM SUB-BASIN 442 & DIV4
781       HC       2
          * DDM   ***** Preserved *****

782       KK    DIV6
783       KM        OFFLINE BASIN WITH 25 FOOT WEIR SET AT 2.5 FEET ABOVE BOTTOM OF CHANNEL
784       KM        FLOW CONTINUES BEYOND BASIN THROUGH 2-30" PIPES
          *      1
785       DT  BASIN4
786       DI       0      10      32      44    79.9   132.5     198   272.9   356.8
787       DQ       0       0       0       0    23.9    67.5     124   190.9   266.8
          * DDM   ***** Preserved *****

788       KK  RTDIV6
789       KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
790       DR  BASIN4
          * DDM   ***** Preserved *****

791       KK  RFDIV6
792       KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
793       KM     3.3 ACRE-FEETx43560/36x3600=1.1cfs
          *      1
794       RS       1    STOR       0
795       SV       0     .01     3.3
796       SQ       0     1.1     1.1
          * DDM   ***** Preserved *****

797       KK   CDIV6
798       KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
799       HC       2
          * DDM   ***** Updated *****
1                                   HEC-1 INPUT                                          PAGE 21

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

800       KK     443
801       KM   SUB-BASIN 443
802       KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
803       KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
804       KM     L =  .71  Kb = .050  Adj. Slope =  315.0
805       BA    .080
806       LG    .250    .190   8.000    .080  10.000
807       UC    .196    .194
808       UA       0       5      16      30      65      77      84      90      94      97
809       UA     100
          * DDM   ***** Preserved *****

810       KK   DIV66
811       KM        DIVERT FLOW INTO 3 NATURAL WASHES WITH ONE 24" PIPE IN EACH WASH.
812       KM        EACH PIPE CAPACITY BASED ON 4 FEET OF HEAD
813       DT   WSH66
814       DI       0      78     100     200
815       DQ       0      78      78      78
          * DDM   ***** Preserved *****

816       KK    R113
817       KM        ROUTE FLOW FROM C113 TO C114
818       RS       1    FLOW      -1
819       RC    .019    .019    .019    1300    .029
820       RX    1000    1004    1008    1012    1018    1022    1026    1030
821       RY      17   15.33   12.67      10      10   12.67   15.33      17
          * DDM   ***** Preserved *****

822       KK    C114
823       KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 67 AND C113
824       HC       2
          * DDM   ***** Updated *****

825       KK     444
826       KM   SUB-BASIN 444
827       KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
828       KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
829       KM     L =  .33  Kb = .034  Adj. Slope =  315.0
830       BA    .040
831       LG    .130    .350   4.450    .320   1.000
832       UC    .112    .084
833       UA       0       3       5       8      12      20      43      75      90      96
834       UA     100
          * DDM   ***** Preserved *****

835       KK     R58
836       KM   ROUTE FLOW FROM SUB-BASIN 444 TO C107
837       RS       2    FLOW      -1
838       RC     .05    .035     .05    2370   .0516
839       RX    1000    1010    1020    1050    1055    1085    1095    1105
840       RY      19      18      17      10      10      17      18      19
          * DDM   ***** Updated *****
1                                   HEC-1 INPUT                                          PAGE 22

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

841       KK     445
842       KM   SUB-BASIN 445
843       KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
844       KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
845       KM     L =  .82  Kb = .036  Adj. Slope =  315.0
846       BA    .190
847       LG    .170    .320   3.470    .590   3.000
848       UC    .192    .130
849       UA       0       5      16      30      65      77      84      90      94      97
850       UA     100
          * DDM   ***** Preserved *****

851       KK    C107
852       KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 444 & 445
853       HC       2
          * DDM   ***** Preserved *****
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854          KK    R107
855          KM        ROUTE FLOW FROM C107 TO C109
856          RS       1    FLOW      -1
857          RC     .05    .035     .05     700   .0516
858          RX    1000    1010    1020    1050    1055    1085    1095    1105
859          RY      19      18      17      10      10      17      18      19
             * DDM   ***** Preserved *****

860          KK    RTB2
861          KM        RETRIEVE DIVERTED FLOW FROM BASIN 1
             *      1
862          DR   SPLIT
             * DDM   ***** Preserved *****

863          KK  RSPLIT
864          KM        ROUTE FLOW FROM SPLIT TO C109
865          RS       1    FLOW      -1
866          RC     .05    .035     .05     800     .05
867          RX    1000    1025    1050    1070    1075    1095    1120    1145
868          RY      30    22.9    15.7      10      10    15.7    22.9      30
             * DDM   ***** Updated *****

869          KK     446
870          KM   SUB-BASIN 446
871          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
872          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
873          KM     L =  .46  Kb = .061  Adj. Slope =  303.9
874          BA    .040
875          LG    .270    .250   4.500    .400  19.000
876          UC    .183    .189
877          UA       0       5      16      30      65      77      84      90      94      97
878          UA     100
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 23

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

879          KK    C109
880          KM        COMBINE HYDROGRAPHS FROM COMBINES C107 AND C108
881          HC       3
             * DDM   ***** Preserved *****

882          KK    DIV5
883          KM        DIVERT FLOW INTO WASHES TOWARDS WEST
884          KM        DIVERSION THROUGH 36" PIPE WITH 3 FEET OF HEAD
             *      1
885          DT  WSH404
886          DI       0    40.7    71.2   121.6     190     276   379.4   500.6
887          DQ       0      35      35      35      35      35      35      35
             * DDM   ***** Preserved *****

888          KK    R109
889          KM        ROUTE FLOW FROM C109 TO C110
890          RS       1    FLOW      -1
891          RC    .019    .019    .019    3080     .05
892          RX    1000    1005    1010    1015    1025    1030    1035    1040
893          RY   13.75    12.5   11.25      10      10   11.25    12.5   13.75
             * DDM   ***** Updated *****

894          KK     447
895          KM   SUB-BASIN 447
896          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
897          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
898          KM     L =  .49  Kb = .056  Adj. Slope =  221.0
899          BA    .090
900          LG    .250    .270   3.350    .870  30.000
901          UC    .208    .145
902          UA       0       5      16      30      65      77      84      90      94      97
903          UA     100
             * DDM   ***** Preserved *****

904          KK   RT404
905          KM        RETRIEVE DIVERTED FLOW FOR WASH 109
906          DR  WSH404
             * DDM   ***** Preserved *****

907          KK    R404
908          KM        ROUTE FLOW FROM C110 TO C110
909          RS       5    FLOW      -1
910          RC    .019    .019    .019    3540     .03
911          RX    1000    1012    1016    1020    1025    1029    1033    1045
912          RY      15      12      11      10      10      11      12      15
             * DDM   ***** Preserved *****

913          KK    C110
914          KM   COMBINE HYDROGRAPHS FROM SUB-BASIN 447 AND R404
915          HC       3
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 24

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

916          KK    R110
917          KM        ROUTE FLOW FROM C110 TO C115
918          RS       1    FLOW      -1
919          RC    .019    .019    .019     580   .0291
920          RX    1000    1012    1016    1020    1035    1039    1043    1055
921          RY      15      12      11      10      10      11      12      15
             * DDM   ***** Preserved *****

922          KK    C115
923          KM        COMBINE HYDROGRAPHS FROM C114 AND C110
924          HC       2
             * DDM   ***** Preserved *****

925          KK    R115
926          KM        ROUTE FLOW FROM C115 TO C119
927          RS       1    FLOW      -1
928          RC    .019    .019    .019    2125     .029
929          RC    .019    .019    .019     580   .0291
930          RX    1000    1012    1016    1020    1035    1039    1043    1055
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931   RY      15      12      11      10      10      11      12      15
      * DDM   ***** Updated *****

932   KK     448
933   KM   SUB-BASIN 448
934   KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
935   KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
936   KM     L =  .36  Kb = .042  Adj. Slope =  315.0
937   BA    .045
938   LG    .170    .310   4.200    .390  11.000
939   UC    .133    .102
940   UA       0       5      16      30      65      77      84      90      94      97
941   UA     100
      * DDM   ***** Updated *****

942   KK     449
943   KM   SUB-BASIN 449
944   KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
945   KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
946   KM     L =  .40  Kb = .054  Adj. Slope =  315.0
947   BA    .050
948   LG    .260    .280   3.500    .640   6.000
949   UC    .167    .134
950   UA       0       5      16      30      65      77      84      90      94      97
951   UA     100
      * DDM   ***** Preserved *****

952   KK   C6364
953   KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 448 & 449
954   HC       2
      * DDM   ***** Preserved *****
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LINE  ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

955   KK   R6364
956   KM   ROUTE FLOW FROM C116 AND SUB-BASINS 448 AND 449
957   RS       4    FLOW      -1
958   RC     .05    .035     .05    4375   .0333
959   RX    1000    1027    1053    1080    1090    1117    1143    1170
960   RY      15   13.33   11.67      10      10   11.67   13.33      15
      * DDM   ***** Updated *****

961   KK     450
962   KM   SUB-BASIN 450
963   KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
964   KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
965   KM     L =  .85  Kb = .057  Adj. Slope =  210.5
966   BA    .070
967   LG    .340    .350   3.630    .570   4.000
968   UC    .296    .383
969   UA       0       3       5       8      12      20      43      75      90      96
970   UA     100
      * DDM   ***** Updated *****

971   KK     451
972   KM   SUB-BASIN 451
973   KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
974   KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
975   KM     L =  .57  Kb = .063  Adj. Slope =  175.0
976   BA    .025
977   LG    .340    .340   3.290    .750   3.000
978   UC    .271    .453
979   UA       0       3       5       8      12      20      43      75      90      96
980   UA     100
      * DDM   ***** Preserved *****

981   KK    RT66
982   KM        RETRIEVE DIVERTED FLOW FROM SUB-BASIN 66
983   DR   WSH66
      * DDM   ***** Updated *****

984   KK     452
985   KM   SUB-BASIN 452
986   KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
987   KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
988   KM     L =  .43  Kb = .055  Adj. Slope =  315.0
989   BA    .040
990   LG    .260    .280   3.700    .550   9.000
991   UC    .171    .166
992   UA       0       5      16      30      65      77      84      90      94      97
993   UA     100
      * DDM   ***** Preserved *****
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LINE  ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

994   KK   C6465
995   KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 443 AND 452
996   HC       2
      * DDM   ***** Preserved *****

997   KK   R6566
998   KM        ROUTE FLOW FROM DIVERSIONS 65 AND 66 TO C116
999   RS       2    FLOW      -1
1000  RC     .05    .035     .05    2435   .0282
1001  RX    1000    1045    1090    1150    1160    1220    1265    1310
1002  RY      25      23      20      10      10      20      23      25
      * DDM   ***** Preserved *****

1003  KK    C116
1004  KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 450 & 451 AND R6364 & R6465
1005  HC       4
      * DDM   ***** Preserved *****

1006  KK  BASIN5
1007  KM        RESERVOIR WITHIN PARCEL 31      2-48 INCH PIPES AT OUTFALL
1008  KM        BASIN 5 FEET DEEP
1009  RS       1    ELEV       0
1010  SV       0     4.5     9.9
1011  SQ       0      69     190
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1012        SE       0     2.5       5
            * DDM   ***** Preserved *****

1013        KK    R116
1014        KM   ROUTE FLOW FROM C116 TO C117
1015        RS       2    FLOW      -1
1016        RC     .05    .035     .05    1300   .0333
1017        RX    1000    1100    1200    1300    1320    1420    1520    1620
1018        RY      13      12      11      10      10      11      12      13
            * DDM   ***** Updated *****

1019        KK     453
1020        KM   SUB-BASIN 453
1021        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1022        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
1023        KM     L =  .58  Kb = .058  Adj. Slope =  138.0
1024        BA    .060
1025        LG    .290    .300   3.290    .820  18.000
1026        UC    .275    .284
1027        UA       0       5      16      30      65      77      84      90      94      97
1028        UA     100
            * DDM   ***** Preserved *****

1029        KK    C117
1030        KM   COMBINE HYDROGRAPHS FROM SUB-BASIN 453 AND R116
1031        HC       2
            * DDM   ***** Preserved *****
1                                   HEC-1 INPUT                                          PAGE 27

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


1032        KK    C118
1033        KM   COMBINE HYDROGRAPHS FROM R115 AND C117
1034        HC       2
            * DDM   ***** Preserved *****

1035        KK    R118
1036        KM        ROUTE FLOW FROM C118 TO  DIV7
1037        RS       1    FLOW      -1
1038        RC    .019    .019    .019    1500    .024
1039        RX    1000    1012    1016    1020    1035    1039    1043    1055
1040        RY      15      12      11      10      10      11      12      15
            * DDM   ***** Preserved *****

1041        KK    DIV7
1042        KM        OFFLINE BASIN AT NORTH MOUNTAIN RIDGE   FLOWS ENTER BASIN OVER
1043        KM        30' WEIR SET AT 5.3' ABOVE THE CHANNEL BOTTOM
            *      1
1044        DT  BASIN6
1045        DI       0     363     487     563     645     844
1046        DQ       0       3      47      83     125     244
            * DDM   ***** Preserved *****

1047        KK  RTDIV7
1048        KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
1049        DR  BASIN6
            * DDM   ***** Preserved *****

1050        KK  RFDIV7
1051        KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
1052        KM     3.6 ACRE-FEETx43560/36x3600=1.2cfs
1053        RS       1    STOR       0
1054        SV       0     .01     3.6
1055        SQ       0     1.2     1.2
            * DDM   ***** Preserved *****

1056        KK   CDIV7
1057        KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
1058        HC       2
            * DDM   ***** Updated *****

1059        KK     454
1060        KM   SUB-BASIN 454
1061        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1062        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1063        KM     L = 1.23  Kb = .051  Adj. Slope =  163.0
1064        BA    .180
1065        LG    .300    .310   3.780    .560  14.000
1066        UC    .379    .395
1067        UA       0       5      16      30      65      77      84      90      94      97
1068        UA     100
            * DDM   ***** Preserved *****
1                                   HEC-1 INPUT                                          PAGE 28

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


1069        KK    C119
1070        KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 454 AND C119
            *      1       2
1071        HC       2
            * DDM   ***** Preserved *****

1072        KK    R454
1073        KM   ROUTE FLOW FROM C119 TO 415C
1074        RS       8    FLOW      -1
1075        RC    .045    .035    .045    6000    .005
1076        RX    1000    1010    1020    1036    1041    1057    1067    1077
1077        RY      15    14.5     .14      10      10     .14    14.5      15
            * DDM   ***** Updated *****

1078        KK     415
1079        KM   SUB-BASIN 415
1080        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1081        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
1082        KM     L = 2.10  Kb = .046  Adj. Slope =  266.0
1083        BA    .448
1084        LG    .310    .270   4.250    .480  15.000
1085        UC    .404    .387
1086        UA       0       5      16      30      65      77      84      90      94      97
1087        UA     100
            * DDM   ***** Preserved *****
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1088          KK   RT385
1089          KM   RETRIEVE FLOW FROM DIVERSION OF SUB-BASIN 385 INTO SUB-BASIN 415
1090          DR   SF385
              * DDM   ***** Preserved *****

1091          KK   RR385
1092          KM   ROUTING OF SPLIT FLOW FROM SUB-BASIN 385 TO SUB-BASIN 415
1093          RS       5    FLOW      -1
1094          RC    .045    .045    .045    5878    .024
1095          RX       0       1       2      14      19      31      32      33
1096          RY       4       4       4       0       0       4       4       4
              * DDM   ***** Preserved *****

1097          KK    415C
1098          KM   HYDROGRAPH COMBINATION OF SUB-BASINS 415, R454 & SPLIT FLOW FROM 385
1099          HC       3
              * DDM   ***** Preserved *****

1100          KK    R415
1101          KM   ROUTING OF FLOW FROM 415C TO 455C
1102          RS       3    FLOW      -1
1103          RC    .045    .045    .045    3900    .021
1104          RX       0       1       2      14      44      56      57      58
1105          RY       4       4       4       0       0       4       4       4
              * DDM   ***** Updated *****
1                                    HEC-1 INPUT                                    PAGE 29

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

1106          KK     455
1107          KM   SUB-BASIN 455
1108          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1109          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .993
1110          KM     L = 1.70  Kb = .041  Adj. Slope =  146.0
1111          BA   1.111
1112          LG    .270    .280   3.700    .640  24.000
1113          UC    .421    .204
1114          UA       0       5      16      30      65      77      84      90      94      97
1115          UA     100
              * DDM   ***** Preserved *****

1116          KK    D455
1117          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
1118          KM   DETENTION/RETENTION BASINS LOCATED WITHIN LAS SENDAS ADDENDUM III
1119          KM   FOR BASIN #: 30      34      43      47&58
1120          KM        MAXIMUM VOLUME DIVERSION = 74.1 acre-feet
              *      1
1121          DT   BS455    74.1
1122          DI       0   10000
1123          DQ       0   10000
              * DDM   ***** Preserved *****

1124          KK   RT455
1125          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
1126          DR   BS455
              * DDM   ***** Preserved *****

1127          KK   SR455
1128          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
1129          KM    74.1 ACRE-FEETx43560/36x3600=25cfs
1130          RS       1    STOR       0
1131          SV       0     .01    74.1
1132          SQ       0      25      25
              * DDM   ***** Preserved *****

1133          KK    C455
1134          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 455 AND DIVERTED BASIN STORAGE OF 455
1135          HC       2
              * DDM   ***** Preserved *****

1136          KK    455C
1137          KM  HYDROGRAPH COMBINATION OF 420C, R415 AND C455
              *      1       2
1138          HC       3
              * DDM   ***** Preserved *****

1139          KK   SR440
1140          KM   SPOOK HILL FRS PLANS DATED 6/15/77
1141          KM   OUTLET PIPE=7'x7.5'RCBC; L=70 INLET INV.=1566; OUTLET INV.=1566
1142          KM   EMERGENCY SPILLWAY ELEV.=1582; PRINCIPLE SPILLWAY ELEV.=1577.5
1143          KM   STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 200 ACRE-FEET
1144          RS       1    STOR       0
1145          SV       0      10     100     300     500     680
1                                    HEC-1 INPUT                                    PAGE 30

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

1146          SQ       0     640     720     780     825     860
1147          SE      66    77.5      79    80.2    81.2      82
              * DDM   ***** Preserved *****

1148          KK   RR455
1149          KM   ROUTE FLOW FROM SPOOK HILL FRS TO SUB-BASIN 462
1150          RS      10    FLOW      -1
1151          RC    .035    .025    .035    9200    .002
1152          RX       0       1       2      28      58      84      85      86
1153          RY    13.5    13.5    13.5       0       0    13.5    13.5    13.5
              * DDM   ***** Updated *****

1154          KK     456
1155          KM   SUB-BASIN 456
1156          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1157          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
1158          KM     L =  .94  Kb = .045  Adj. Slope =  315.0
1159          BA    .260
1160          LG    .300    .380   5.600    .200  12.000
1161          UC    .217    .139
1162          UA       0       5      16      30      65      77      84      90      94      97
1163          UA     100
              * DDM   ***** Preserved *****
```

```
1164        KK    DIV1
1165        KM        DIVERT FLOW INTO OFFLINE DETENTION BASIN
1166        KM        WEIR FOR BASIN SET AT 4 FEET ABOVE CHANNEL BOTTOM
            *      1
1167        DT  BASIN1
1168        DI       0    11.1   127.9   234.4   577.7   789.9  1025.5  1280.9  1555.7
1169        DQ       0       0       0    47.7     248   381.8   533.6   701.5     884
            * DDM   ***** Preserved *****

1170        KK    DIV2
1171        KM        SPLIT OUT FLOW FOR WASHES THAT FLOW TO THE SOUTH FROM
1172        KM        WASHES THAT DRAIN TO THE WES, SOUTHERN WASHES FED BY 30" & 24" PIPE
1173        DT    WA30
1174        DI       0    11.1   127.9   189.6   329.7     408   491.9   579.4   671.7
1175        DQ       0    11.1    38.4    48.2      63    69.5      76      81      86
            * DDM   ***** Preserved *****

1176        KK    R456
1177        KM        ROUTE FLOW FROM SUB-BASIN 51 TO C101
1178        RS       2    FLOW      -1
1179        RC     .05    .035     .05    3800    .044
1180        RX    1000    1010    1020    1036    1041    1057    1067    1077
1181        RY   14.88   14.44      14      10      10      14   14.44   14.88
            * DDM   ***** Updated *****

1182        KK     457
1183        KM   SUB-BASIN 457
1184        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1185        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1186        KM     L = 1.01  Kb = .045  Adj. Slope =  308.8
1187        BA    .190
```



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

1188        LG    .270    .330   3.950    .460   6.000
1189        UC    .237    .195
1190        UA       0       5      16      30      65      77      84      90      94      97
1191        UA     100
            * DDM   ***** Preserved *****

1192        KK    C101
1193        KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 50 AND 51
1194        HC       2
            * DDM   ***** Preserved *****

1195        KK    DIV3
1196        KM        RESERVOIR AT THE EDGE OF THE PROPERTY   FLOW FROM CHANNEL
1197        KM        DIVERTED  INTO OFFLINE BASIN A 25' WEIR SET AT ELEVATION 1808 FT
            *      1
1198        DT  BASIN2
1199        DI       0      36      70     110     180   313.5     402   500.9
1200        DQ       0       0       0       0       0    67.5     124   190.9
            * DDM   ***** Preserved *****

1201        KK  RTDIV3
1202        KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
1203        DR  BASIN2
            * DDM   ***** Preserved *****

1204        KK  RFDIV3
1205        KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
1206        KM     5.0 ACRE-FEETx43560/36x3600=1.7cfs
1207        RS       1    STOR       0
1208        SV       0     .01       5
1209        SQ       0     1.7     1.7
            * DDM   ***** Preserved *****

1210        KK   CDIV3
1211        KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
1212        HC       2
            * DDM   ***** Preserved *****

1213        KK    R101
1214        KM        ROUTE FLOW FROM SUBBASIN C101 TO C103
1215        RS       1    FLOW      -1
1216        RC     .05    .035     .05    1450     .05
1217        RX    1000    1010    1020    1036    1041    1057    1067    1077
1218        RY      15    14.5      14      10      10      14    14.5      15
            * DDM   ***** Updated *****

1219        KK     458
1220        KM   SUB-BASIN 458
1221        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1222        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1223        KM     L =  .76  Kb = .048  Adj. Slope =  299.0
1224        BA    .190
1225        LG    .290    .330   5.800    .190   6.000
1226        UC    .204    .131
1227        UA       0       5      16      30      65      77      84      90      94      97
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LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1228        UA     100
            * DDM   ***** Preserved *****

1229        KK    C103
1230        KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 55 AND C101
1231        HC       2
            * DDM   ***** Preserved *****

1232        KK    R103
1233        KM        ROUTE FLOW FROM SUBBASIN C103 TO C106
1234        RS       1    FLOW      -1
1235        RC     .05    .035     .05     900     .03
1236        RX    1000    1010    1020    1030    1050    1060    1070    1080
1237        RY   13.16   12.83    12.5      10      10    12.5   12.83   13.16
            * DDM   ***** Preserved *****

1238        KK    RT30
1239        KM        RETRIEVE DIVERTED FLOW FOR WASH BELOW 30 INCH PIPE
1240        DR    WA30
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            * DDM   ***** Preserved *****

1241        KK     R30
1242        KM        ROUTE FLOW FROM WASH DIVERSION TO COMBINE C52
1243        RS       1    FLOW      -1
1244        RC     .05    .035     .05    1630     .05
1245        RX    1000    1010    1020    1036    1041    1057    1067    1077
1246        RY      15    14.5      14      10      10      14    14.5      15
            * DDM   ***** Preserved *****

1247        KK    RTB1
1248        KM        RETRIEVE DIVERTED FLOW FROM BASIN 1
            *      1       2
1249        DR  BASIN1
            * DDM   ***** Preserved *****

1250        KK      B1
1251        KM        ROUTE FLOW THROUGH OFFLINE DETENTION BASIN
1252        KM        FLOW OUTLETS THROUGH A 30 INCH OUTLET PIPE
            *      1       2
1253        RS       1    ELEV       0
1254        SV              .7     1.4     2.3     2.7     3.2
1255        SQ       0       5      16      28    32.5      37
1256        SE       0       1       2       3     3.5       4
            * DDM   ***** Preserved *****

1257        KK     RB1
1258        KM        ROUTE FLOW FROM BASIN DIVERSION TO COMBINE C52
1259        RS       3    FLOW      -1
1260        RC     .05    .035     .05    1720     .05
1261        RX    1000    1010    1020    1036    1041    1057    1067    1077
1262        RY      15    14.5      14      10      10      14    14.5      15
            * DDM   ***** Preserved *****
1                                   HEC-1 INPUT                                                    PAGE 33

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


1263        KK    CDIV
1264        KM        COMBINE FLOWS FROM WA30 AND BASIN 1
1265        HC       2     .12
            * DDM   ***** Updated *****

1266        KK     459
1267        KM   SUB-BASIN 459
1268        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1269        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
1270        KM     L =  .35  Kb = .052  Adj. Slope =  251.6
1271        BA    .030
1272        LG    .220    .300   3.330    .710   8.000
1273        UC    .162    .157
1274        UA       0       5      16      30      65      77      84      90      94      97
1275        UA     100
            * DDM   ***** Preserved *****

1276        KK     C52
1277        KM        COMBINE FLOWS FROM SUB-BASIN 52 WA30 AND BASIN 1
1278        HC       2
            * DDM   ***** Preserved *****

1279        KK     R52
1280        KM        ROUTE FLOW FROM SUBBASIN 52 TO C102
1281        RS       2    FLOW      -1
1282        RC     .05    .035     .05    2000     .05
1283        RX    1000    1010    1020    1036    1041    1057    1067    1077
1284        RY      15    14.5      14      10      10      14    14.5      15
            * DDM   ***** Updated *****

1285        KK     460
1286        KM   SUB-BASIN 460
1287        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1288        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1289        KM     L =  .62  Kb = .058  Adj. Slope =  194.0
1290        BA    .140
1291        LG    .250    .260   3.740    .690  27.000
1292        UC    .242    .160
1293        UA       0       5      16      30      65      77      84      90      94      97
1294        UA     100
            * DDM   ***** Preserved *****

1295        KK    C102
1296        KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 52 AND 53
1297        HC       2
            * DDM   ***** Preserved *****

1298        KK  BASIN3
1299        KM        RESERVOIR AT CLUBHOUSE LOCATION 1-30 INCH PIPE AT OUTFALL
1300        KM        BOTTOM OF BASIN AT 6 FEET ABOVE 1795 ELEVATION
1301        RS       1    ELEV       0
1302        SA       0       0       0       0     .34    1.59    1.81    1.96    2.13     2.3
            *      0       0       0       0    1.14    3.25    5.52    9.23
1303        SQ       0      22      45    47.4      48      51      57      62      67      73
1                                   HEC-1 INPUT                                                    PAGE 34

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

1304        SE    1795  1797.5    1800  1800.4  1800.5    1801    1802    1803    1804  1805.5
            * DDM   ***** Preserved *****

1305        KK      R3
1306        KM        ROUTE FLOW FROM C102 to C106
1307        RS       4    FLOW      -1
1308        RC     .05     .03     .05    2750   .0375
1309        RX    1000    1010    1020    1052    1086    1118    1128    1138
1310        RY    19.2    18.4      18      10      10      18    18.4    19.2
            * DDM   ***** Updated *****

1311        KK     461
1312        KM   SUB-BASIN 461
1313        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1314        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1315        KM     L =  .83  Kb = .052  Adj. Slope =  181.0
1316        BA    .120
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1317        LG    .270    .250   4.250    .450  21.000
1318        UC    .271    .250
1319        UA       0       5      16      30      65      77      84      90      94      97
1320        UA     100
            * DDM   ***** Preserved *****

1321        KK    C104
1322        KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 54 AND R102
1323        HC       2
            * DDM   ***** Preserved *****

1324        KK    C106
1325        KM        COMBINE HYDROGRAPHS FROM SUB-BASIN C103 AND C104
1326        HC       2
            * DDM   ***** Preserved *****

1327        KK    R106
1328        KM        ROUTE FLOW FROM C106 TO C49
1329        RS       2    FLOW      -1
1330        RC     .05    .035     .05    3950    .033
1331        RX    1000    1010    1020    1030    1050    1060    1070    1080
1332        RY   13.16   12.83    12.5      10      10    12.5   12.83   13.16
            * DDM   ***** Updated *****

1333        KK     462
1334        KM   SUB-BASIN 462
1335        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1336        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
1337        KM     L =  .97  Kb = .045  Adj. Slope =  297.7
1338        BA    .301
1339        LG    .300    .330   5.300    .240  12.000
1340        UC    .225    .137
1341        UA       0       5      16      30      65      77      84      90      94      97
1342        UA     100
            * DDM   ***** Preserved *****
1                                   HEC-1 INPUT                                          PAGE 35

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

1343        KK     C56
1344        KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 56 AND C106
            *      1       2
1345        HC       2
            * DDM   ***** Updated *****

1346        KK     480
1347        KM   SUB-BASIN 480
1348        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1349        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
1350        KM     L = 1.21  Kb = .042  Adj. Slope =  165.0
1351        BA    .731
1352        LG    .270    .270   3.580    .730  27.000
1353        UC    .325    .148
1354        UA       0       5      16      30      65      77      84      90      94      97
1355        UA     100
            * DDM   ***** Preserved *****

1356        KK    D480
1357        KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
1358        KM   DETENTION/RETENTION BASINS LOCATED WITHIN LAS SENDAS ADDENDUM III
1359        KM   FOR BASIN #: 18 & 26
1360        KM        MAXIMUM VOLUME DIVERSION = 16.5 acre-feet
            *      1
1361        DT   BS480    16.5
1362        DI       0   10000
1363        DQ       0   10000
            * DDM   ***** Preserved *****

1364        KK   RT480
1365        KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
1366        DR   BS480
            * DDM   ***** Preserved *****

1367        KK   SR480
1368        KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
1369        KM    16.5 ACRE-FEETx43560/36x3600=5.5cfs
1370        RS       1    STOR       0
1371        SV       0     .01    16.5
1372        SQ       0     5.6     5.6
            * DDM   ***** Preserved *****

1373        KK    C480
1374        KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
1375        HC       2
            * DDM   ***** Preserved *****

1376        KK    480C
1377        KM   HYDROGRAPH COMBINATION FOR THE ENTIRE WATERSHED AT THE SALT RIVER
1378        HC       3    2.09
            * DDM   ***** Preserved *****
1                                   HEC-1 INPUT                                          PAGE 36

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

1379        KK   RR480
1380        KM   ROUTE FLOW FROM SUB-BASIN 480 TO SUB-BASIN 500
1381        RS       1    FLOW      -1
1382        RC    .025    .025    .025    6500     .05
1383        RX       0       1       2      28      58      84      85      86
1384        RY    13.5    13.5    13.5       0       0    13.5    13.5    13.5
            * DDM   ***** Updated *****

1385        KK     500
1386        KM   SUB-BASIN 500
1387        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1388        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
1389        KM     L = 2.77  Kb = .042  Adj. Slope =  286.8
1390        BA    .930
1391        LG    .350    .400   6.000    .170   9.000
1392        UC    .421    .333
1393        UA       0       3       5       8      12      20      43      75      90      96
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1394          UA     100
              * DDM   ***** Preserved *****

1395          KK    500C
1396          KM   HYDROGRAPH COMBINATION FOR THE ENTIRE WATERSHED AT THE SALT RIVER
1397          HC       2    2.84
1398          ZZ
```

SCHEMATIC DIAGRAM OF STREAM NETWORK

```
INPUT
 LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW
  NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

  45          10
               V
               V
  55         R10
               .
               .
  61           .          20
               .           .
               .           .
  71         C20.........
               .
               .
  74           .          40
               .           .
               .           .
  84           .           .          60
               .           .           .
               .           .           .
  94         60C.......................
               V
               V
  97        SR60
               V
               V
 106         R60
               V
               V
 112        RR60
               .
               .
 118           .          80
               .           .
               .           .
 128         80C............
               V
               V
 131         R80
               .
               .
 137           .         100
               .           .
               .           .
 147        100C............
               V
               V
 150        R100
               .
               .
 156           .         120
               .           .
               .           .
 166        120C............
               V
               V
 169        R120
               .
               .
 175           .         140
               .           .
               .           .
 185           .           .        150
               .           .          V
               .           .          V
 195           .           .       R150
               .           .          .
               .           .          .
 201           .           .          .         160
               .           .          .           .
               .           .          .           .
 211           .           .          .           .         180
               .           .          .           .           .
               .           .          .           .           .
 221        180C.............................................
               .
               .
 224           .         240
               .           V
               .           V
 234           .        R240
               .
               .
 241           .           .        210
               .           .          V
               .           .          V
 251           .           .       R210
               .           .          .
               .           .          .
 257           .           .          .         220
               .           .          .           .
               .           .          .           .
 267           .        220C.......................
               .           V
               .           V
 270           .        R220
               .
               .
 277           .           .        190
               .           .          V
               .           .          V
 287           .           .       R190
               .           .          .
               .           .          .
 293           .           .          .         200
               .           .          .           .
               .           .          .           .
 303           .        200C.......................
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```
                .          V
                .          V
306             .       R200
                .          .
                .          .
312          C180...........
                V
                V
315         SR180
                V
                V
324          R180
                .
                .
330             .        260
                .          .
                .          .
340          260C...........
                V
                V
343          R260
                .
                .
349             .        280
                .          .
                .          .
359          280C...........
                V
                V
362          R280
                .
                .
368             .        300
                .          .
                .          .
378          300C...........
                V
                V
381          R300
                V
                V
387         RR300
                .
                .
393             .        350
                .          .
                .          .
406             .          .------->   SF350
403             .       D350
                .          V
                .          V
409             .       350R
                .          .
                .          .
415             .          .        310
                .          .          .
                .          .          .
425             .       C310...........
                .          V
                .          V
428             .       R310
                .          .
                .          .
434             .          .        320
                .          .          .
                .          .          .
449             .          .          .------->   BS320
444             .          .       D320
                .          .          .
                .          .          .
454             .          .          .          .<-------   BS320
452             .          .          .      RT320
                .          .          .          V
                .          .          .          V
455             .          .          .      SR320
                .          .          .          .
                .          .          .          .
461          C320...................................
                .
                .
464             .        340
                .          .
                .          .
479             .          .------->   BS340
474             .       D340
                .          .
                .          .
484             .          .          .<-------   BS340
482             .          .      RT340
                .          .          V
                .          .          V
485             .          .      SR340
                .          .          .
                .          .          .
491          C340........................
                .
                .
496             .          .<-------   SF350
494             .      RT350
                .          V
                .          V
497             .      RR350
                .          .
                .          .
503             .          .        355
                .          .          .
                .          .          .
513             .       C355...........
                .          V
                .          V
516             .       R355
                .          .
                .          .
```

```
522          .           .         370
             .           .           V
             .           .           V
532          .           .        R370
             .           .           .
             .           .           .
538          .           .           .         360
             .           .           .           .
             .           .           .           .
552          .           .           .           .-------->   BS360
548          .           .           .        D360
             .           .           .           .
             .           .           .           .
557          .           .           .           .           .<-------   BS360
555          .           .           .           .       RT360
             .           .           .           .           V
             .           .           .           .           V
558          .           .           .           .       SR360
             .           .           .           .           .
             .           .           .           .           .
564       360C.............................................
             .
             .
567          .         395
             .           V
             .           V
577          .        R395
             .           .
             .           .
583          .           .         380
             .           .           .
             .           .           .
597          .           .           .-------->   BS380
593          .           .        D380
             .           .           .
             .           .           .
602          .           .           .           .<-------   BS380
600          .           .           .        RT380
             .           .           .           V
             .           .           .           V
603          .           .           .        SR380
             .           .           .           .
             .           .           .           .
609       380C...................................
             .
             .
612          .         390
             .           .
             .           .
626          .           .-------->   BS390
622          .        D390
             .           .
             .           .
631          .           .           .<-------   BS390
629          .           .        RT390
             .           .           V
             .           .           V
632          .           .        SR390
             .           .           .
             .           .           .
638          .        390C............
             .           V
             .           V
641          .       RR390
             .           .
             .           .
647          .           .         400
             .           .           .
             .           .           .
661          .           .           .-------->   BS400
657          .           .        D400
             .           .           .
             .           .           .
666          .           .           .           .<-------   BS400
664          .           .           .        RT400
             .           .           .           V
             .           .           .           V
667          .           .           .        SR400
             .           .           .           .
             .           .           .           .
673          .           .        C400............
             .           .           .
             .           .           .
676       400C........................
             .
             .
679          .         385
             .           .
             .           .
691          .           .-------->   SF385
689          .        D385
             .           V
             .           V
694          .        385R
             .           .
             .           .
700          .           .         420
             .           .           .
             .           .           .
714          .           .           .-------->   BS420
710          .           .        D420
             .           .           .
             .           .           .
719          .           .           .           .<-------   BS420
717          .           .           .        RT420
             .           .           .           V
             .           .           .           V
720          .           .           .        SR420
             .           .           .           .
             .           .           .           .
726       420C....................................
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729          .        440
             .          V
             .          V
739          .        R70
             .          .
             .          .
745          .          .        441
             .          .          .
             .          .          .
755          .      C108............
             .          .
             .          .
760          .          .------->   SPLIT
758          .      DIV4
             .         V
             .         V
763          .      R108
             .          .
             .          .
769          .          .        442
             .          .          .
             .          .          .
779          .       C67............
             .          .
             .          .
785          .          .------->  BASIN4
782          .      DIV6
             .          .
             .          .
790          .          .          .<-------  BASIN4
788          .          .     RTDIV6
             .          .          V
             .          .          V
791          .          .     RFDIV6
             .          .          .
             .          .          .
797          .     CDIV6............
             .          .
             .          .
800          .          .        443
             .          .          .
             .          .          .
813          .          .          .------->   WSH66
810          .          .      DIV66
             .          .          V
             .          .          V
816          .          .       R113
             .          .          .
             .          .          .
822          .      C114............
             .          .
             .          .
825          .          .        444
             .          .          V
             .          .          V
835          .          .        R58
             .          .          .
             .          .          .
841          .          .          .         445
             .          .          .           .
             .          .          .           .
851          .          .       C107............
             .          .          V
             .          .          V
854          .          .       R107
             .          .          .
             .          .          .
862          .          .          .          .<-------   SPLIT
860          .          .          .       RTB2
             .          .          .          V
             .          .          .          V
863          .          .          .     RSPLIT
             .          .          .          .
             .          .          .          .
869          .          .          .          .         446
             .          .          .          .           .
             .          .          .          .           .
879          .          .       C109........................
             .          .          .
             .          .          .
885          .          .          .-------> WSH404
882          .          .       DIV5
             .          .          V
             .          .          V
888          .          .       R109
             .          .          .
             .          .          .
894          .          .          .         447
             .          .          .           .
             .          .          .           .
906          .          .          .           .          .<-------  WSH404
904          .          .          .           .      RT404
             .          .          .           .          V
             .          .          .           .          V
907          .          .          .           .       R404
             .          .          .           .          .
             .          .          .           .          .
913          .          .       C110........................
             .          .          V
             .          .          V
916          .          .       R110
             .          .          .
             .          .          .
922          .      C115............
             .         V
             .         V
925          .      R115
             .          .
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932          .          .        448
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942          .          .          .         449
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952          C6364............
                V
                V
955          R6364
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961                450
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971                   451
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983                      .<-------   WSH66
981                   RT66
                         .
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984                      .         452
                         .           .
                         .           .
994                   C6465............
                         V
                         V
997                   R6566
                         .
                         .
1003         C116.................................
                V
                V
1006         BASIN5
                V
                V
1013         R116
                .
                .
1019               453
                   .
                   .
1029         C117............
                .
                .
1032      C118............
             V
             V
1035      R118
             .
             .
1044         .-------> BASIN6
1041      DIV7
             .
             .
1049            .<-------  BASIN6
1047         RTDIV7
                V
                V
1050         RFDIV7
                .
                .
1056      CDIV7............
             .
             .
1059            454
                .
                .
1069      C119............
             V
             V
1072      R454
             .
             .
1078            415
                .
                .
1090            .          .<-------   SF385
1088            .       RT385
                .          V
                .          V
1091            .       RR385
                .          .
                .          .
1097      415C........................
             V
             V
1100      R415
             .
             .
1106            455
                .
                .
1121            .------->   BS455
1116         D455
                .
                .
1126            .          .<-------   BS455
1124            .       RT455
                .          V
                .          V
1127            .       SR455
                .          .
                .          .
1133         C455............
                .
                .
1136    455C........................
           V
           V
1139    SR440
           V
           V
1148    RR455
           .
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1154          .        456
              .          .
              .          .
1167          .          .-------> BASIN1
1164          .      DIV1
              .          .
              .          .
1173          .          .------->   WA30
1170          .      DIV2
              .        V
              .        V
1176          .      R456
              .          .
              .          .
1182          .          .        457
              .          .          .
              .          .          .
1192          .      C101............
              .          .
              .          .
1198          .          .-------> BASIN2
1195          .      DIV3
              .          .
              .          .
1203          .          .          .<------- BASIN2
1201          .          .     RTDIV3
              .          .          V
              .          .          V
1204          .          .     RFDIV3
              .          .          .
              .          .          .
1210          .     CDIV3............
              .        V
              .        V
1213          .      R101
              .          .
              .          .
1219          .          .        458
              .          .          .
              .          .          .
1229          .      C103............
              .        V
              .        V
1232          .      R103
              .          .
              .          .
1240          .          .          .<-------   WA30
1238          .          .       RT30
              .          .          V
              .          .          V
1241          .          .       R30
              .          .          .
              .          .          .
1249          .          .          .          .<------- BASIN1
1247          .          .          .       RTB1
              .          .          .          V
              .          .          .          V
1250          .          .          .         B1
              .          .          .          V
              .          .          .          V
1257          .          .          .        RB1
              .          .          .          .
              .          .          .          .
1263          .          .       CDIV............
              .          .          .
              .          .          .
1266          .          .          .        459
              .          .          .          .
              .          .          .          .
1276          .          .       C52............
              .          .          V
              .          .          V
1279          .          .       R52
              .          .          .
              .          .          .
1285          .          .          .        460
              .          .          .          .
              .          .          .          .
1295          .          .       C102............
              .          .          V
              .          .          V
1298          .          .     BASIN3
              .          .          V
              .          .          V
1305          .          .        R3
              .          .          .
              .          .          .
1311          .          .          .        461
              .          .          .          .
              .          .          .          .
1321          .          .       C104............
              .          .          .
              .          .          .
1324          .      C106............
              .        V
              .        V
1327          .      R106
              .          .
              .          .
1333          .          .        462
              .          .          .
              .          .          .
1343          .       C56............
              .          .
              .          .
1346          .          .        480
              .          .          .
              .          .          .
1361          .          .          .-------> BS480
1356          .          .       D480
              .          .          .
              .          .          .
1366          .          .          .          .<------- BS480
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1364          .          .          .       RT480
              .          .          .           V
              .          .          .           V
1367          .          .          .       SR480
              .          .          .           .
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1373          .          .       C480............
              .          .          .
              .          .          .
1376       480C......................
              V
              V
1379      RR480
              .
              .
1385          .        500
              .          .
              .          .
1395       500C...........
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(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

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

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	10	951.	12.27	114.	31.	15.	.70		
+	ROUTED TO	R10	826.	12.60	114.	31.	15.	.70		
+	HYDROGRAPH AT	20	959.	12.43	128.	32.	16.	1.12		
+	2 COMBINED AT	C20	1635.	12.53	240.	63.	30.	1.82		
+	HYDROGRAPH AT	40	2582.	12.30	252.	66.	32.	2.23		
+	HYDROGRAPH AT	60	1553.	12.40	228.	61.	29.	1.75		
+	3 COMBINED AT	60C	5014.	12.37	708.	188.	90.	5.80		
+	ROUTED TO	SR60	92.	14.47	92.	89.	70.	5.80		
+	ROUTED TO	R60	92.	14.53	92.	89.	70.	5.80		
+	ROUTED TO	RR60	92.	14.63	92.	89.	70.	5.80		
+	HYDROGRAPH AT	80	1868.	12.27	179.	46.	22.	1.48		
+	2 COMBINED AT	80C	1942.	12.27	266.	134.	92.	1.48		
+	ROUTED TO	R80	1919.	12.27	266.	134.	92.	1.48		
+	HYDROGRAPH AT	100	404.	12.20	58.	15.	7.	.48		
+	2 COMBINED AT	100C	2300.	12.27	321.	148.	99.	1.96		
	ROUTED TO	R100	2292.	12.30	321.	148.	99.	1.96		
+	HYDROGRAPH AT	120	3232.	12.27	326.	88.	42.	2.20		
+	2 COMBINED AT	120C	5469.	12.27	636.	229.	140.	4.16		
+	ROUTED TO	R120	5397.	12.30	636.	229.	140.	4.16		
+	HYDROGRAPH AT	140	632.	12.13	64.	17.	8.	.60		
+	HYDROGRAPH AT	150	135.	13.20	47.	13.	6.	.41		
+	ROUTED TO	R150	132.	13.67	47.	13.	6.	.41		
+	HYDROGRAPH AT	160	217.	12.40	35.	9.	4.	.37		
+	HYDROGRAPH AT	180	785.	12.37	90.	23.	11.	1.00		
+	5 COMBINED AT	180C	6707.	12.30	856.	286.	168.	6.54		
+	HYDROGRAPH AT	240	846.	12.33	107.	27.	13.	1.04		
+	ROUTED TO	R240	824.	12.40	107.	27.	13.	1.04		
+	HYDROGRAPH AT	210	870.	12.20	80.	21.	10.	.58		
+	ROUTED TO	R210	799.	12.30	80.	21.	10.	.58		
+	HYDROGRAPH AT	220	1057.	12.17	93.	23.	11.	.69		
+	3 COMBINED AT	220C	2300.	12.27	276.	71.	34.	2.31		
	ROUTED TO	R220	2250.	12.33	276.	71.	34.	2.31		
+	HYDROGRAPH AT	190	1403.	12.17	116.	31.	15.	.92		
+	ROUTED TO	R190	1272.	12.30	116.	31.	15.	.92		
+	HYDROGRAPH AT	200	1399.	12.17	115.	30.	15.	.92		

+	3 COMBINED AT	200C	4387.	12.27	499.	130.	63.	4.14
+	ROUTED TO	R200	4364.	12.30	499.	130.	63.	4.14
	2 COMBINED AT	C180	10935.	12.30	1336.	408.	228.	10.68
+	ROUTED TO	SR180	141.	16.87	141.	140.	115.	10.68
+	ROUTED TO	R180	141.	16.90	141.	140.	114.	10.68
+	HYDROGRAPH AT	260	418.	12.10	43.	12.	6.	.27
+	2 COMBINED AT	260C	528.	12.13	179.	151.	121.	.27
+	ROUTED TO	R260	510.	12.20	179.	151.	121.	.27
+	HYDROGRAPH AT	280	478.	12.10	42.	12.	6.	.30
+	2 COMBINED AT	280C	942.	12.13	218.	161.	126.	.57
+	ROUTED TO	R280	906.	12.20	218.	161.	126.	.57
+	HYDROGRAPH AT	300	875.	12.20	109.	29.	14.	.99
+	2 COMBINED AT	300C	1766.	12.20	324.	188.	139.	1.56
+	ROUTED TO	R300	1730.	12.27	324.	188.	139.	1.56
+	ROUTED TO	RR300	1696.	12.30	324.	188.	138.	1.56
+	HYDROGRAPH AT	350	1192.	12.20	103.	27.	13.	.97
+	DIVERSION TO	SF350	715.	12.20	62.	16.	8.	.97
+	HYDROGRAPH AT	D350	477.	12.20	41.	11.	5.	.97
	ROUTED TO	350R	441.	12.37	41.	11.	5.	.97
+	HYDROGRAPH AT	310	376.	12.33	49.	12.	6.	.56
+	2 COMBINED AT	C310	812.	12.33	89.	23.	11.	.94
+	ROUTED TO	R310	730.	12.60	89.	23.	11.	.94
+	HYDROGRAPH AT	320	965.	12.20	123.	34.	17.	.97
+	DIVERSION TO	BS320	377.	11.97	21.	6.	3.	.97
+	HYDROGRAPH AT	D320	965.	12.20	109.	28.	14.	.97
+	HYDROGRAPH AT	RT320	377.	11.97	21.	6.	3.	.97
+	ROUTED TO	SR320	4.	4.13	4.	4.	3.	.97
+	4 COMBINED AT	C320	2531.	12.30	519.	241.	165.	3.47
+	HYDROGRAPH AT	340	1471.	12.17	186.	55.	26.	1.45
+	DIVERSION TO	BS340	1471.	12.17	104.	28.	14.	1.45
+	HYDROGRAPH AT	D340	1199.	12.33	97.	27.	13.	1.45
+	HYDROGRAPH AT	RT340	1471.	12.17	104.	28.	14.	1.45
+	ROUTED TO	SR340	19.	9.00	19.	19.	14.	1.45
+	3 COMBINED AT	C340	3691.	12.33	628.	285.	190.	4.92
	HYDROGRAPH AT	RT350	715.	12.20	62.	16.	8.	.97
+	ROUTED TO	RR350	659.	12.37	62.	16.	8.	.97
+	HYDROGRAPH AT	355	500.	12.33	69.	18.	9.	.66
+	2 COMBINED AT	C355	1144.	12.33	130.	34.	16.	1.24

+	ROUTED TO	R355	1036.	12.60	130.	34.	16.	1.24
+	HYDROGRAPH AT	370	588.	12.30	79.	21.	10.	.67
	ROUTED TO	R370	524.	12.63	79.	21.	10.	.67
+	HYDROGRAPH AT	360	504.	12.23	84.	25.	12.	.67
+	DIVERSION TO	BS360	504.	12.23	53.	14.	7.	.67
+	HYDROGRAPH AT	D360	306.	12.63	38.	11.	5.	.67
+	HYDROGRAPH AT	RT360	504.	12.23	53.	14.	7.	.67
+	ROUTED TO	SR360	10.	9.83	10.	10.	7.	.67
+	5 COMBINED AT	360C	4447.	12.60	870.	355.	227.	7.50
+	HYDROGRAPH AT	395	182.	12.23	25.	7.	3.	.20
+	ROUTED TO	R395	157.	12.67	25.	7.	3.	.20
+	HYDROGRAPH AT	380	666.	12.27	98.	26.	13.	.97
+	DIVERSION TO	BS380	666.	12.27	56.	14.	7.	.97
+	HYDROGRAPH AT	D380	472.	12.57	46.	12.	6.	.97
+	HYDROGRAPH AT	RT380	666.	12.27	56.	14.	7.	.97
+	ROUTED TO	SR380	10.	11.33	10.	10.	7.	.97
+	4 COMBINED AT	380C	5003.	12.60	943.	382.	242.	8.67
+	HYDROGRAPH AT	390	463.	12.03	33.	10.	5.	.24
	DIVERSION TO	BS390	95.	11.73	6.	2.	1.	.24
+	HYDROGRAPH AT	D390	463.	12.03	30.	8.	4.	.24
+	HYDROGRAPH AT	RT390	95.	11.73	6.	2.	1.	.24
+	ROUTED TO	SR390	1.	.90	1.	1.	1.	.24
+	2 COMBINED AT	390C	464.	12.03	31.	9.	5.	.24
+	ROUTED TO	RR390	367.	12.30	31.	9.	5.	.24
+	HYDROGRAPH AT	400	351.	12.23	47.	13.	6.	.62
+	DIVERSION TO	BS400	262.	12.10	10.	3.	1.	.62
+	HYDROGRAPH AT	D400	351.	12.23	39.	10.	5.	.62
+	HYDROGRAPH AT	RT400	262.	12.10	10.	3.	1.	.62
+	ROUTED TO	SR400	2.	8.70	2.	2.	1.	.62
+	2 COMBINED AT	C400	353.	12.23	41.	12.	6.	.62
+	3 COMBINED AT	400C	5321.	12.60	1010.	401.	252.	9.53
+	HYDROGRAPH AT	385	782.	12.23	87.	24.	12.	.65
+	DIVERSION TO	SF385	313.	12.23	35.	10.	5.	.65
+	HYDROGRAPH AT	D385	469.	12.23	52.	14.	7.	.65
	ROUTED TO	385R	410.	12.50	52.	14.	7.	.65
+	HYDROGRAPH AT	420	752.	12.20	92.	26.	12.	.85
+	DIVERSION TO	BS420	269.	11.97	15.	4.	2.	.85
+	HYDROGRAPH AT	D420	752.	12.20	83.	22.	10.	.85

+	HYDROGRAPH AT RT420	269.	11.97	15.	4.	2.	.85
+	ROUTED TO SR420	13.	11.03	12.	4.	2.	.85
	4 COMBINED AT 420C	5988.	12.57	1139.	435.	270.	10.77
+	HYDROGRAPH AT 440	180.	12.03	12.	3.	2.	.08
+	ROUTED TO R70	176.	12.07	12.	3.	2.	.08
+	HYDROGRAPH AT 441	16.	12.03	1.	0.	0.	.01
+	2 COMBINED AT C108	191.	12.07	14.	4.	2.	.09
+	DIVERSION TO SPLIT	96.	12.07	7.	2.	1.	.09
+	HYDROGRAPH AT DIV4	96.	12.07	7.	2.	1.	.09
+	ROUTED TO R108	88.	12.13	7.	2.	1.	.09
+	HYDROGRAPH AT 442	102.	12.10	9.	2.	1.	.10
+	2 COMBINED AT C67	187.	12.10	15.	4.	2.	.19
+	DIVERSION TO BASIN4	115.	12.10	6.	1.	1.	.19
+	HYDROGRAPH AT DIV6	72.	12.10	10.	3.	1.	.19
+	HYDROGRAPH AT RTDIV6	115.	12.10	6.	1.	1.	.19
+	ROUTED TO RFDIV6	1.	11.90	1.	1.	1.	.19
+	2 COMBINED AT CDIV6	74.	12.10	10.	4.	2.	.19
+	HYDROGRAPH AT 443	148.	12.07	14.	4.	2.	.08
	DIVERSION TO WSH66	78.	11.90	12.	3.	2.	.08
+	HYDROGRAPH AT DIV66	70.	12.07	3.	1.	0.	.08
+	ROUTED TO R113	69.	12.07	3.	1.	0.	.08
+	2 COMBINED AT C114	140.	12.07	13.	4.	2.	.27
+	HYDROGRAPH AT 444	82.	12.03	5.	1.	1.	.04
+	ROUTED TO R58	78.	12.07	5.	1.	1.	.04
+	HYDROGRAPH AT 445	296.	12.03	18.	5.	2.	.19
+	2 COMBINED AT C107	368.	12.03	22.	6.	3.	.23
+	ROUTED TO R107	368.	12.07	22.	6.	3.	.23
+	HYDROGRAPH AT RTB2	96.	12.07	7.	2.	1.	.09
+	ROUTED TO RSPLIT	95.	12.07	7.	2.	1.	.09
+	HYDROGRAPH AT 446	65.	12.03	6.	2.	1.	.04
+	3 COMBINED AT C109	523.	12.07	35.	9.	4.	.27
+	DIVERSION TO WSH404	35.	11.73	7.	2.	1.	.27
+	HYDROGRAPH AT DIV5	488.	12.07	27.	7.	3.	.27
+	ROUTED TO R109	472.	12.10	27.	7.	3.	.27
	HYDROGRAPH AT 447	138.	12.07	12.	4.	2.	.09
+	HYDROGRAPH AT RT404	35.	11.73	7.	2.	1.	.27
+	ROUTED TO R404	35.	11.90	7.	2.	1.	.27
+	3 COMBINED AT C110	637.	12.07	46.	13.	6.	.36

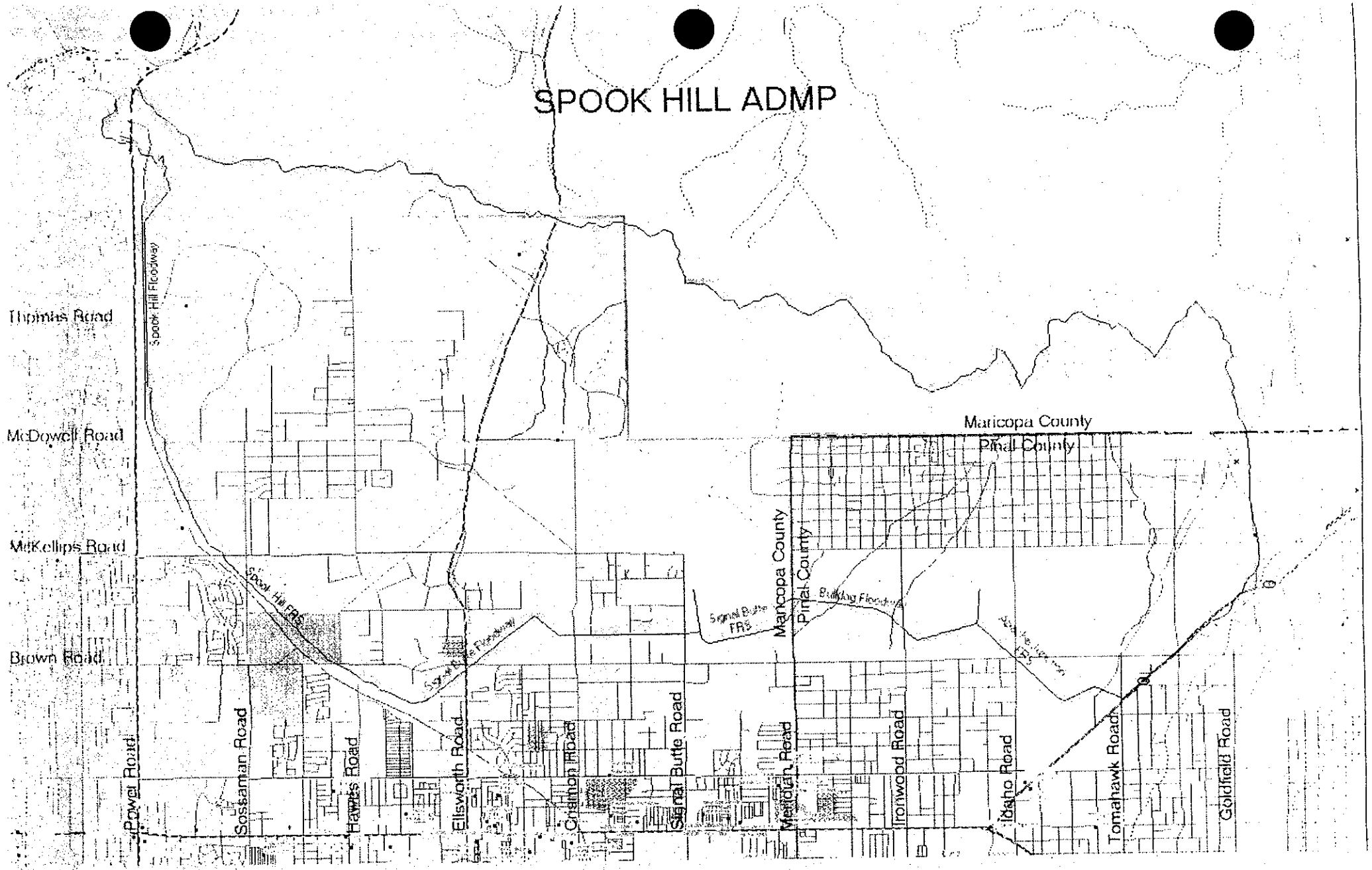
+	ROUTED TO R110	635.	12.10	46.	13.	6.	.36
+	2 COMBINED AT C115	767.	12.10	59.	17.	8.	.63
	ROUTED TO R115	770.	12.10	59.	17.	8.	.63
+	HYDROGRAPH AT 448	88.	12.03	6.	2.	1.	.05
+	HYDROGRAPH AT 449	80.	12.03	5.	1.	1.	.05
+	2 COMBINED AT C6364	166.	12.03	11.	3.	1.	.09
+	ROUTED TO R6364	137.	12.17	11.	3.	1.	.09
+	HYDROGRAPH AT 450	61.	12.20	6.	2.	1.	.07
+	HYDROGRAPH AT 451	18.	12.17	2.	1.	0.	.03
+	HYDROGRAPH AT RT66	78.	11.90	12.	3.	2.	.08
+	HYDROGRAPH AT 452	62.	12.03	4.	1.	1.	.04
+	2 COMBINED AT C6465	140.	12.03	16.	4.	2.	.04
+	ROUTED TO R6566	135.	12.10	16.	4.	2.	.04
+	4 COMBINED AT C116	341.	12.17	35.	9.	4.	.23
+	ROUTED TO BASIN5	152.	12.47	35.	9.	4.	.23
+	ROUTED TO R116	150.	12.53	35.	9.	4.	.23
+	HYDROGRAPH AT 453	62.	12.10	7.	2.	1.	.06
+	2 COMBINED AT C117	169.	12.50	41.	11.	5.	.29
	2 COMBINED AT C118	855.	12.10	99.	28.	14.	.92
+	ROUTED TO R118	845.	12.10	99.	28.	14.	.92
+	DIVERSION TO BASIN6	244.	12.10	10.	2.	1.	.92
+	HYDROGRAPH AT DIV7	600.	12.10	89.	25.	13.	.92
+	HYDROGRAPH AT RTDIV7	244.	12.10	10.	2.	1.	.92
+	ROUTED TO RFDIV7	1.	11.97	1.	1.	1.	.92
+	2 COMBINED AT CDIV7	601.	12.10	90.	26.	13.	.92
+	HYDROGRAPH AT 454	157.	12.17	21.	6.	3.	.18
+	2 COMBINED AT C119	750.	12.13	110.	32.	16.	1.10
+	ROUTED TO R454	682.	12.40	110.	32.	16.	1.10
+	HYDROGRAPH AT 415	412.	12.17	55.	16.	7.	.45
+	HYDROGRAPH AT RT385	313.	12.23	35.	10.	5.	.65
+	ROUTED TO RR385	285.	12.40	35.	10.	5.	.65
+	3 COMBINED AT 415C	1254.	12.37	196.	56.	28.	1.55
+	ROUTED TO R415	1225.	12.43	196.	56.	28.	1.55
+	HYDROGRAPH AT 455	1346.	12.13	142.	43.	21.	1.11
	DIVERSION TO BS455	1346.	12.13	137.	37.	18.	1.11
+	HYDROGRAPH AT D455	55.	12.77	16.	6.	3.	1.11
+	HYDROGRAPH AT RT455	1346.	12.13	137.	37.	18.	1.11
+	ROUTED TO SR455	25.	10.47	25.	25.	18.	1.11

2 COMBINED AT	C455	80.	12.77	41.	31.	21.	1.11
3 COMBINED AT	455C	6926.	12.53	1341.	511.	314.	13.43
ROUTED TO	SR440	806.	13.93	791.	511.	314.	13.43
ROUTED TO	RR455	806.	14.23	791.	511.	312.	13.43
HYDROGRAPH AT	456	468.	12.07	35.	10.	5.	.26
DIVERSION TO	BASIN1	184.	12.07	8.	2.	1.	.26
HYDROGRAPH AT	DIV1	284.	12.07	27.	8.	4.	.26
DIVERSION TO	WA30	58.	12.07	10.	3.	2.	.26
HYDROGRAPH AT	DIV2	226.	12.07	18.	4.	2.	.26
ROUTED TO	R456	213.	12.13	18.	4.	2.	.26
HYDROGRAPH AT	457	264.	12.07	20.	5.	3.	.19
2 COMBINED AT	C101	462.	12.10	38.	10.	5.	.45
DIVERSION TO	BASIN2	165.	12.10	7.	2.	1.	.45
HYDROGRAPH AT	DIV3	297.	12.10	30.	8.	4.	.45
HYDROGRAPH AT	RTDIV3	165.	12.10	7.	2.	1.	.45
ROUTED TO	RFDIV3	2.	11.90	2.	2.	1.	.45
2 COMBINED AT	CDIV3	299.	12.10	32.	9.	5.	.45
ROUTED TO	R101	297.	12.10	32.	9.	5.	.45
HYDROGRAPH AT	458	356.	12.03	25.	7.	3.	.19
2 COMBINED AT	C103	635.	12.07	56.	16.	8.	.64
ROUTED TO	R103	630.	12.07	56.	16.	8.	.64
HYDROGRAPH AT	RT30	58.	12.07	10.	3.	2.	.26
ROUTED TO	R30	57.	12.10	10.	3.	2.	.26
HYDROGRAPH AT	RTB1	184.	12.07	8.	2.	1.	.26
ROUTED TO	B1	37.	12.23	8.	2.	1.	.26
ROUTED TO	RB1	37.	12.30	8.	2.	1.	.26
2 COMBINED AT	CDIV	87.	12.20	17.	5.	3.	.12
HYDROGRAPH AT	459	44.	12.03	3.	1.	0.	.03
2 COMBINED AT	C52	114.	12.13	20.	6.	3.	.15
ROUTED TO	R52	113.	12.17	20.	6.	3.	.15
HYDROGRAPH AT	460	214.	12.07	19.	6.	3.	.14
2 COMBINED AT	C102	312.	12.07	39.	12.	6.	.29
ROUTED TO	BASIN3	71.	12.63	39.	12.	6.	.29
ROUTED TO	R3	71.	12.77	39.	12.	6.	.29
HYDROGRAPH AT	461	161.	12.10	17.	5.	2.	.12
2 COMBINED AT	C104	213.	12.10	55.	17.	8.	.41
2 COMBINED AT	C106	835.	12.07	110.	32.	16.	1.05
ROUTED TO	R106	797.	12.13	110.	32.	16.	1.05

	HYDROGRAPH AT	462	538.	12.07	40.	11.	5.	.30
+	2 COMBINED AT	C56	1254.	12.10	149.	42.	21.	1.35
	HYDROGRAPH AT	480	1050.	12.10	96.	29.	14.	.73
+	DIVERSION TO	BS480	455.	11.90	27.	8.	4.	.73
+	HYDROGRAPH AT	D480	1050.	12.10	78.	21.	10.	.73
+	HYDROGRAPH AT	RT480	455.	11.90	27.	8.	4.	.73
+	ROUTED TO	SR480	6.	3.90	6.	6.	4.	.73
+	2 COMBINED AT	C480	1056.	12.10	84.	27.	14.	.73
+	3 COMBINED AT	480C	2517.	12.10	967.	594.	355.	2.09
+	ROUTED TO	RR480	2355.	12.13	964.	594.	355.	2.09
+	HYDROGRAPH AT	500	1073.	12.27	122.	33.	16.	.93
+	2 COMBINED AT	500C	3244.	12.17	1075.	622.	369.	2.84

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

SPOOK HILL ADMP



HEC-1 Existing Conditions 100-Year, 6hr Storm

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1*************************************
*                                   *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)*
*            JUN   1998             *
*          VERSION 4.1              *
*                                   *
*  RUN DATE   25APR00  TIME  08:53:22*
*                                   *
*************************************
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*************************************
*                                   *
*    U.S. ARMY CORPS OF ENGINEERS   *
*   HYDROLOGIC ENGINEERING CENTER   *
*         609 SECOND STREET         *
*      DAVIS, CALIFORNIA 95616      *
*          (916) 756-1104           *
*                                   *
*************************************
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X     X  XXXXXXX   XXXXX          X
X     X  X        X     X        XX
X     X  X        X               X
XXXXXXX  XXXX     X        XXXXX  X
X     X  X        X               X
X     X  X        X     X         X
X     X  XXXXXXX   XXXXX         XXX
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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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1                                        HEC-1 INPUT                                                    PAGE  1

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

    1           ID   EXISTING LAND USE CALCULATIONS WERE BASED ON 1 YR. FROM 11/5/99
    2           ID   FOR LAS SENDAS       AND LANDISCOR JAN.1999 AERIAL PHOTOGPRAPHS
    3           ID
    4           ID   ALL DAMS WERE ANALYZED WITH NO STORAGE BELOW PRINCIPLE SPILLWAY ELEVATIONS
    5           ID
    6           ID   A CONSERVATIVE ESTIMATE WAS USED FOR THE LOCATION OF THE CENTROID FOR
    7           ID   PRECIPITATION VALUES
    8           ID
    9           ID   ALL CHANNEL ROUTING INFORMATION WAS OBTAINED FROM MCFCD SPOOK HILL   SIGNAL
   10           ID   BUTTE        AND BULLDOG FLOODWAY PLANS
   11           ID
   12           ID   ANALYSIS PREPARED BY WOOD/PATEL - JCD; 11/05/99; FILE:  SPHEX1.DAT
   13           ID
   14           ID   MODEL UPDATE WITH LAS SENDAS WEST BASINS & ALL RETENTION BASINS
   15           ID   DRAINING BACK INTO THE SYSTEM WITHIN 36 HOURS
   16           ID   BY: JCD; 1/4/2000            FILE: SPHEX1RV.DAT
   17           ID
   18           ID   CURRENT MODEL UPDATED WITH ALL PREVIOUS MODEL RUNS
   19           ID   NOTED ABOVE, AND COUNTY COMMENTS DATED MARCH 20, 2000
   20           ID   BY: MW; 04/06/2000       FILE:  S6CE0.DAT
   21           ID
   22           ID   SUB-BASINS 200 & 220 DIVIDED CREATING TWO NEW SUB-BASINS
   23           ID   190 & 210 ON 4/25/00
   24           ID
   25           ID   DDM MCUHP1 SPOOK HILL AMDP - EXISTING CONDITIONS MODEL - 100YR, 6hr STORM
                *DIAGRAM
   26           IT       2                    1500
   27           IO       3
   28           IN      15
   29           JD    3.15    0.01
   30           PC    .000    .002    .005    .008    .011    .014    .017    .020    .023    .026
   31           PC    .029    .032    .035    .038    .041    .044    .048    .052    .056    .060
   32           PC    .064    .068    .072    .076    .080    .085    .090    .095    .100    .105
   33           PC    .110    .115    .120    .126    .133    .140    .147    .155    .163    .172
   34           PC    .181    .191    .203    .218    .236    .257    .283    .387    .663    .707
   35           PC    .735    .758    .776    .791    .804    .815    .825    .834    .842    .849
   36           PC    .856    .863    .869    .875    .881    .887    .893    .898    .903    .908
   37           PC    .913    .918    .922    .926    .930    .934    .938    .942    .946    .950
   38           PC    .953    .956    .959    .962    .965    .968    .971    .974    .977    .980
   39           PC    .983    .986    .989    .992    .995    .998   1.000
   40           JD    2.96   10.00
   41           JD    2.84   30.00
   42           JD    2.71   60.00
   43           JD    2.66   90.00
   44           JD    2.63  120.00
   45           JD    2.60  150.00
   46           JD    2.52  300.00
   47           JD    2.46  500.00
                * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                                    PAGE  2

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


   48           KK      10
   49           KM   SUB-BASIN 10
   50           KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
   51           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
   52           KM     L = 2.00  Kb = .044  Adj. Slope =  165.0
   53           BA    .702
   54           LG    .350    .320   7.600    .090  15.000
   55           UC    .463    .335
   56           UA       0       3       5       8      12      20      43      75      90      96
   57           UA     100
                * DDM   ***** Preserved *****

   58           KK     R10
   59           KM   ROUTING OF FLOW FROM SUB-BASIN 10 TO SUB-BASIN 20
   60           RS      11    FLOW      -1
   61           RC    .045    .045    .045   13200    .017
   62           RX       0       1       2      14      34      46      47      48
   63           RY       4       4       4       0       0       4       4       4
                * DDM   ***** Preserved *****

   64           KK      20
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 65          KM   SUB-BASIN 20
 66          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 67          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .993
 68          KM     L = 2.50  Kb = .041  Adj. Slope =   88.0
 69          BA   1.120
 70          LG    .350    .390   5.800    .190   1.000
 71          UC    .783    .551
 72          UA       0       3       5       8      12      20      43      75      90      96
 73          UA     100
             * DDM   ***** Preserved *****

 74          KK     C20
 75          KM   HYDROGRAPH COMBINATION OF SUB-BASINS 10 AND 20
 76          HC       2
             * DDM   ***** Preserved *****

 77          KK      40
 78          KM   SUB-BASIN 40
 79          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 80          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .987
 81          KM     L = 3.08  Kb = .036  Adj. Slope =  189.0
 82          BA   2.233
 83          LG    .340    .340   4.900    .280   5.000
 84          UC    .583    .316
 85          UA       0       3       5       8      12      20      43      75      90      96
 86          UA     100
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE  3

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

 87          KK      60
 88          KM   SUB-BASIN 60
 89          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 90          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .990
 91          KM     L = 4.19  Kb = .038  Adj. Slope =  209.6
 92          BA   1.746
 93          LG    .330    .350   5.800    .190   9.000
 94          UC    .696    .566
 95          UA       0       3       5       8      12      20      43      75      90      96
 96          UA     100
             * DDM   ***** Preserved *****

 97          KK     60C
 98          KM   HYDROGRAPH COMBINATION FOR APACHE JUNCTION FRS
             *      1       2
 99          HC       3
             * DDM   ***** Preserved *****

100          KK    SR60
101          KM   APACHE JUNCTION FRS AS-BUILT PLANS 12/19/88
102          KM   OUTLET PIPE=30"RCP; L=136.6'; INLET INV.=1783.5; OUTLET INV.=1783
103          KM   EMERGENCY SPILLWAY ELEV.=1799.77'; PRINCIPLE SPILLWAY ELEV.=1793.5'
104          KM   STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 100 ACRE-FEET
105          RS       1    STOR       0
106          SV       0       1     100     200     300     400
107          SQ       0      71      81      87    91.5      94
108          SE    83.5    93.5      96    97.7      99   99.77
             * DDM   ***** Preserved *****

109          KK     R60
110          KM        ROUTE FLOW THROUGH BULLDOG FLOODWAY FROM APACHE JUNCTION FRS
111          RS       1    FLOW      -1
112          RC    .016    .016    .016    2850    .012
113          RX       0       1       2     2.1     5.6     5.7       6       7
114          RY     3.5     3.5     3.5       0       0     3.5     3.5     3.5
             * DDM   ***** Preserved *****

115          KK    RR60
116          KM   ROUTE FLOW FROM BULLDOG FLOODWAY TO SUB-BASIN 80
117          RS       3    FLOW      -1
118          RC    .016    .016    .016    3500    .005
119          RX       0       1       2     2.1     7.1     7.2       8       9
120          RY     3.5     3.5     3.5       0       0     3.5     3.5     3.5
             * DDM   ***** Preserved *****

121          KK      80
122          KM   SUB-BASIN 80
123          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
124          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
125          KM     L = 2.69  Kb = .039  Adj. Slope =  229.8
126          BA   1.475
127          LG    .330    .330   5.600    .210   4.000
128          UC    .488    .295
129          UA       0       3       5       8      12      20      43      75      90      96
1                                    HEC-1 INPUT                                          PAGE  4

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

130          UA     100
             * DDM   ***** Preserved *****

131          KK     80C
132          KM   HYDROGRAPH COMBINATION FOR FLOW FROM APACHE JUNCTION FRS & SUB-BASIN 80
133          HC       2   1.475
             * DDM   ***** Preserved *****

134          KK     R80
135          KM   ROUTE FLOW FROM SUB-BASIN 80 TO SUB-BASIN 100
136          RS       1    FLOW      -1
137          RC    .025    .016    .025    1200    .003
138          RX       0       2       6     6.1    41.1    41.2    55.2    57.2
139          RY     5.5     4.5     4.5       0       0     4.5     4.5     5.5
             * DDM   ***** Preserved *****

140          KK     100
141          KM   SUB-BASIN 100
142          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
143          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
144          KM     L = 1.94  Kb = .046  Adj. Slope =  108.0
145          BA    .484
146          LG    .320    .290   5.100    .260   3.000
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147          UC    .625    .564
148          UA       0       5      16      30      65      77      84      90      94      97
149          UA     100
             * DDM   ***** Preserved *****

150          KK    100C
151          KM   HYDROGRAPH COMBINATION FOR FLOW FROM SUB-BASIN 80 & 100
152          HC       2
             * DDM   ***** Preserved *****

153          KK    R100
154          KM   ROUTE FLOW FROM SUB-BASIN 100 TO SUB-BASIN 120
155          RS       1    FLOW      -1
156          RC    .016    .016    .016     940    .005
157          RX       0       1       2     2.1    52.1    52.2      53      54
158          RY     4.5     4.5     4.5       0       0     4.5     4.5     4.5
             * DDM   ***** Preserved *****

159          KK     120
160          KM   SUB-BASIN 120
161          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
162          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .987
163          KM     L = 3.07  Kb = .037  Adj. Slope =  239.0
164          BA   2.202
165          LG    .330    .280   6.800    .130  11.000
166          UC    .475    .253
167          UA       0       3       5       8      12      20      43      75      90      96
168          UA     100
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE  5

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

169          KK    120C
170          KM   HYDROGRAPH COMBINATION FOR FLOW FROM SUB-BASIN 100 & 120
171          HC       2
             * DDM   ***** Preserved *****

172          KK    R120
173          KM   ROUTE FLOW FROM SUB-BASIN 120 TO SIGNAL BUTTE FRS
174          RS       1    FLOW      -1
175          RC    .025    .016    .025    2100    .005
176          RX       0       6      10    10.1    60.1    60.2    74.2    80.2
177          RY       8       5       5       0       0       5       5       8
             * DDM   ***** Preserved *****

178          KK     140
179          KM   SUB-BASIN 140
180          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
181          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
182          KM     L = 1.61  Kb = .044  Adj. Slope =  149.0
183          BA    .598
184          LG    .310    .280   4.200    .440   5.000
185          UC    .488    .327
186          UA       0       5      16      30      65      77      84      90      94      97
187          UA     100
             * DDM   ***** Preserved *****

188          KK     150
189          KM   SUB-BASIN 150
190          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
191          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
192          KM     L = 1.50  Kb = .047  Adj. Slope =  315.0
193          BA    .408
194          LG    .350    .360   5.100    .260   7.000
195          UC    .338    .255
196          UA       0       3       5       8      12      20      43      75      90      96
197          UA     100
             * DDM   ***** Preserved *****

198          KK    R150
199          KM   ROUTING OF FLOW FROM SUB-BASIN 150 THROUGH 160
200          RS      11    FLOW      -1
201          RC    .045    .045    .045   10895    .019
202          RX       0       1       2      14      34      46      47      48
203          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Preserved *****

204          KK     160
205          KM   SUB-BASIN 160
206          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
207          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
208          KM     L = 2.10  Kb = .047  Adj. Slope =  129.0
209          BA    .369
210          LG    .340    .330   4.150    .440   1.000
211          UC    .712    .812
212          UA       0       3       5       8      12      20      43      75      90      96
1                                        HEC-1 INPUT                                          PAGE  6

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

213          UA     100
             * DDM   ***** Preserved *****

214          KK     180
215          KM   SUB-BASIN 180
216          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
217          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
218          KM     L = 2.42  Kb = .041  Adj. Slope =  140.0
219          BA   1.000
220          LG    .350    .350   4.150    .430    .000
221          UC    .692    .498
222          UA       0       3       5       8      12      20      43      75      90      96
223          UA     100
             * DDM   ***** Preserved *****

224          KK    180C
225          KM   HYDROGRAPH COMBINATION FOR SIGNAL BUTTE FRS
226          HC       5
             * DDM   ***** Preserved *****

227          KK     240
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228          KM   SUB-BASIN 240
229          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
230          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
231          KM     L = 3.50  Kb = .041  Adj. Slope =  298.6
232          BA   1.036
233          LG    .350    .350   4.600    .330   2.000
234          UC    .600    .560
235          UA      0       3       5       8      12      20      43      75      90      96
236          UA    100
             * DDM   ***** Preserved *****

237          KK    R240
238          KM   ROUTE FLOW FROM SUB-BASIN 240 TO SUB-BASIN 220
239          KM   PASS MOUNTAIN DIVERSION
240          RS      3    FLOW      -1
241          RC    .035    .025    .035    2100    .005
242          RX      0      15      30      39      69      81      96     111
243          RY    3.6     3.3       3       0       0       3       3       4
             * DDM   ***** Preserved *****

244          KK     210
245          KM   SUB-BASIN 210
246          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
247          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
248          KM     L = 1.84  Kb = .044  Adj. Slope =  315.0
249          BA    .583
250          LG    .000   7.000    .190    .030   5.800
251          UC    .329    .239
252          UA      0       3       5       8      12      20      43      75      90      96
253          UA    100
             * DDM   ***** Preserved *****
1                                        HEC-I INPUT                                          PAGE  7

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

254          KK    R210
255          KM   ROUTING OF FLOW FROM SUB-BASIN 210 TO SUB-BASIN 220
256          RS      3    FLOW      -1
257          RC    .045    .045    .045    5484    .024
258          RX      0       1       2      14      29      41      42      43
259          RY      4       4       4       0       0       4       4       4
             * DDM   ***** Preserved *****

260          KK     220
261          KM   SUB-BASIN 220
262          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
263          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
264          KM     L = 1.92  Kb = .044  Adj. Slope =  315.0
265          BA    .688
266          LG    .350    .330   7.300    .110   1.000
267          UC    .358    .247
268          UA      0       3       5       8      12      20      43      75      90      96
269          UA    100
             * DDM   ***** Preserved *****

270          KK    220C
271          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 240 & 220
272          HC      3
             * DDM   ***** Preserved *****

273          KK    R220
274          KM   ROUTE FLOW FROM SUB-BASIN 220 TO SUB-BASIN 200
275          KM   PASS MOUNTAIN DIVERSION
276          RS      2    FLOW      -1
277          RC    .035    .025    .035    1900    .005
278          RX      0      50     100     109     139     148     178     184
279          RY      5       4       3       0       0       3       3       5
             * DDM   ***** Preserved *****

280          KK     190
281          KM   SUB-BASIN 190
282          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
283          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
284          KM     L = 1.91  Kb = .042  Adj. Slope =  315.0
285          BA    .918
286          LG    .350    .390   5.800    .190   8.000
287          UC    .358    .209
288          UA      0       3       5       8      12      20      43      75      90      96
289          UA    100
             * DDM   ***** Preserved *****

290          KK    R190
291          KM   ROUTING OF FLOW FROM SUB-BASIN 190 TO SUB-BASIN 200
292          RS      5    FLOW      -1
293          RC    .045    .045    .045    6948    .023
294          RX      0       1       2      17      37      52      53      54
295          RY      5       5       5       0       0       5       5       5
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE  8

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

296          KK     200
297          KM   SUB-BASIN 200
298          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
299          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
300          KM     L = 1.92  Kb = .042  Adj. Slope =  315.0
301          BA    .918
302          LG    .350    .390   5.800    .190   7.000
303          UC    .363    .212
304          UA      0       3       5       8      12      20      43      75      90      96
305          UA    100
             * DDM   ***** Preserved *****

306          KK    200C
307          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 220 & 200
308          HC      3
             * DDM   ***** Preserved *****

309          KK    R200
310          KM   ROUTE FLOW FROM SUB-BASIN 200 TO SIGNAL BUTTE FRS
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311          RS        1    FLOW       -1
312          RC     .035    .025     .035    1300     .005
313          RX        0       1        2      17      117      132      133      134
314          RY        5       5        5       0        0        5        5        5
             * DDM   ***** Preserved *****

315          KK    C180
316          KM    HYDROGRAPH COMBINATION FOR SIGNAL BUTTE FRS
             *       1       2
317          HC        2
             * DDM   ***** Preserved *****

318          KK    SR180
319          KM    SIGNAL BUTTE FRS DATED 1/28/85
320          KM    OUTLET PIPE=36"RCP; L= 147';  INLET INV.=1690; OUTLET INV.=1687
321          KM    EMERGENCY SPILLWAY ELEV.=1712.4; PRINCIPLE SPILLWAY ELEV.=1701
322          KM    STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 250 ACRE-FEET
323          RS        1    STOR        0
324          SV        0       1      250      500      750     1060
325          SQ        0   106.5    125.5    137.5      146      160
326          SE       90     101    104.5      107      109    112.4
             * DDM   ***** Preserved *****

327          KK    R180
328          KM    ROUTE FLOW FROM SIGNAL BUTTE FRS TO SUB-BASIN 260
329          RS        4    FLOW       -1
330          RC     .035    .025     .035    1500     .003
331          RX        0       1        2    22.6     38.6     59.2       60       61
332          RY      9.3     9.3      9.3       0        0      9.3      9.3      9.3
             * DDM   ***** Preserved *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

333          KK      260
334          KM    SUB-BASIN 260
335          KM    24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
336          KM    THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
337          KM      L =  .81  Kb = .049  Adj. Slope =   68.0
338          BA     .267
339          LG     .300    .170    6.800    .160   15.000
340          UC     .396    .237
341          UA        0       5       16       30       65       77       84       90       94       97
342          UA      100
             * DDM   ***** Preserved *****

343          KK     260C
344          KM    HYDROGRAPH COMBINATION FOR OUTFLOW OF SIGNAL BUTTE FRS & SUB-BASIN 260
345          HC        2     .267
             * DDM   ***** Preserved *****

346          KK     R260
347          KM    ROUTE FLOW FROM SUB-BASIN 260 TO SUB-BASIN 280
348          RS        2    FLOW       -1
349          RC     .035    .025     .035    2300     .003
350          RX        0       1        2    23.4     43.4     64.8       65       66
351          RY      9.7     9.7      9.7       0        0      9.7      9.7      9.7
             * DDM   ***** Preserved *****

352          KK      280
353          KM    SUB-BASIN 280
354          KM    24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
355          KM    THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
356          KM      L =  .77  Kb = .049  Adj. Slope =   84.0
357          BA     .304
358          LG     .300    .250    5.300    .290   15.000
359          UC     .371    .197
360          UA        0       5       16       30       65       77       84       90       94       97
361          UA      100
             * DDM   ***** Preserved *****

362          KK     280C
363          KM    HYDROGRAPH COMBINATION FOR SUB-BASIN 260 & SUB-BASIN 280
364          HC        2
             * DDM   ***** Preserved *****

365          KK     R280
366          KM    ROUTE FLOW FROM SUB-BASIN 280 TO SUB-BASIN 300
367          RS        2    FLOW       -1
368          RC     .035    .025     .035    2500     .003
369          RX        0       1        2    23.4     43.4     64.8       65       66
370          RY      9.7     9.7      9.7       0        0      9.7      9.7      9.7
             * DDM   ***** Preserved *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

371          KK      300
372          KM    SUB-BASIN 300
373          KM    24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
374          KM    THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
375          KM      L = 2.28  Kb = .041  Adj. Slope =  127.0
376          BA     .988
377          LG     .340    .320    4.500    .370    7.000
378          UC     .642    .440
379          UA        0       5       16       30       65       77       84       90       94       97
380          UA      100
             * DDM   ***** Preserved *****

381          KK     300C
382          KM    HYDROGRAPH COMBINATION OF SUB-BASIN 280 & 300
383          HC        2
             * DDM   ***** Preserved *****

384          KK     R300
385          KM    ROUTE FLOW FROM SUB-BASIN 300 TO START OF FLOODWAY CONCRETE CHANNEL
386          RS        2    FLOW       -1
387          RC     .035    .025     .035    2200     .003
388          RX        0       1        2    23.4     55.4     76.8       77       78
389          RY      9.7     9.7      9.7       0        0      9.7      9.7      9.7
             * DDM   ***** Preserved *****
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390          KK   RR300
391          KM   CONTINUE TO ROUTE FLOW WITHIN CONCRETE CHANNEL TO SPOOK HILL FRS
392          RS       2    FLOW      -1
393          RC    .016    .016    .016    6050   .0146
394          RX       0       1       2     2.1    16.1    16.2      17      18
395          RY     7.5     7.5     7.5       0       0     7.5     7.5     7.5
             *      1       2
             * DDM   ***** Preserved *****

396          KK     350
397          KM   SUB-BASIN 350
398          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
399          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
400          KM     L = 2.22  Kb = .042  Adj. Slope =  315.0
401          BA    .970
402          LG    .350    .350   4.550    .340   4.000
403          UC    .425    .276
404          UA       0       3       5       8      12      20      43      75      90      96
405          UA     100
             * DDM   ***** Preserved *****

406          KK    D350
407          KM   DIVERT FLOW FROM SUB-BASIN 350. FOR MODELING PURPOSES THE SPLIT FLOW WILL
408          KM   BE ROUTED BETWEEN SUB-BASINS 355 & 310. THE MAIN FLOW WILL ROUTED TO 310
409          DT   SF350
410          DI       0   10000
411          DQ       0    6000
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 11

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

412          KK    350R
413          KM   ROUTING OF MAIN FLOW FROM DIVERSION OF SUB-BASIN 350 TO SUB-BASIN 310
414          RS       5    FLOW      -1
415          RC    .045    .045    .045    5379    .024
416          RX       0       1       2      11      26      35      36      37
417          RY       3       3       3       0       0       3       3       3
             * DDM   ***** Preserved *****

418          KK     310
419          KM   SUB-BASIN 310
420          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
421          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
422          KM     L = 2.70  Kb = .045  Adj. Slope =  283.5
423          BA    .555
424          LG    .350    .350   3.910    .480    .000
425          UC    .587    .635
426          UA       0       3       5       8      12      20      43      75      90      96
427          UA     100
             * DDM   ***** Preserved *****

428          KK    C310
429          KM   HYDROGRAPH COMBINATION OF SUB-BASINS 350 & 310
430          HC       2    .943
             * DDM   ***** Preserved *****

431          KK    R310
432          KM   ROUTING OF FLOW FROM SUB-BASIN 310 TO 320
433          RS       9    FLOW      -1
434          RC    .045    .045    .045   10050    .022
435          RX       0       1       2      14      29      41      42      43
436          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Preserved *****

437          KK     320
438          KM   SUB-BASIN 320
439          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
440          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
441          KM     L = 2.20  Kb = .042  Adj. Slope =  132.0
442          BA    .972
443          LG    .310    .300   4.550    .360  14.000
444          UC    .596    .398
445          UA       0       5      16      30      65      77      84      90      94      97
446          UA     100
             * DDM   ***** Preserved *****

447          KK    D320
448          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
449          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THREE SUBDIVISIONS
450          KM   SIERRA HEIGHTS       FALCON RIDGE    & MARBLE CREEK
451          KM        MAXIMUM VOLUME DIVERSION = 12.27acre-feet
             *      1
452          DT   BS320   12.27
453          DI       0   10000
454          DQ       0   10000
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 12

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

455          KK   RT320
456          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
457          DR   BS320
             * DDM   ***** Preserved *****

458          KK   SR320
459          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
460          KM   12.27 ACRE-FEETx43560/36x3600=4.1cfs
             *      1
461          RS       1    STOR       0
462          SV       0     .01    12.3
463          SQ       0     4.2     4.2
             * DDM   ***** Preserved *****

464          KK    C320
465          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
466          HC       4
             * DDM   ***** Preserved *****
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467          KK     340
468          KM   NEED DRAINAGE REPORT FOR DETENTION/RETENTION BASIN #12
469          KM   NEED NAME FOR BASIN #12
470          KM   SUB-BASIN 340
471          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
472          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
473          KM     L = 2.40  Kb = .042  Adj. Slope =  160.0
474          BA   1.449
475          LG    .280    .280   4.150    .520  21.000
476          UC    .600    .342
477          UA       0       5      16      30      65      77      84      90      94      97
478          UA     100
             * DDM   ***** Preserved *****

479          KK    D340
480          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
481          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THREE SUBDIVISIONS
482          KM   GRANDVIEW ESTATES    BOULDER MOUNTAIN & 33% OF MESA HIGHLANDS
483          KM        MAXIMUM VOLUME DIVERSION = 56.0 acre-feet
             *      1
484          DT   BS340      56
485          DI       0   10000
486          DQ       0   10000
             * DDM   ***** Preserved *****

487          KK   RT340
488          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
489          DR   BS340
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE 13

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

490          KK   SR340
491          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
492          KM    56.0 ACRE-FEETx43560/36x3600=18.8cfs
             *      1
493          RS       1    STOR       0
494          SV       0     .01      56
495          SQ       0    18.9    18.9
             * DDM   ***** Preserved *****

496          KK    C340
497          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
498          HC       3
             * DDM   ***** Preserved *****

499          KK   RT350
500          KM   RETRIEVE SPLIT FLOW FROM DIVERSION OF SUB-BASIN 350
501          DR   SF350
             * DDM   ***** Preserved *****

502          KK   RR350
503          KM   ROUTING OF FLOW FROM SPLIT OF SUB-BASIN 350 TO 355
504          RS       5    FLOW      -1
505          RC    .045    .045    .045    6150    .023
506          RX       0       1       2      14      29      41      42      43
507          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Preserved *****

508          KK     355
509          KM   SUB-BASIN 355
510          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
511          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
512          KM     L = 3.00  Kb = .044  Adj. Slope =  284.0
513          BA    .659
514          LG    .340    .340   4.450    .370   4.000
515          UC    .583    .621
516          UA       0       3       5       8      12      20      43      75      90      96
517          UA     100
             * DDM   ***** Preserved *****

518          KK    C355
519          KM   HYDROGRAPH COMBINATION OF SUB-BASIN 355 AND THE SPLIT FLOW FROM SUB-BASIN 350
520          HC       2    1.24
             * DDM   ***** Preserved *****

521          KK    R355
522          KM   ROUTING OF FLOW FROM SUB-BASIN 355 TO SUB-BASIN 360
523          RS       9    FLOW      -1
524          RC    .045    .045    .045   11535    .023
525          RX       0       1       2      14      34      46      47      48
526          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE 14

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

527          KK     370
528          KM   SUB-BASIN 370
529          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
530          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
531          KM     L = 2.90  Kb = .044  Adj. Slope =  294.6
532          BA    .667
533          LG    .340    .320   4.650    .330   9.000
534          UC    .525    .534
535          UA       0       3       5       8      12      20      43      75      90      96
536          UA     100
             * DDM   ***** Preserved *****

537          KK    R370
538          KM   ROUTING OF FLOW FROM SUB-BASIN 370 TO 360
539          RS      11    FLOW      -1
540          RC    .045    .045    .045   11782    .021
541          RX       0       1       2      14      29      41      42      43
542          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Preserved *****

543          KK     360
544          KM   SUB-BASIN 360
545          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
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546          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
547          KM     L = 2.10  Kb = .048  Adj. Slope =  124.0
548          BA    .670
549          LG    .260    .270   4.100    .560  20.000
550          UC    .688    .555
551          UA       0       5      16      30      65      77      84      90      94      97
552          UA     100
             * DDM   ***** Preserved *****

553          KK    D360
554          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
555          KM   DETENTION/RETENTION BASINS LOCATED WITHIN 33% OF MESA HIGHLANDS
556          KM        MAXIMUM VOLUME DIVERSION = 28.6 acre-feet
             *      1
557          DT   BS360    28.6
558          DI       0   10000
559          DQ       0   10000
             * DDM   ***** Preserved *****

560          KK   RT360
561          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
562          DR   BS360
             * DDM   ***** Preserved *****

563          KK   SR360
564          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
565          KM    28.6 ACRE-FEETx43560/36x3600=9.6cfs
566          RS       1    STOR       0
567          SV       0     .01    28.6
568          SQ       0     9.6     9.6
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE 15

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


569          KK    360C
570          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
571          HC       5
             * DDM   ***** Preserved *****

572          KK     395
573          KM   SUB-BASIN 395
574          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
575          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
576          KM     L = 1.60  Kb = .051  Adj. Slope =  215.8
577          BA    .198
578          LG    .330    .320   4.900    .300  10.000
579          UC    .433    .536
580          UA       0       3       5       8      12      20      43      75      90      96
581          UA     100
             * DDM   ***** Preserved *****

582          KK    R395
583          KM   ROUTING OF FLOW FROM SUB-BASIN 395 TO SUB-BASIN 380
584          RS      15    FLOW      -1
585          RC    .045    .045    .045   11300    .021
586          RX       0       1       2      11      26      35      36      37
587          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Preserved *****

588          KK     380
589          KM   NEED DRAINAGE REPORT FOR DETENTION/RETENTION BASIN LABELED #6
590          KM   NEED NAME OF BASIN #6;  4/17/00
591          KM   SUB-BASIN 380
592          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
593          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
594          KM     L = 2.20  Kb = .048  Adj. Slope =  114.0
595          BA    .972
596          LG    .300    .310   4.150    .500   7.000
597          UC    .792    .545
598          UA       0       5      16      30      65      77      84      90      94      97
599          UA     100
             * DDM   ***** Preserved *****

600          KK    D380
601          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
602          KM   DETENTION/RETENTION BASINS LOCATED WITHIN 33% OF MESA HIGHLANDS
603          KM        MAXIMUM VOLUME DIVERSION = 28.6 acre-feet
             *      1
604          DT   BS380    28.6
605          DI       0   10000
606          DQ       0   10000
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE 16

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


607          KK   RT380
608          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
609          DR   BS380
             * DDM   ***** Preserved *****

610          KK   SR380
611          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
612          KM    28.6 ACRE-FEETx43560/36x3600=9.6cfs
613          RS       1    STOR       0
614          SV       0     .01    28.6
615          SQ       0     9.6     9.6
             * DDM   ***** Preserved *****

616          KK    380C
617          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
618          HC       4
             * DDM   ***** Preserved *****

619          KK     390
620          KM   SUB-BASIN 390
621          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
622          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
623          KM     L =  .70  Kb = .050  Adj. Slope =  299.4
624          BA    .244
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625          LG    .300    .250   4.700    .380  18.000
626          UC    .221    .116
627          UA      0       5      16      30      65      77      84      90      94      97
628          UA    100
             * DDM   ***** Preserved *****

629          KK    D390
630          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
631          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THUNDER MOUNTAIN ESTATES
632          KM        MAXIMUM VOLUME DIVERSION  = 3.5 acre-feet
             *      1
633          DT   BS390     3.5
634          DI       0   10000
635          DQ       0   10000
             * DDM   ***** Preserved *****

636          KK   RT390
637          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
638          DR   BS390
             * DDM   ***** Preserved *****

639          KK   SR390
640          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
641          KM     3.5 ACRE-FEETx43560/36x3600=1.2cfs
642          RS       1    STOR       0
643          SV       0     .01     3.5
644          SQ       0     1.2     1.2
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE 17

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


645          KK    390C
646          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
647          HC       2
             * DDM   ***** Preserved *****

648          KK   RR390
649          KM   FROM SUB-BASIN 390 TO SUB-BASIN 400
650          RS      10    FLOW      -1
651          RC    .045    .045    .045    9029    .020
652          RX       0       1       2      14      19      31      32      33
653          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Preserved *****

654          KK     400
655          KM   NEED DRAINAGE REPORT FOR AREA #6 WITHIN BASINS 380 & 400
656          KM   NEED NAME OF AREA LABELED #6;  4/17/00
657          KM   SUB-BASIN 400
658          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
659          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
660          KM     L = 1.64  Kb = .046  Adj. Slope =  110.0
661          BA    .616
662          LG    .320    .320   3.130    .930   6.000
663          UC    .704    .491
664          UA      0       5      16      30      65      77      84      90      94      97
665          UA    100
             * DDM   ***** Preserved *****

666          KK    D400
667          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
668          KM   DETENTION/RETENTION BASINS LOCATED WITHIN GRAY FOX SUBDIVISION
669          KM        MAXIMUM VOLUME DIVERSION = 5.6  ACRE - FT
             *      1
670          DT   BS400     5.6
671          DI       0   10000
672          DQ       0   10000
             * DDM   ***** Preserved *****

673          KK   RT400
674          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
675          DR   BS400
             * DDM   ***** Preserved *****

676          KK   SR400
677          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
678          KM     5.6 ACRE-FEETx43560/36x3600 =  2cfs
679          RS       1    STOR       0
680          SV       0     .01     5.6
681          SQ       0       2       2
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE 18

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


682          KK    C400
683          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
684          HC       2
             * DDM   ***** Preserved *****

685          KK    400C
686          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
687          HC       3
             * DDM   ***** Preserved *****

688          KK     385
689          KM   SUB-BASIN 385
690          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
691          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
692          KM     L = 2.30  Kb = .044  Adj. Slope =  303.0
693          BA    .647
694          LG    .350    .370   5.600    .210  13.000
695          UC    .425    .357
696          UA      0       3       5       8      12      20      43      75      90      96
697          UA    100
             * DDM   ***** Preserved *****

698          KK    D385
699          KM   DIVERT FLOW INTO SUB-BASINS 415 & 420
700          DT   SF385
701          DI       0   10000
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702          DQ       0    4000
             * DDM   ***** Preserved *****

703          KK    385R
704          KM   ROUTING OF FLOW DIVERSION FROM SUB-BASIN 385 INTO SUB-BASIN 420
705          RS      10    FLOW      -1
706          RC    .045    .045    .045   10233    .022
707          RX       0       1       2      14      19      31      32      33
708          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Preserved *****

709          KK     420
710          KM   NEED DRAINAGE REPORT FROM WINDSONG
711          KM  ********************************
712          KM   SUB-BASIN 420
713          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
714          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .995
715          KM     L = 1.91  Kb = .042  Adj. Slope =  120.0
716          BA    .849
717          LG    .310    .270   3.880    .580  12.000
718          UC    .608    .393
719          UA       0       5      16      30      65      77      84      90      94      97
720          UA     100
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE 19

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

721          KK    D420
722          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
723          KM   DETENTION/RETENTION BASINS LOCATED WITHIN GRAY FOX SUBDIVISION
724          KM        MAXIMUM VOLUME DIVERSION = 8.65 acre-feet
             *      1
725          DT   BS420    8.65
726          DI       0   10000
727          DQ       0   10000
             * DDM   ***** Preserved *****

728          KK   RT420
729          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
730          DR   BS420
             * DDM   ***** Preserved *****

731          KK   SR420
732          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
733          KM   38.55 ACRE-FEETx43560/36x3600=13cfs
734          RS       1    STOR       0
735          SV       0     .01   38.55
736          SQ       0      13      13
             * DDM   ***** Preserved *****

737          KK    420C
738          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
739          HC       4   10.77
             * DDM   ***** Preserved *****

740          KK     440
741          KM   SUB-BASIN 440
742          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
743          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
744          KM     L =  .40  Kb = .039  Adj. Slope =  315.0
745          BA    .080
746          LG    .190    .380   6.400    .140  13.000
747          UC    .142    .086
748          UA       0       3       5       8      12      20      43      75      90      96
749          UA     100
             * DDM   ***** Preserved *****

750          KK     R70
751          KM   ROUTE FLOW FROM SUB-BASIN 440 TO C108
752          RS       2    FLOW      -1
753          RC     .05    .035     .05    2250     .08
754          RX    1000    1025    1050    1070    1075    1095    1120    1145
755          RY      30    22.9    15.7      10      10    15.7    22.9      30
             * DDM   ***** Preserved *****

756          KK     441
757          KM   SUB-BASIN 441
758          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
759          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
760          KM     L =  .28  Kb = .069  Adj. Slope =  315.0
761          BA    .010
1                                    HEC-1 INPUT                                          PAGE 20

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

762          LG    .300    .250   5.600    .220   5.000
763          UC    .162    .245
764          UA       0       5      16      30      65      77      84      90      94      97
765          UA     100
             * DDM   ***** Preserved *****

766          KK    C108
767          KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 440 & 441
768          HC       2
             * DDM   ***** Preserved *****

769          KK    DIV4
770          KM        SPLIT FLOW WITH TWO 42 INCH PIPES TO WEST AND SOUTH
             *      1
771          DT   SPLIT
772          DI       0      14      40      82     120     154     180
773          DQ       0       7      20      41      60      77      90
             * DDM   ***** Preserved *****

774          KK    R108
775          KM        ROUTE FLOW FROM SUB-BASIN C108 TO C67
776          RS       2    FLOW      -1
777          RC     .05    .035     .05    3200      .1
778          RX    1000    1025    1050    1070    1075    1095    1120    1145
779          RY      30    22.9    15.7      10      10    15.7    22.9      30
             * DDM   ***** Preserved *****
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780          KK     442
781          KM   SUB-BASIN 442
782          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
783          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
784          KM     L =  .83  Kb = .055  Adj. Slope =  274.2
785          BA    .100
786          LG    .300    .270   3.290    .770   5.000
787          UC    .300    .311
788          UA       0       5      16      30      65      77      84      90      94      97
789          UA     100
             * DDM   ***** Preserved *****

790          KK     C67
791          KM   COMBINE FLOW FROM SUB-BASIN 442 & DIV4
792          HC       2
             * DDM   ***** Preserved *****

793          KK    DIV6
794          KM        OFFLINE BASIN WITH 25 FOOT WEIR SET AT 2.5 FEET ABOVE BOTTOM OF CHANNEL
795          KM        FLOW CONTINUES BEYOND BASIN THROUGH 2-30" PIPES
             *      1
796          DT  BASIN4
797          DI       0      10      32      44    79.9   132.5     198   272.9   356.8
798          DQ       0       0       0       0    23.9    67.5     124   190.9   266.8
             * DDM   ***** Preserved *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

799          KK  RTDIV6
800          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
801          DR  BASIN4
             * DDM   ***** Preserved *****

802          KK  RFDIV6
803          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
804          KM     3.3 ACRE-FEETx43560/36x3600=1.1cfs
             *      1
805          RS       1    STOR       0
806          SV       0     .01     3.3
807          SQ       0     1.1     1.1
             * DDM   ***** Preserved *****

808          KK   CDIV6
809          KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
810          HC       2
             * DDM   ***** Preserved *****

811          KK     443
812          KM   SUB-BASIN 443
813          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
814          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
815          KM     L =  .71  Kb = .050  Adj. Slope =  315.0
816          BA    .080
817          LG    .250    .190   8.000    .080  10.000
818          UC    .208    .208
819          UA       0       5      16      30      65      77      84      90      94      97
820          UA     100
             * DDM   ***** Preserved *****

821          KK   DIV66
822          KM        DIVERT FLOW INTO 3 NATURAL WASHES WITH ONE 24" PIPE IN EACH WASH.
823          KM        EACH PIPE CAPACITY BASED ON 4 FEET OF HEAD
824          DT   WSH66
825          DI       0      78     100     200
826          DQ       0      78      78      78
             * DDM   ***** Preserved *****

827          KK    R113
828          KM        ROUTE FLOW FROM C113 TO C114
829          RS       1    FLOW      -1
830          RC    .019    .019    .019    1300    .029
831          RX    1000    1004    1008    1012    1018    1022    1026    1030
832          RY      17   15.33   12.67      10      10   12.67   15.33      17
             * DDM   ***** Preserved *****

833          KK    C114
834          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 67 AND C113
835          HC       2
             * DDM   ***** Preserved *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

836          KK     444
837          KM   SUB-BASIN 444
838          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
839          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
840          KM     L =  .33  Kb = .034  Adj. Slope =  315.0
841          BA    .040
842          LG    .130    .350   4.450    .320   1.000
843          UC    .125    .095
844          UA       0       3       5       8      12      20      43      75      90      96
845          UA     100
             * DDM   ***** Preserved *****

846          KK     R58
847          KM   ROUTE FLOW FROM SUB-BASIN 444 TO C107
848          RS       2    FLOW      -1
849          RC     .05    .035     .05    2370   .0516
850          RX    1000    1010    1020    1050    1055    1085    1095    1105
851          RY      19      18      17      10      10      17      18      19
             * DDM   ***** Preserved *****

852          KK     445
853          KM   SUB-BASIN 445
854          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
855          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
856          KM     L =  .82  Kb = .036  Adj. Slope =  315.0
857          BA    .190
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858          LG    .170    .320   3.470    .590   3.000
859          UC    .208    .143
860          UA       0       5      16      30      65      77      84      90      94      97
861          UA     100
             * DDM   ***** Preserved *****

862          KK    C107
863          KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 444 & 445
864          HC       2
             * DDM   ***** Preserved *****

865          KK    R107
866          KM        ROUTE FLOW FROM C107 TO C109
867          RS       1    FLOW      -1
868          RC     .05    .035     .05     700   .0516
869          RX    1000    1010    1020    1050    1055    1085    1095    1105
870          RY      19      18      17      10      10      17      18      19
             * DDM   ***** Preserved *****

871          KK    RTB2
872          KM        RETRIEVE DIVERTED FLOW FROM BASIN 1
             *      1
873          DR   SPLIT
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 23

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

874          KK  RSPLIT
875          KM        ROUTE FLOW FROM SPLIT TO C109
876          RS       1    FLOW      -1
877          RC     .05    .035     .05     800     .05
878          RX    1000    1025    1050    1070    1075    1095    1120    1145
879          RY      30    22.9    15.7      10      10    15.7    22.9      30
             * DDM   ***** Preserved *****

880          KK     446
881          KM   SUB-BASIN 446
882          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
883          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
884          KM     L =  .46  Kb = .061  Adj. Slope =  303.9
885          BA    .040
886          LG    .270    .250   4.500    .400  19.000
887          UC    .200    .209
888          UA       0       5      16      30      65      77      84      90      94      97
889          UA     100
             * DDM   ***** Preserved *****

890          KK    C109
891          KM        COMBINE HYDROGRAPHS FROM COMBINES C107 AND C108
892          HC       3
             * DDM   ***** Preserved *****

893          KK    DIV5
894          KM        DIVERT FLOW INTO WASHES TOWARDS WEST
895          KM        DIVERSION THROUGH 36" PIPE WITH 3 FEET OF HEAD
             *      1
896          DT  WSH404
897          DI       0    40.7    71.2   121.6     190     276   379.4   500.6
898          DQ       0      35      35      35      35      35      35      35
             * DDM   ***** Preserved *****

899          KK    R109
900          KM        ROUTE FLOW FROM C109 TO C110
901          RS       1    FLOW      -1
902          RC    .019    .019    .019    3080     .05
903          RX    1000    1005    1010    1015    1025    1030    1035    1040
904          RY   13.75    12.5   11.25      10      10   11.25    12.5   13.75
             * DDM   ***** Preserved *****

905          KK     447
906          KM   SUB-BASIN 447
907          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
908          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
909          KM     L =  .49  Kb = .056  Adj. Slope =  221.0
910          BA    .090
911          LG    .250    .270   3.350    .870  30.000
912          UC    .229    .161
913          UA       0       5      16      30      65      77      84      90      94      97
914          UA     100
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 24

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

915          KK   RT404
916          KM        RETRIEVE DIVERTED FLOW FOR WASH 109
917          DR  WSH404
             * DDM   ***** Preserved *****

918          KK    R404
919          KM        ROUTE FLOW FROM C110 TO C110
920          RS       5    FLOW      -1
921          RC    .019    .019    .019    3540     .03
922          RX    1000    1012    1016    1020    1025    1029    1033    1045
923          RY      15      12      11      10      10      11      12      15
             * DDM   ***** Preserved *****

924          KK    C110
925          KM   COMBINE HYDROGRAPHS FROM SUB-BASIN 447 AND R404
926          HC       3
             * DDM   ***** Preserved *****

927          KK    R110
928          KM        ROUTE FLOW FROM C110 TO C115
929          RS       1    FLOW      -1
930          RC    .019    .019    .019     580   .0291
931          RX    1000    1012    1016    1020    1035    1039    1043    1055
932          RY      15      12      11      10      10      11      12      15
             * DDM   ***** Preserved *****
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 933          KK    C115
 934          KM        COMBINE HYDROGRAPHS FROM C114 AND C110
 935          HC       2
              * DDM   ***** Preserved *****

 936          KK    R115
 937          KM        ROUTE FLOW FROM C115 TO C119
 938          RS       1    FLOW      -1
 939          RC    .019    .019    .019    2125    .029
 940          RC    .019    .019    .019     580   .0291
 941          RX    1000    1012    1016    1020    1035    1039    1043    1055
 942          RY      15      12      11      10      10      11      12      15
              * DDM   ***** Preserved *****

 943          KK     448
 944          KM   SUB-BASIN 448
 945          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 946          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
 947          KM     L =  .36  Kb = .042  Adj. Slope =  315.0
 948          BA    .045
 949          LG    .170    .310   4.200    .390  11.000
 950          UC    .146    .113
 951          UA       0       5      16      30      65      77      84      90      94      97
 952          UA     100
              * DDM   ***** Preserved *****
1                                   HEC-1 INPUT                                          PAGE 25

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

 953          KK     449
 954          KM   SUB-BASIN 449
 955          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 956          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
 957          KM     L =  .40  Kb = .054  Adj. Slope =  315.0
 958          BA    .050
 959          LG    .260    .280   3.500    .640   6.000
 960          UC    .183    .149
 961          UA       0       5      16      30      65      77      84      90      94      97
 962          UA     100
              * DDM   ***** Preserved *****

 963          KK   C6364
 964          KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 448 & 449
 965          HC       2
              * DDM   ***** Preserved *****

 966          KK   R6364
 967          KM   ROUTE FLOW FROM C116 AND SUB-BASINS 448 AND 449
 968          RS       5    FLOW      -1
 969          RC     .05    .035     .05    4375   .0333
 970          RX    1000    1027    1053    1080    1090    1117    1143    1170
 971          RY      15   13.33   11.67      10      10   11.67   13.33      15
              * DDM   ***** Preserved *****

 972          KK     450
 973          KM   SUB-BASIN 450
 974          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 975          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
 976          KM     L =  .85  Kb = .057  Adj. Slope =  210.5
 977          BA    .070
 978          LG    .340    .350   3.630    .570   4.000
 979          UC    .346    .455
 980          UA       0       3       5       8      12      20      43      75      90      96
 981          UA     100
              * DDM   ***** Preserved *****

 982          KK     451
 983          KM   SUB-BASIN 451
 984          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 985          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
 986          KM     L =  .57  Kb = .063  Adj. Slope =  175.0
 987          BA    .025
 988          LG    .340    .340   3.290    .750   3.000
 989          UC    .321    .547
 990          UA       0       3       5       8      12      20      43      75      90      96
 991          UA     100
              * DDM   ***** Preserved *****
1                                   HEC-1 INPUT                                          PAGE 26

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

 992          KK    RT66
 993          KM        RETRIEVE DIVERTED FLOW FROM SUB-BASIN 66
 994          DR   WSH66
              * DDM   ***** Preserved *****

 995          KK     452
 996          KM   SUB-BASIN 452
 997          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 998          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
 999          KM     L =  .43  Kb = .055  Adj. Slope =  315.0
1000          BA    .040
1001          LG    .260    .280   3.700    .550   9.000
1002          UC    .188    .184
1003          UA       0       5      16      30      65      77      84      90      94      97
1004          UA     100
              * DDM   ***** Preserved *****

1005          KK   C6465
1006          KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 443 AND 452
1007          HC       2
              * DDM   ***** Preserved *****

1008          KK   R6566
1009          KM        ROUTE FLOW FROM DIVERSIONS 65 AND 66 TO C116
1010          RS       2    FLOW      -1
1011          RC     .05    .035     .05    2435   .0282
1012          RX    1000    1045    1090    1150    1160    1220    1265    1310
1013          RY      25      23      20      10      10      20      23      25
              * DDM   ***** Preserved *****
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858          LG    .170    .320   3.470    .590   3.000
859          UC    .208    .143
860          UA      0       5      16      30      65      77      84      90      94      97
861          UA    100
             * DDM   ***** Preserved *****

862          KK    C107
863          KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 444 & 445
864          HC       2
             * DDM   ***** Preserved *****

865          KK    R107
866          KM        ROUTE FLOW FROM C107 TO C109
867          RS       1    FLOW      -1
868          RC     .05    .035     .05     700   .0516
869          RX    1000    1010    1020    1050    1055    1085    1095    1105
870          RY      19      18      17      10      10      17      18      19
             * DDM   ***** Preserved *****

871          KK    RTB2
872          KM        RETRIEVE DIVERTED FLOW FROM BASIN 1
             *      1
873          DR   SPLIT
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                                PAGE 23

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

874          KK  RSPLIT
875          KM        ROUTE FLOW FROM SPLIT TO C109
876          RS       1    FLOW      -1
877          RC     .05    .035     .05     800     .05
878          RX    1000    1025    1050    1070    1075    1095    1120    1145
879          RY      30    22.9    15.7      10      10    15.7    22.9      30
             * DDM   ***** Preserved *****

880          KK     446
881          KM   SUB-BASIN 446
882          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
883          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
884          KM     L =  .46  Kb = .061  Adj. Slope =  303.9
885          BA    .040
886          LG    .270    .250   4.500    .400  19.000
887          UC    .200    .209
888          UA      0       5      16      30      65      77      84      90      94      97
889          UA    100
             * DDM   ***** Preserved *****

890          KK    C109
891          KM        COMBINE HYDROGRAPHS FROM COMBINES C107 AND C108
892          HC       3
             * DDM   ***** Preserved *****

893          KK    DIV5
894          KM        DIVERT FLOW INTO WASHES TOWARDS WEST
895          KM        DIVERSION THROUGH 36" PIPE WITH 3 FEET OF HEAD
             *      1
896          DT  WSH404
897          DI       0    40.7    71.2   121.6     190     276   379.4   500.6
898          DQ       0      35      35      35      35      35      35      35
             * DDM   ***** Preserved *****

899          KK    R109
900          KM        ROUTE FLOW FROM C109 TO C110
901          RS       1    FLOW      -1
902          RC    .019    .019    .019    3080     .05
903          RX    1000    1005    1010    1015    1025    1030    1035    1040
904          RY   13.75    12.5   11.25      10      10   11.25    12.5   13.75
             * DDM   ***** Preserved *****

905          KK     447
906          KM   SUB-BASIN 447
907          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
908          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
909          KM     L =  .49  Kb = .056  Adj. Slope =  221.0
910          BA    .090
911          LG    .250    .270   3.350    .870  30.000
912          UC    .229    .161
913          UA      0       5      16      30      65      77      84      90      94      97
914          UA    100
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                                PAGE 24

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

915          KK   RT404
916          KM        RETRIEVE DIVERTED FLOW FOR WASH 109
917          DR  WSH404
             * DDM   ***** Preserved *****

918          KK    R404
919          KM        ROUTE FLOW FROM C110 TO C110
920          RS       5    FLOW      -1
921          RC    .019    .019    .019    3540     .03
922          RX    1000    1012    1016    1020    1025    1029    1033    1045
923          RY      15      12      11      10      10      11      12      15
             * DDM   ***** Preserved *****

924          KK    C110
925          KM   COMBINE HYDROGRAPHS FROM SUB-BASIN 447 AND R404
926          HC       3
             * DDM   ***** Preserved *****

927          KK    R110
928          KM        ROUTE FLOW FROM C110 TO C115
929          RS       1    FLOW      -1
930          RC    .019    .019    .019     580   .0291
931          RX    1000    1012    1016    1020    1035    1039    1043    1055
932          RY      15      12      11      10      10      11      12      15
             * DDM   ***** Preserved *****
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 933          KK    C115
 934          KM        COMBINE HYDROGRAPHS FROM C114 AND C110
 935          HC       2
              * DDM   ***** Preserved *****

 936          KK    R115
 937          KM        ROUTE FLOW FROM C115 TO C119
 938          RS       1    FLOW      -1
 939          RC    .019    .019    .019    2125    .029
 940          RC    .019    .019    .019     580   .0291
 941          RX    1000    1012    1016    1020    1035    1039    1043    1055
 942          RY      15      12      11      10      10      11      12      15
              * DDM   ***** Preserved *****

 943          KK     448
 944          KM   SUB-BASIN 448
 945          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 946          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
 947          KM     L =  .36  Kb = .042  Adj. Slope =  315.0
 948          BA    .045
 949          LG    .170    .310   4.200    .390  11.000
 950          UC    .146    .113
 951          UA       0       5      16      30      65      77      84      90      94      97
 952          UA     100
              * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE 25

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

 953          KK     449
 954          KM   SUB-BASIN 449
 955          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 956          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
 957          KM     L =  .40  Kb = .054  Adj. Slope =  315.0
 958          BA    .050
 959          LG    .260    .280   3.500    .640   6.000
 960          UC    .183    .149
 961          UA       0       5      16      30      65      77      84      90      94      97
 962          UA     100
              * DDM   ***** Preserved *****

 963          KK   C6364
 964          KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 448 & 449
 965          HC       2
              * DDM   ***** Preserved *****

 966          KK   R6364
 967          KM   ROUTE FLOW FROM C116 AND SUB-BASINS 448 AND 449
 968          RS       5    FLOW      -1
 969          RC     .05    .035     .05    4375   .0333
 970          RX    1000    1027    1053    1080    1090    1117    1143    1170
 971          RY      15   13.33   11.67      10      10   11.67   13.33      15
              * DDM   ***** Preserved *****

 972          KK     450
 973          KM   SUB-BASIN 450
 974          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 975          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
 976          KM     L =  .85  Kb = .057  Adj. Slope =  210.5
 977          BA    .070
 978          LG    .340    .350   3.630    .570   4.000
 979          UC    .346    .455
 980          UA       0       3       5       8      12      20      43      75      90      96
 981          UA     100
              * DDM   ***** Preserved *****

 982          KK     451
 983          KM   SUB-BASIN 451
 984          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 985          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
 986          KM     L =  .57  Kb = .063  Adj. Slope =  175.0
 987          BA    .025
 988          LG    .340    .340   3.290    .750   3.000
 989          UC    .321    .547
 990          UA       0       3       5       8      12      20      43      75      90      96
 991          UA     100
              * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE 26

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

 992          KK    RT66
 993          KM        RETRIEVE DIVERTED FLOW FROM SUB-BASIN 66
 994          DR   WSH66
              * DDM   ***** Preserved *****

 995          KK     452
 996          KM   SUB-BASIN 452
 997          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 998          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
 999          KM     L =  .43  Kb = .055  Adj. Slope =  315.0
1000          BA    .040
1001          LG    .260    .280   3.700    .550   9.000
1002          UC    .188    .184
1003          UA       0       5      16      30      65      77      84      90      94      97
1004          UA     100
              * DDM   ***** Preserved *****

1005          KK   C6465
1006          KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 443 AND 452
1007          HC       2
              * DDM   ***** Preserved *****

1008          KK   R6566
1009          KM        ROUTE FLOW FROM DIVERSIONS 65 AND 66 TO C116
1010          RS       2    FLOW      -1
1011          RC     .05    .035     .05    2435   .0282
1012          RX    1000    1045    1090    1150    1160    1220    1265    1310
1013          RY      25      23      20      10      10      20      23      25
              * DDM   ***** Preserved *****
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1014          KK    C116
1015          KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 450 & 451 AND R6364 & R6465
1016          HC       4
              * DDM   ***** Preserved *****

1017          KK  BASIN5
1018          KM        RESERVOIR WITHIN PARCEL 31      2-48 INCH PIPES AT OUTFALL
1019          KM        BASIN 5 FEET DEEP
1020          RS       1    ELEV       0
1021          SV       0     4.5     9.9
1022          SQ       0      69     190
1023          SE       0     2.5       5
              * DDM   ***** Preserved *****

1024          KK    R116
1025          KM   ROUTE FLOW FROM C116 TO C117
1026          RS       2    FLOW      -1
1027          RC     .05    .035     .05    1300   .0333
1028          RX    1000    1100    1200    1300    1320    1420    1520    1620
1029          RY      13      12      11      10      10      11      12      13
              * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                                    PAGE 27

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


1030          KK     453
1031          KM   SUB-BASIN 453
1032          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1033          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
1034          KM     L =  .58  Kb = .058  Adj. Slope =  138.0
1035          BA    .060
1036          LG    .290    .300   3.290    .820  18.000
1037          UC    .321    .337
1038          UA       0       5      16      30      65      77      84      90      94      97
1039          UA     100
              * DDM   ***** Preserved *****

1040          KK    C117
1041          KM   COMBINE HYDROGRAPHS FROM SUB-BASIN 453 AND R116
1042          HC       2
              * DDM   ***** Preserved *****

1043          KK    C118
1044          KM   COMBINE HYDROGRAPHS FROM R115 AND C117
1045          HC       2
              * DDM   ***** Preserved *****

1046          KK    R118
1047          KM        ROUTE FLOW FROM C118 TO  DIV7
1048          RS       1    FLOW      -1
1049          RC    .019    .019    .019    1500    .024
1050          RX    1000    1012    1016    1020    1035    1039    1043    1055
1051          RY      15      12      11      10      10      11      12      15
              * DDM   ***** Preserved *****

1052          KK    DIV7
1053          KM        OFFLINE BASIN AT NORTH MOUNTAIN RIDGE   FLOWS ENTER BASIN OVER
1054          KM        30' WEIR SET AT 5.3' ABOVE THE CHANNEL BOTTOM
              *      1
1055          DT  BASIN6
1056          DI       0     363     487     563     645     844
1057          DQ       0       3      47      83     125     244
              * DDM   ***** Preserved *****

1058          KK  RTDIV7
1059          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
1060          DR  BASIN6
              * DDM   ***** Preserved *****

1061          KK  RFDIV7
1062          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
1063          KM     3.6 ACRE-FEETx43560/36x3600=1.2cfs
1064          RS       1    STOR       0
1065          SV       0     .01     3.6
1066          SQ       0     1.2     1.2
              * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                                    PAGE 28

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


1067          KK   CDIV7
1068          KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
1069          HC       2
              * DDM   ***** Preserved *****

1070          KK     454
1071          KM   SUB-BASIN 454
1072          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1073          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1074          KM     L = 1.23  Kb = .051  Adj. Slope =  163.0
1075          BA    .180
1076          LG    .300    .310   3.780    .560  14.000
1077          UC    .438    .464
1078          UA       0       5      16      30      65      77      84      90      94      97
1079          UA     100
              * DDM   ***** Preserved *****

1080          KK    C119
1081          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 454 AND C119
              *      1       2
1082          HC       2
              * DDM   ***** Preserved *****

1083          KK    R454
1084          KM   ROUTE FLOW FROM C119 TO 415C
1085          RS       8    FLOW      -1
1086          RC    .045    .035    .045    6000    .005
1087          RX    1000    1010    1020    1036    1041    1057    1067    1077
1088          RY      15    14.5      14      10      10      14    14.5      15
              * DDM   ***** Preserved *****
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1089          KK     415
1090          KM   SUB-BASIN 415
1091          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1092          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
1093          KM     L = 2.10  Kb = .046  Adj. Slope =  266.0
1094          BA    .448
1095          LG    .310    .270   4.250    .480  15.000
1096          UC    .463    .450
1097          UA       0       5      16      30      65      77      84      90      94      97
1098          UA     100
              * DDM   ***** Preserved *****

1099          KK   RT385
1100          KM   RETRIEVE FLOW FROM DIVERSION OF SUB-BASIN 385 INTO SUB-BASIN 415
1101          DR   SF385
              * DDM   ***** Preserved *****

1102          KK   RR385
1103          KM   ROUTING OF SPLIT FLOW FROM SUB-BASIN 385 TO SUB-BASIN 415
1104          RS       6    FLOW      -1
1105          RC    .045    .045    .045    5878    .024
1106          RX       0       1       2      14      19      31      32      33
1107          RY       4       4       4       0       0       4       4       4
              * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                                    PAGE 29

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


1108          KK    415C
1109          KM   HYDROGRAPH COMBINATION OF SUB-BASINS 415, R454 & SPLIT FLOW FROM 385
1110          HC       3
              * DDM   ***** Preserved *****

1111          KK    R415
1112          KM   ROUTING OF FLOW FROM 415C TO 455C
1113          RS       3    FLOW      -1
1114          RC    .045    .045    .045    3900    .021
1115          RX       0       1       2      14      44      56      57      58
1116          RY       4       4       4       0       0       4       4       4
              * DDM   ***** Preserved *****

1117          KK     455
1118          KM   SUB-BASIN 455
1119          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1120          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .993
1121          KM     L = 1.70  Kb = .041  Adj. Slope =  146.0
1122          BA   1.111
1123          LG    .270    .280   3.700    .640  24.000
1124          UC    .479    .235
1125          UA       0       5      16      30      65      77      84      90      94      97
1126          UA     100
              * DDM   ***** Preserved *****

1127          KK    D455
1128          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
1129          KM   DETENTION/RETENTION BASINS LOCATED WITHIN LAS SENDAS ADDENDUM III
1130          KM   FOR BASIN #: 30      34      43      47&58
1131          KM        MAXIMUM VOLUME DIVERSION = 74.1 acre-feet
              *      1
1132          DT   BS455    74.1
1133          DI       0   10000
1134          DQ       0   10000
              * DDM   ***** Preserved *****

1135          KK   RT455
1136          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
1137          DR   BS455
              * DDM   ***** Preserved *****

1138          KK   SR455
1139          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
1140          KM    74.1 ACRE-FEETx43560/36x3600=25cfs
1141          RS       1    STOR       0
1142          SV       0     .01    74.1
1143          SQ       0      25      25
              * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                                    PAGE 30

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


1144          KK    C455
1145          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 455 AND DIVERTED BASIN STORAGE OF 455
1146          HC       2
              * DDM   ***** Preserved *****

1147          KK    455C
1148          KM  HYDROGRAPH COMBINATION OF 420C, R415 AND C455
              *      1       2
1149          HC       3
              * DDM   ***** Preserved *****

1150          KK   SR440
1151          KM   SPOOK HILL FRS PLANS DATED 6/15/77
1152          KM   OUTLET PIPE=7'x7.5'RCBC; L=70 INLET INV.=1566; OUTLET INV.=1566
1153          KM   EMERGENCY SPILLWAY ELEV.=1582; PRINCIPLE SPILLWAY ELEV.=1577.5
1154          KM   STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 200 ACRE-FEET
1155          RS       1    STOR       0
1156          SV       0      10     100     300     500     680
1157          SQ       0     640     720     780     825     860
1158          SE      66    77.5      79    80.2    81.2      82
              * DDM   ***** Preserved *****

1159          KK   RR455
1160          KM   ROUTE FLOW FROM SPOOK HILL FRS TO SUB-BASIN 462
1161          RS       9    FLOW      -1
1162          RC    .035    .025    .035    9200    .002
1163          RX       0       1       2      28      58      84      85      86
1164          RY    13.5    13.5    13.5       0       0    13.5    13.5    13.5
              * DDM   ***** Preserved *****

1165          KK     456
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1166        KM   SUB-BASIN 456
1167        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1168        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
1169        KM     L =  .94  Kb = .045  Adj. Slope =  315.0
1170        BA    .260
1171        LG    .300    .380   5.600    .200  12.000
1172        UC    .237    .154
1173        UA       0       5      16      30      65      77      84      90      94      97
1174        UA     100
            * DDM   ***** Preserved *****

1175        KK    DIV1
1176        KM        DIVERT FLOW INTO OFFLINE DETENTION BASIN
1177        KM        WEIR FOR BASIN SET AT 4 FEET ABOVE CHANNEL BOTTOM
            *      1
1178        DT  BASIN1
1179        DI       0    11.1   127.9   234.4   577.7   789.9  1025.5  1280.9  1555.7
1180        DQ       0       0       0    47.7     248   381.8   533.6   701.5     884
            * DDM   ***** Preserved *****
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LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1181        KK    DIV2
1182        KM        SPLIT OUT FLOW FOR WASHES THAT FLOW TO THE SOUTH FROM
1183        KM        WASHES THAT DRAIN TO THE WES, SOUTHERN WASHES FED BY 30" & 24" PIPE
1184        DT    WA30
1185        DI       0    11.1   127.9   189.6   329.7     408   491.9   579.4   671.7
1186        DQ       0    11.1    38.4    48.2      63    69.5      76      81      86
            * DDM   ***** Preserved *****

1187        KK    R456
1188        KM        ROUTE FLOW FROM SUB-BASIN 51 TO C101
1189        RS       2    FLOW      -1
1190        RC     .05    .035     .05    3800    .044
1191        RX    1000    1010    1020    1036    1041    1057    1067    1077
1192        RY   14.88   14.44      14      10      10      14   14.44   14.88
            * DDM   ***** Preserved *****

1193        KK     457
1194        KM   SUB-BASIN 457
1195        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1196        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1197        KM     L = 1.01  Kb = .045  Adj. Slope =  308.8
1198        BA    .190
1199        LG    .270    .330   3.950    .460   6.000
1200        UC    .262    .218
1201        UA       0       5      16      30      65      77      84      90      94      97
1202        UA     100
            * DDM   ***** Preserved *****

1203        KK    C101
1204        KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 50 AND 51
1205        HC       2
            * DDM   ***** Preserved *****

1206        KK    DIV3
1207        KM        RESERVOIR AT THE EDGE OF THE PROPERTY   FLOW FROM CHANNEL
1208        KM        DIVERTED  INTO OFFLINE BASIN A 25' WEIR SET AT ELEVATION 1808 FT
            *      1
1209        DT  BASIN2
1210        DI       0      36      70     110     180   313.5     402   500.9
1211        DQ       0       0       0       0       0    67.5     124   190.9
            * DDM   ***** Preserved *****

1212        KK  RTDIV3
1213        KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
1214        DR  BASIN2
            * DDM   ***** Preserved *****

1215        KK  RFDIV3
1216        KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
1217        KM     5.0 ACRE-FEETx43560/36x3600=1.7cfs
1218        RS       1    STOR       0
1219        SV       0     .01       5
1220        SQ       0     1.7     1.7
            * DDM   ***** Preserved *****
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LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1221        KK   CDIV3
1222        KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
1223        HC       2
            * DDM   ***** Preserved *****

1224        KK    R101
1225        KM        ROUTE FLOW FROM SUBBASIN C101 TO C103
1226        RS       1    FLOW      -1
1227        RC     .05    .035     .05    1450     .05
1228        RX    1000    1010    1020    1036    1041    1057    1067    1077
1229        RY      15    14.5      14      10      10      14    14.5      15
            * DDM   ***** Preserved *****

1230        KK     458
1231        KM   SUB-BASIN 458
1232        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1233        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1234        KM     L =  .76  Kb = .048  Adj. Slope =  299.0
1235        BA    .190
1236        LG    .290    .330   5.800    .190   6.000
1237        UC    .225    .146
1238        UA       0       5      16      30      65      77      84      90      94      97
1239        UA     100
            * DDM   ***** Preserved *****

1240        KK    C103
1241        KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 55 AND C101
1242        HC       2
            * DDM   ***** Preserved *****
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1243          KK    R103
1244          KM        ROUTE FLOW FROM SUBBASIN C103 TO C106
1245          RS       1    FLOW      -1
1246          RC     .05    .035     .05     900     .03
1247          RX    1000    1010    1020    1030    1050    1060    1070    1080
1248          RY   13.16   12.83    12.5      10      10    12.5   12.83   13.16
              * DDM   ***** Preserved *****

1249          KK    RT30
1250          KM        RETRIEVE DIVERTED FLOW FOR WASH BELOW 30 INCH PIPE
1251          DR    WA30
              * DDM   ***** Preserved *****

1252          KK     R30
1253          KM        ROUTE FLOW FROM WASH DIVERSION TO COMBINE C52
1254          RS       1    FLOW      -1
1255          RC     .05    .035     .05    1630     .05
1256          RX    1000    1010    1020    1036    1041    1057    1067    1077
1257          RY      15    14.5      14      10      10      14    14.5      15
              * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                                    PAGE 33

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


1258          KK    RTB1
1259          KM        RETRIEVE DIVERTED FLOW FROM BASIN 1
              *      1       2
1260          DR  BASIN1
              * DDM   ***** Preserved *****

1261          KK      B1
1262          KM        ROUTE FLOW THROUGH OFFLINE DETENTION BASIN
1263          KM        FLOW OUTLETS THROUGH A 30 INCH OUTLET PIPE
              *      1       2
1264          RS       1    ELEV       0
1265          SV              .7     1.4     2.3     2.7     3.2
1266          SQ       0       5      16      28    32.5      37
1267          SE       0       1       2       3     3.5       4
              * DDM   ***** Preserved *****

1268          KK     RB1
1269          KM        ROUTE FLOW FROM BASIN DIVERSION TO COMBINE C52
1270          RS       2    FLOW      -1
1271          RC     .05    .035     .05    1720     .05
1272          RX    1000    1010    1020    1036    1041    1057    1067    1077
1273          RY      15    14.5      14      10      10      14    14.5      15
              * DDM   ***** Preserved *****

1274          KK    CDIV
1275          KM        COMBINE FLOWS FROM WA30 AND BASIN 1
1276          HC       2     .12
              * DDM   ***** Preserved *****

1277          KK     459
1278          KM   SUB-BASIN 459
1279          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1280          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
1281          KM     L =  .35  Kb = .052  Adj. Slope =  251.6
1282          BA    .030
1283          LG    .220    .300   3.330    .710   8.000
1284          UC    .179    .175
1285          UA       0       5      16      30      65      77      84      90      94      97
1286          UA     100
              * DDM   ***** Preserved *****

1287          KK     C52
1288          KM        COMBINE FLOWS FROM SUB-BASIN 52 WA30 AND BASIN 1
1289          HC       2
              * DDM   ***** Preserved *****

1290          KK     R52
1291          KM        ROUTE FLOW FROM SUBBASIN 52 TO C102
1292          RS       2    FLOW      -1
1293          RC     .05    .035     .05    2000     .05
1294          RX    1000    1010    1020    1036    1041    1057    1067    1077
1295          RY      15    14.5      14      10      10      14    14.5      15
              * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                                    PAGE 34

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


1296          KK     460
1297          KM   SUB-BASIN 460
1298          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1299          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1300          KM     L =  .62  Kb = .058  Adj. Slope =  194.0
1301          BA    .140
1302          LG    .250    .260   3.740    .690  27.000
1303          UC    .271    .182
1304          UA       0       5      16      30      65      77      84      90      94      97
1305          UA     100
              * DDM   ***** Preserved *****

1306          KK    C102
1307          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 52 AND 53
1308          HC       2
              * DDM   ***** Preserved *****

1309          KK  BASIN3
1310          KM        RESERVOIR AT CLUBHOUSE LOCATION 1-30 INCH PIPE AT OUTFALL
1311          KM        BOTTOM OF BASIN AT 6 FEET ABOVE 1795 ELEVATION
1312          RS       1    ELEV       0
1313          SA       0       0       0       0     .34    1.59    1.81    1.96    2.13     2.3
              *      0       0       0       0    1.14    3.25    5.52    9.23
1314          SQ       0      22      45    47.4      48      51      57      62      67      73
1315          SE    1795  1797.5    1800  1800.4  1800.5    1801    1802    1803    1804  1805.5
              * DDM   ***** Preserved *****

1316          KK      R3
1317          KM        ROUTE FLOW FROM C102 to C106
1318          RS       8    FLOW      -1
```

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1319          RC      .05      .03      .05     2750    .0375
1320          RX     1000     1010     1020     1052     1086     1118     1128     1138
1321          RY     19.2     18.4       18       10       10       18     18.4     19.2
              * DDM   ***** Preserved *****

1322          KK      461
1323          KM   SUB-BASIN 461
1324          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1325          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1326          KM     L =  .83  Kb = .052  Adj. Slope =  181.0
1327          BA    .120
1328          LG    .270    .250   4.250    .450  21.000
1329          UC    .304    .285
1330          UA       0       5      16      30      65      77      84      90      94      97
1331          UA     100
              * DDM   ***** Preserved *****

1332          KK    C104
1333          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 54 AND R102
1334          HC       2
              * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE 35

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

1335          KK    C106
1336          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN C103 AND C104
1337          HC       2
              * DDM   ***** Preserved *****

1338          KK    R106
1339          KM        ROUTE FLOW FROM C106 TO C49
1340          RS       2    FLOW      -1
1341          RC     .05    .035     .05    3950    .033
1342          RX    1000    1010    1020    1030    1050    1060    1070    1080
1343          RY   13.16   12.83    12.5      10      10    12.5   12.83   13.16
              * DDM   ***** Preserved *****

1344          KK     462
1345          KM   SUB-BASIN 462
1346          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1347          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
1348          KM     L =  .97  Kb = .045  Adj. Slope =  297.7
1349          BA    .301
1350          LG    .300    .330   5.300    .240  12.000
1351          UC    .246    .151
1352          UA       0       5      16      30      65      77      84      90      94      97
1353          UA     100
              * DDM   ***** Preserved *****

1354          KK     C56
1355          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 56 AND C106
              *      1       2
1356          HC       2
              * DDM   ***** Preserved *****

1357          KK     480
1358          KM   SUB-BASIN 480
1359          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1360          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
1361          KM     L = 1.21  Kb = .042  Adj. Slope =  165.0
1362          BA    .731
1363          LG    .270    .270   3.580    .730  27.000
1364          UC    .371    .171
1365          UA       0       5      16      30      65      77      84      90      94      97
1366          UA     100
              * DDM   ***** Preserved *****

1367          KK    D480
1368          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
1369          KM   DETENTION/RETENTION BASINS LOCATED WITHIN LAS SENDAS ADDENDUM III
1370          KM   FOR BASIN #: 18 & 26
1371          KM        MAXIMUM VOLUME DIVERSION = 16.5 acre-feet
              *      1
1372          DT   BS480    16.5
1373          DI       0   10000
1374          DQ       0   10000
              * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE 36

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

1375          KK   RT480
1376          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
1377          DR   BS480
              * DDM   ***** Preserved *****

1378          KK   SR480
1379          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
1380          KM    16.5 ACRE-FEETx43560/36x3600=5.5cfs
1381          RS       1    STOR       0
1382          SV       0     .01    16.5
1383          SQ       0     5.6     5.6
              * DDM   ***** Preserved *****

1384          KK    C480
1385          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
1386          HC       2
              * DDM   ***** Preserved *****

1387          KK    480C
1388          KM   HYDROGRAPH COMBINATION FOR THE ENTIRE WATERSHED AT THE SALT RIVER
1389          HC       3    2.09
              * DDM   ***** Preserved *****

1390          KK   RR480
1391          KM   ROUTE FLOW FROM SUB-BASIN 480 TO SUB-BASIN 500
1392          RS       2    FLOW      -1
1393          RC    .025    .025    .025    6500     .05
1394          RX       0       1       2      28      58      84      85      86
1395          RY    13.5    13.5    13.5       0       0    13.5    13.5    13.5
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* DDM   ***** Preserved *****

KK     500
KM   SUB-BASIN 500
KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
KM     L = 2.77  Kb = .042  Adj. Slope =  286.8
BA    .930
LG    .350    .400   6.000    .170   9.000
UC    .471    .378
UA      0       3       5       8      12      20      43      75      90      96
UA     100
* DDM   ***** Preserved *****

KK    500C
KM   HYDROGRAPH COMBINATION FOR THE ENTIRE WATERSHED AT THE SALT RIVER
HC       2    2.84
ZZ
```

SCHEMATIC DIAGRAM OF STREAM NETWORK

```
INPUT
 LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

  NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

  48          10
               V
               V
  58         R10
               .
               .
  64           .          20
               .           .
               .           .
  74         C20............
               .
               .
  77           .          40
               .           .
               .           .
  87           .           .          60
               .           .           .
               .           .           .
  97         60C........................
               V
               V
 100        SR60
               V
               V
 109         R60
               V
               V
 115        RR60
               .
               .
 121           .          80
               .           .
               .           .
 131         80C............
               V
               V
 134         R80
               .
               .
 140           .         100
               .           .
               .           .
 150        100C............
               V
               V
 153        R100
               .
               .
 159           .         120
               .           .
               .           .
 169        120C............
               V
               V
 172        R120
               .
               .
 178           .         140
               .           .
               .           .
 188           .           .         150
               .           .           V
               .           .           V
 198           .           .        R150
               .           .           .
               .           .           .
 204           .           .           .         160
               .           .           .           .
               .           .           .           .
 214           .           .           .           .         180
               .           .           .           .           .
               .           .           .           .           .
 224        180C..............................................
               .
               .
 227           .         240
               .           V
               .           V
 237           .        R240
               .           .
               .           .
 244           .           .         210
               .           .           V
               .           .           V
 254           .           .        R210
               .           .           .
               .           .           .
 260           .           .           .         220
               .           .           .           .
               .           .           .           .
 270           .        220C........................
               .           V
               .           V
 273           .        R220
               .           .
               .           .
 280           .           .         190
               .           .           V
               .           .           V
 290           .           .        R190
               .           .           .
               .           .           .
 296           .           .           .         200
               .           .           .           .
               .           .           .           .
 306           .        200C........................
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              .          V
              .          V
309           .       R200
              .          .
              .          .
315        C180............
              V
              V
318       SR180
              V
              V
327        R180
              .
              .
333           .        260
              .          .
              .          .
343        260C...........
              V
              V
346        R260
              .
              .
352           .        280
              .          .
              .          .
362        280C...........
              V
              V
365        R280
              .
              .
371           .        300
              .          .
              .          .
381        300C...........
              V
              V
384        R300
              V
              V
390       RR300
              .
              .
396           .        350
              .          .
              .          .
409           .          .-------->   SF350
406           .       D350
              .          V
              .          V
412           .       350R
              .          .
              .          .
418           .          .        310
              .          .          .
              .          .          .
428           .       C310...........
              .          V
              .          V
431           .       R310
              .          .
              .          .
437           .          .        320
              .          .          .
              .          .          .
452           .          .          .-------->   BS320
447           .          .       D320
              .          .          .
              .          .          .
457           .          .          .          .<--------   BS320
455           .          .          .      RT320
              .          .          .          V
              .          .          .          V
458           .          .          .      SR320
              .          .          .          .
              .          .          .          .
464        C320...................................
              .
              .
467           .        340
              .          .
              .          .
484           .          .-------->   BS340
479           .       D340
              .          .
              .          .
489           .          .          .<--------   BS340
487           .          .      RT340
              .          .          V
              .          .          V
490           .          .      SR340
              .          .          .
              .          .          .
496        C340........................
              .
              .
501           .          .<--------   SF350
499           .      RT350
              .          V
              .          V
502           .      RR350
              .          .
              .          .
508           .          .        355
              .          .          .
              .          .          .
518           .       C355...........
              .          V
              .          V
521           .       R355
              .          .
              .          .
```

```
527          .          .        370
             .          .          V
             .          .          V
537          .          .       R370
             .          .          .
             .          .          .
543          .          .          .         360
             .          .          .           .
             .          .          .           .
557          .          .          .           .-------->   BS360
553          .          .          .        D360
             .          .          .           .
             .          .          .           .
562          .          .          .           .           .<-------   BS360
560          .          .          .           .       RT360
             .          .          .           .           V
             .          .          .           .           V
563          .          .          .           .       SR360
             .          .          .           .           .
             .          .          .           .           .
569       360C.............................................
             .
             .
572          .        395
             .          V
             .          V
582          .       R395
             .          .
             .          .
588          .          .        380
             .          .          .
             .          .          .
604          .          .          .-------->   BS380
600          .          .       D380
             .          .          .
             .          .          .
609          .          .          .           .<-------   BS380
607          .          .          .       RT380
             .          .          .           V
             .          .          .           V
610          .          .          .       SR380
             .          .          .           .
             .          .          .           .
616       380C...................................
             .
             .
619          .        390
             .          .
             .          .
633          .          .-------->   BS390
629          .       D390
             .          .
             .          .
638          .          .          .<-------   BS390
636          .          .      RT390
             .          .          V
             .          .          V
639          .          .      SR390
             .          .          .
             .          .          .
645          .       390C............
             .          V
             .          V
648          .      RR390
             .          .
             .          .
654          .          .        400
             .          .          .
             .          .          .
670          .          .          .-------->   BS400
666          .          .       D400
             .          .          .
             .          .          .
675          .          .          .           .<-------   BS400
673          .          .          .       RT400
             .          .          .           V
             .          .          .           V
676          .          .          .       SR400
             .          .          .           .
             .          .          .           .
682          .          .       C400............
             .          .          .
             .          .          .
685       400C........................
             .
             .
688          .        385
             .          .
             .          .
700          .          .-------->   SF385
698          .       D385
             .          V
             .          V
703          .       385R
             .          .
             .          .
709          .          .        420
             .          .          .
             .          .          .
725          .          .          .-------->   BS420
721          .          .       D420
             .          .          .
             .          .          .
730          .          .          .           .<-------   BS420
728          .          .          .       RT420
             .          .          .           V
             .          .          .           V
731          .          .          .       SR420
             .          .          .           .
             .          .          .           .
737       420C...................................
             .
             .
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```
740          .        440
             .          V
             .          V
750          .        R70
             .          .
             .          .
756          .          .        441
             .          .          .
             .          .          .
766          .       C108...........
             .          .
             .          .
771          .          .------->   SPLIT
769          .       DIV4
             .          V
             .          V
774          .       R108
             .          .
             .          .
780          .          .        442
             .          .          .
             .          .          .
790          .        C67...........
             .          .
             .          .
796          .          .------->  BASIN4
793          .       DIV6
             .          .
             .          .
801          .          .          .<-------  BASIN4
799          .          .     RTDIV6
             .          .          V
             .          .          V
802          .          .     RFDIV6
             .          .          .
             .          .          .
808          .      CDIV6...........
             .          .
             .          .
811          .          .        443
             .          .          .
             .          .          .
824          .          .          .------->   WSH66
821          .          .      DIV66
             .          .          V
             .          .          V
827          .          .       R113
             .          .          .
             .          .          .
833          .       C114...........
             .          .
             .          .
836          .          .        444
             .          .          V
             .          .          V
846          .          .        R58
             .          .          .
             .          .          .
852          .          .          .        445
             .          .          .          .
             .          .          .          .
862          .          .       C107...........
             .          .          V
             .          .          V
865          .          .       R107
             .          .          .
             .          .          .
873          .          .          .          .<-------   SPLIT
871          .          .          .       RTB2
             .          .          .          V
             .          .          .          V
874          .          .          .     RSPLIT
             .          .          .          .
             .          .          .          .
880          .          .          .          .        446
             .          .          .          .          .
             .          .          .          .          .
890          .          .       C109......................
             .          .          .
             .          .          .
896          .          .          .-------> WSH404
893          .          .       DIV5
             .          .          V
             .          .          V
899          .          .       R109
             .          .          .
             .          .          .
905          .          .          .        447
             .          .          .          .
             .          .          .          .
917          .          .          .          .          .<-------  WSH404
915          .          .          .          .      RT404
             .          .          .          .          V
             .          .          .          .          V
918          .          .          .          .       R404
             .          .          .          .          .
             .          .          .          .          .
924          .          .       C110......................
             .          .          V
             .          .          V
927          .          .       R110
             .          .          .
             .          .          .
933          .       C115...........
             .          V
             .          V
936          .       R115
             .          .
             .          .
943          .          .        448
             .          .          .
             .          .          .
953          .          .          .        449
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```
963          C6364............
                 V
                 V
966          R6364

972                     450

982                             451

994                                                  .<-------   WSH66
992                                              RT66
995                                                                452
1005                                             C6465............
                                                     V
                                                     V
1008                                             R6566

1014         C116.................................
                 V
                 V
1017       BASIN5
                 V
                 V
1024         R116

1030                    453

1040         C117............

1043       C118............
               V
               V
1046       R118

1055       .------->  BASIN6
1052       DIV7

1060                 .<-------  BASIN6
1058       RTDIV7
                 V
                 V
1061       RFDIV7

1067     CDIV7............

1070           454

1080       C119............
               V
               V
1083       R454

1089           415

1101                                     .<-------   SF385
1099                               RT385
                                       V
                                       V
1102                               RR385

1108       415C........................
               V
               V
1111       R415

1117           455

1132                 .------->   BS455
1127         D455

1137                                     .<-------   BS455
1135                               RT455
                                       V
                                       V
1138                               SR455

1144         C455............

1147     455C........................
             V
             V
1150     SR440
             V
             V
1159     RR455
```

```
1165          .        456
              .          .
              .          .
1178          .          .-------> BASIN1
1175          .      DIV1
              .          .
              .          .
1184          .          .------->   WA30
1181          .      DIV2
              .         V
              .         V
1187          .      R456
              .          .
              .          .
1193          .          .        457
              .          .          .
              .          .          .
1203          .      C101............
              .          .
              .          .
1209          .          .-------> BASIN2
1206          .      DIV3
              .          .
              .          .
1214          .          .          .<-------  BASIN2
1212          .          .     RTDIV3
              .          .          V
              .          .          V
1215          .          .     RFDIV3
              .          .          .
              .          .          .
1221          .     CDIV3............
              .         V
              .         V
1224          .      R101
              .          .
              .          .
1230          .          .        458
              .          .          .
              .          .          .
1240          .      C103............
              .         V
              .         V
1243          .      R103
              .          .
              .          .
1251          .          .          .<-------   WA30
1249          .          .       RT30
              .          .          V
              .          .          V
1252          .          .       R30
              .          .          .
              .          .          .
1260          .          .          .          .<-------  BASIN1
1258          .          .          .      RTB1
              .          .          .         V
              .          .          .         V
1261          .          .          .        B1
              .          .          .         V
              .          .          .         V
1268          .          .          .       RB1
              .          .          .         .
              .          .          .         .
1274          .          .       CDIV............
              .          .          .
              .          .          .
1277          .          .          .       459
              .          .          .         .
              .          .          .         .
1287          .          .       C52............
              .          .          V
              .          .          V
1290          .          .       R52
              .          .          .
              .          .          .
1296          .          .          .       460
              .          .          .         .
              .          .          .         .
1306          .          .       C102............
              .          .          V
              .          .          V
1309          .          .     BASIN3
              .          .          V
              .          .          V
1316          .          .        R3
              .          .          . .
              .          .          .
1322          .          .          .       461
              .          .          .         .
              .          .          .         .
1332          .          .       C104............
              .          .          .
              .          .          .
1335          .      C106............
              .         V
              .         V
1338          .      R106
              .          .
              .          .
1344          .          .        462
              .          .          .
              .          .          .
1354          .       C56............
              .          .
              .          .
1357          .          .        480
              .          .          .
              .          .          .
1372          .          .          .------->  BS480
1367          .          .       D480
              .          .          .
              .          .          .
1377          .          .          .          .<-------  BS480
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1375          .          .          .      RT480
              .          .          .          V
              .          .          .          V
1378          .          .          .      SR480
              .          .          .          .
              .          .          .          .
1384          .          .       C480...........
              .          .          .
              .          .          .
1387       480C......................
              V
              V
1390      RR480
              .
              .
1396          .        500
              .          .
              .          .
1406       500C...........
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(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

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

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	10	699.	12.30	86.	24.	12.	.70		
+	ROUTED TO	R10	606.	12.67	86.	24.	12.	.70		
+	HYDROGRAPH AT	20	597.	12.53	91.	23.	11.	1.12		
+	2 COMBINED AT	C20	1141.	12.63	175.	47.	22.	1.82		
+	HYDROGRAPH AT	40	1677.	12.37	180.	48.	23.	2.23		
+	HYDROGRAPH AT	60	1013.	12.47	167.	45.	22.	1.75		
+	3 COMBINED AT	60C	3267.	12.47	513.	137.	66.	5.80		
+	ROUTED TO	SR60	88.	14.63	88.	85.	65.	5.80		
+	ROUTED TO	R60	88.	14.63	88.	85.	65.	5.80		
+	ROUTED TO	RR60	88.	14.73	88.	85.	65.	5.80		
+	HYDROGRAPH AT	80	1289.	12.30	130.	34.	16.	1.48		
+	2 COMBINED AT	80C	1361.	12.30	213.	117.	81.	1.48		
+	ROUTED TO	R80	1349.	12.33	213.	117.	81.	1.48		
+	HYDROGRAPH AT	100	257.	12.27	42.	11.	5.	.48		
+	2 COMBINED AT	100C	1588.	12.33	252.	127.	86.	1.96		
+	ROUTED TO	R100	1587.	12.33	252.	127.	86.	1.96		
+	HYDROGRAPH AT	120	2361.	12.30	246.	67.	32.	2.20		
+	2 COMBINED AT	120C	3881.	12.30	488.	188.	117.	4.16		
+	ROUTED TO	R120	3842.	12.33	488.	188.	117.	4.16		
+	HYDROGRAPH AT	140	400.	12.17	44.	12.	6.	.60		
+	HYDROGRAPH AT	150	393.	12.20	35.	9.	5.	.41		
+	ROUTED TO	R150	317.	12.57	35.	9.	5.	.41		
+	HYDROGRAPH AT	160	123.	12.50	24.	6.	3.	.37		
+	HYDROGRAPH AT	180	455.	12.47	61.	15.	7.	1.00		
+	5 COMBINED AT	180C	4550.	12.33	642.	227.	136.	6.54		
+	HYDROGRAPH AT	240	507.	12.40	74.	19.	9.	1.04		
+	ROUTED TO	R240	498.	12.50	74.	19.	9.	1.04		
+	HYDROGRAPH AT	210	815.	12.20	104.	27.	13.	.58		
+	ROUTED TO	R210	754.	12.30	104.	27.	13.	.58		
+	HYDROGRAPH AT	220	765.	12.20	68.	17.	8.	.69		
+	3 COMBINED AT	220C	1664.	12.30	242.	62.	30.	2.31		
	ROUTED TO	R220	1633.	12.37	242.	62.	30.	2.31		
	HYDROGRAPH AT	190	998.	12.20	85.	23.	11.	.92		
+	ROUTED TO	R190	903.	12.37	84.	23.	11.	.92		
+	HYDROGRAPH AT	200	984.	12.20	83.	22.	11.	.92		

+	3 COMBINED AT	200C	3164.	12.33	403.	105.	51.	4.14
+	ROUTED TO	R200	3139.	12.33	403.	105.	51.	4.14
	2 COMBINED AT	C180	7586.	12.33	1029.	325.	185.	10.68
+	ROUTED TO	SR180	135.	15.73	135.	134.	108.	10.68
+	ROUTED TO	R180	135.	15.73	135.	134.	108.	10.68
+	HYDROGRAPH AT	260	314.	12.13	33.	9.	4.	.27
+	2 COMBINED AT	260C	423.	12.13	164.	143.	114.	.27
+	ROUTED TO	R260	406.	12.20	164.	143.	113.	.27
+	HYDROGRAPH AT	280	339.	12.10	32.	9.	4.	.30
+	2 COMBINED AT	280C	713.	12.17	193.	150.	117.	.57
+	ROUTED TO	R280	689.	12.23	193.	150.	117.	.57
+	HYDROGRAPH AT	300	530.	12.27	77.	21.	10.	.99
+	2 COMBINED AT	300C	1205.	12.23	267.	169.	126.	1.56
+	ROUTED TO	R300	1180.	12.30	267.	169.	126.	1.56
+	ROUTED TO	RR300	1160.	12.37	267.	169.	125.	1.56
+	HYDROGRAPH AT	350	783.	12.27	71.	19.	9.	.97
+	DIVERSION TO	SF350	470.	12.27	43.	11.	5.	.97
+	HYDROGRAPH AT	D350	313.	12.27	29.	7.	4.	.97
	ROUTED TO	350R	284.	12.43	29.	7.	4.	.97
+	HYDROGRAPH AT	310	215.	12.40	33.	8.	4.	.56
+	2 COMBINED AT	C310	496.	12.43	61.	16.	7.	.94
+	ROUTED TO	R310	442.	12.73	61.	16.	7.	.94
+	HYDROGRAPH AT	320	620.	12.23	90.	26.	12.	.97
+	DIVERSION TO	BS320	421.	12.07	22.	6.	3.	.97
+	HYDROGRAPH AT	D320	620.	12.23	74.	19.	9.	.97
+	HYDROGRAPH AT	RT320	421.	12.07	22.	6.	3.	.97
+	ROUTED TO	SR320	4.	6.23	4.	4.	3.	.97
+	4 COMBINED AT	C320	1698.	12.33	400.	206.	144.	3.47
+	HYDROGRAPH AT	340	951.	12.23	138.	42.	20.	1.45
+	DIVERSION TO	BS340	951.	12.23	105.	28.	14.	1.45
+	HYDROGRAPH AT	D340	408.	12.70	46.	13.	6.	1.45
+	HYDROGRAPH AT	RT340	951.	12.23	105.	28.	14.	1.45
+	ROUTED TO	SR340	19.	9.90	19.	19.	14.	1.45
+	3 COMBINED AT	C340	1860.	12.70	460.	237.	164.	4.92
	HYDROGRAPH AT	RT350	470.	12.27	43.	11.	5.	.97
	ROUTED TO	RR350	423.	12.43	43.	11.	5.	.97
+	HYDROGRAPH AT	355	300.	12.40	48.	13.	6.	.66
+	2 COMBINED AT	C355	716.	12.43	90.	24.	11.	1.24

+	ROUTED TO R355	633.	12.73	90.	24.	11.	1.24
+	HYDROGRAPH AT 370	378.	12.37	57.	16.	8.	.67
	ROUTED TO R370	336.	12.73	57.	16.	8.	.67
+	HYDROGRAPH AT 360	318.	12.30	62.	19.	9.	.67
+	DIVERSION TO BS360	318.	12.30	54.	14.	7.	.67
+	HYDROGRAPH AT D360	66.	13.50	14.	4.	2.	.67
+	HYDROGRAPH AT RT360	318.	12.30	54.	14.	7.	.67
+	ROUTED TO SR360	10.	10.63	10.	10.	7.	.67
+	5 COMBINED AT 360C	2763.	12.70	619.	286.	190.	7.50
+	HYDROGRAPH AT 395	121.	12.30	18.	5.	2.	.20
+	ROUTED TO R395	104.	12.80	18.	5.	2.	.20
+	HYDROGRAPH AT 380	390.	12.33	69.	19.	9.	.97
+	DIVERSION TO BS380	390.	12.33	56.	14.	7.	.97
+	HYDROGRAPH AT D380	110.	13.27	16.	4.	2.	.97
+	HYDROGRAPH AT RT380	390.	12.33	56.	14.	7.	.97
+	ROUTED TO SR380	10.	11.67	10.	10.	7.	.97
+	4 COMBINED AT 380C	2841.	12.70	657.	304.	201.	8.67
+	HYDROGRAPH AT 390	343.	12.03	25.	7.	4.	.24
	DIVERSION TO BS390	123.	11.87	6.	2.	1.	.24
+	HYDROGRAPH AT D390	343.	12.03	21.	6.	3.	.24
+	HYDROGRAPH AT RT390	123.	11.87	6.	2.	1.	.24
+	ROUTED TO SR390	1.	4.07	1.	1.	1.	.24
+	2 COMBINED AT 390C	344.	12.03	22.	7.	4.	.24
+	ROUTED TO RR390	260.	12.37	22.	7.	4.	.24
+	HYDROGRAPH AT 400	196.	12.30	32.	9.	4.	.62
+	DIVERSION TO BS400	195.	12.27	10.	3.	1.	.62
+	HYDROGRAPH AT D400	190.	12.37	23.	6.	3.	.62
+	HYDROGRAPH AT RT400	195.	12.27	10.	3.	1.	.62
+	ROUTED TO SR400	2.	9.57	2.	2.	1.	.62
+	2 COMBINED AT C400	192.	12.37	25.	8.	4.	.62
+	3 COMBINED AT 400C	3033.	12.70	699.	317.	208.	9.53
+	HYDROGRAPH AT 385	537.	12.27	64.	18.	9.	.65
+	DIVERSION TO SF385	215.	12.27	26.	7.	3.	.65
+	HYDROGRAPH AT D385	322.	12.27	38.	11.	5.	.65
	ROUTED TO 385R	281.	12.60	38.	11.	5.	.65
	HYDROGRAPH AT 420	464.	12.23	67.	19.	9.	.85
+	DIVERSION TO BS420	319.	12.10	15.	4.	2.	.85
+	HYDROGRAPH AT D420	464.	12.23	56.	15.	7.	.85

+ 3 COMBINED AT	200C	3164.	12.33	403.	105.	51.	4.14
+ ROUTED TO	R200	3139.	12.33	403.	105.	51.	4.14
2 COMBINED AT	C180	7586.	12.33	1029.	325.	185.	10.68
+ ROUTED TO	SR180	135.	15.73	135.	134.	108.	10.68
+ ROUTED TO	R180	135.	15.73	135.	134.	108.	10.68
+ HYDROGRAPH AT	260	314.	12.13	33.	9.	4.	.27
+ 2 COMBINED AT	260C	423.	12.13	164.	143.	114.	.27
+ ROUTED TO	R260	406.	12.20	164.	143.	113.	.27
+ HYDROGRAPH AT	280	339.	12.10	32.	9.	4.	.30
+ 2 COMBINED AT	280C	713.	12.17	193.	150.	117.	.57
+ ROUTED TO	R280	689.	12.23	193.	150.	117.	.57
+ HYDROGRAPH AT	300	530.	12.27	77.	21.	10.	.99
+ 2 COMBINED AT	300C	1205.	12.23	267.	169.	126.	1.56
+ ROUTED TO	R300	1180.	12.30	267.	169.	126.	1.56
+ ROUTED TO	RR300	1160.	12.37	267.	169.	125.	1.56
+ HYDROGRAPH AT	350	783.	12.27	71.	19.	9.	.97
+ DIVERSION TO	SF350	470.	12.27	43.	11.	5.	.97
+ HYDROGRAPH AT	D350	313.	12.27	29.	7.	4.	.97
ROUTED TO	350R	284.	12.43	29.	7.	4.	.97
+ HYDROGRAPH AT	310	215.	12.40	33.	8.	4.	.56
+ 2 COMBINED AT	C310	496.	12.43	61.	16.	7.	.94
+ ROUTED TO	R310	442.	12.73	61.	16.	7.	.94
+ HYDROGRAPH AT	320	620.	12.23	90.	26.	12.	.97
+ DIVERSION TO	BS320	421.	12.07	22.	6.	3.	.97
+ HYDROGRAPH AT	D320	620.	12.23	74.	19.	9.	.97
+ HYDROGRAPH AT	RT320	421.	12.07	22.	6.	3.	.97
+ ROUTED TO	SR320	4.	6.23	4.	4.	3.	.97
+ 4 COMBINED AT	C320	1698.	12.33	400.	206.	144.	3.47
+ HYDROGRAPH AT	340	951.	12.23	138.	42.	20.	1.45
+ DIVERSION TO	BS340	951.	12.23	105.	28.	14.	1.45
+ HYDROGRAPH AT	D340	408.	12.70	46.	13.	6.	1.45
+ HYDROGRAPH AT	RT340	951.	12.23	105.	28.	14.	1.45
+ ROUTED TO	SR340	19.	9.90	19.	19.	14.	1.45
+ 3 COMBINED AT	C340	1860.	12.70	460.	237.	164.	4.92
HYDROGRAPH AT	RT350	470.	12.27	43.	11.	5.	.97
ROUTED TO	RR350	423.	12.43	43.	11.	5.	.97
+ HYDROGRAPH AT	355	300.	12.40	48.	13.	6.	.66
+ 2 COMBINED AT	C355	716.	12.43	90.	24.	11.	1.24

+	ROUTED TO R355	633.	12.73	90.	24.	11.	1.24
+	HYDROGRAPH AT 370	378.	12.37	57.	16.	8.	.67
	ROUTED TO R370	336.	12.73	57.	16.	8.	.67
+	HYDROGRAPH AT 360	318.	12.30	62.	19.	9.	.67
+	DIVERSION TO BS360	318.	12.30	54.	14.	7.	.67
+	HYDROGRAPH AT D360	66.	13.50	14.	4.	2.	.67
+	HYDROGRAPH AT RT360	318.	12.30	54.	14.	7.	.67
+	ROUTED TO SR360	10.	10.63	10.	10.	7.	.67
+	5 COMBINED AT 360C	2763.	12.70	619.	286.	190.	7.50
+	HYDROGRAPH AT 395	121.	12.30	18.	5.	2.	.20
+	ROUTED TO R395	104.	12.80	18.	5.	2.	.20
+	HYDROGRAPH AT 380	390.	12.33	69.	19.	9.	.97
+	DIVERSION TO BS380	390.	12.33	56.	14.	7.	.97
+	HYDROGRAPH AT D380	110.	13.27	16.	4.	2.	.97
+	HYDROGRAPH AT RT380	390.	12.33	56.	14.	7.	.97
+	ROUTED TO SR380	10.	11.67	10.	10.	7.	.97
+	4 COMBINED AT 380C	2841.	12.70	657.	304.	201.	8.67
+	HYDROGRAPH AT 390	343.	12.03	25.	7.	4.	.24
	DIVERSION TO BS390	123.	11.87	6.	2.	1.	.24
+	HYDROGRAPH AT D390	343.	12.03	21.	6.	3.	.24
+	HYDROGRAPH AT RT390	123.	11.87	6.	2.	1.	.24
+	ROUTED TO SR390	1.	4.07	1.	1.	1.	.24
+	2 COMBINED AT 390C	344.	12.03	22.	7.	4.	.24
+	ROUTED TO RR390	260.	12.37	22.	7.	4.	.24
+	HYDROGRAPH AT 400	196.	12.30	32.	9.	4.	.62
+	DIVERSION TO BS400	195.	12.27	10.	3.	1.	.62
+	HYDROGRAPH AT D400	190.	12.37	23.	6.	3.	.62
+	HYDROGRAPH AT RT400	195.	12.27	10.	3.	1.	.62
+	ROUTED TO SR400	2.	9.57	2.	2.	1.	.62
+	2 COMBINED AT C400	192.	12.37	25.	8.	4.	.62
+	3 COMBINED AT 400C	3033.	12.70	699.	317.	208.	9.53
+	HYDROGRAPH AT 385	537.	12.27	64.	18.	9.	.65
+	DIVERSION TO SF385	215.	12.27	26.	7.	3.	.65
+	HYDROGRAPH AT D385	322.	12.27	38.	11.	5.	.65
	ROUTED TO 385R	281.	12.60	38.	11.	5.	.65
	HYDROGRAPH AT 420	464.	12.23	67.	19.	9.	.85
+	DIVERSION TO BS420	319.	12.10	15.	4.	2.	.85
+	HYDROGRAPH AT D420	464.	12.23	56.	15.	7.	.85

+	HYDROGRAPH AT	RT420	319.	12.10	15.	4.	2.	.85
+	ROUTED TO	SR420	13.	11.40	12.	4.	2.	.85
	4 COMBINED AT	420C	3459.	12.70	793.	342.	221.	10.77
+	HYDROGRAPH AT	440	140.	12.03	9.	3.	1.	.08
+	ROUTED TO	R70	138.	12.07	9.	3.	1.	.08
+	HYDROGRAPH AT	441	12.	12.03	1.	0.	0.	.01
+	2 COMBINED AT	C108	149.	12.07	10.	3.	1.	.09
+	DIVERSION TO	SPLIT	75.	12.07	5.	1.	1.	.09
+	HYDROGRAPH AT	DIV4	75.	12.07	5.	1.	1.	.09
+	ROUTED TO	R108	69.	12.13	5.	1.	1.	.09
+	HYDROGRAPH AT	442	64.	12.10	6.	2.	1.	.10
+	2 COMBINED AT	C67	131.	12.13	11.	3.	1.	.19
+	DIVERSION TO	BASIN4	66.	12.13	3.	1.	0.	.19
+	HYDROGRAPH AT	DIV6	65.	12.13	8.	2.	1.	.19
+	HYDROGRAPH AT	RTDIV6	66.	12.13	3.	1.	0.	.19
+	ROUTED TO	RFDIV6	1.	11.97	1.	1.	0.	.19
+	2 COMBINED AT	CDIV6	66.	12.13	9.	3.	1.	.19
+	HYDROGRAPH AT	443	116.	12.07	11.	3.	1.	.08
	DIVERSION TO	WSH66	78.	11.93	10.	3.	1.	.08
+	HYDROGRAPH AT	DIV66	38.	12.07	1.	0.	0.	.08
+	ROUTED TO	R113	35.	12.10	1.	0.	0.	.08
+	2 COMBINED AT	C114	99.	12.10	10.	3.	2.	.27
+	HYDROGRAPH AT	444	61.	12.03	3.	1.	0.	.04
+	ROUTED TO	R58	57.	12.10	3.	1.	0.	.04
+	HYDROGRAPH AT	445	206.	12.07	12.	3.	2.	.19
+	2 COMBINED AT	C107	259.	12.07	16.	4.	2.	.23
+	ROUTED TO	R107	257.	12.07	16.	4.	2.	.23
+	HYDROGRAPH AT	RTB2	75.	12.07	5.	1.	1.	.09
+	ROUTED TO	RSPLIT	73.	12.10	5.	1.	1.	.09
+	HYDROGRAPH AT	446	47.	12.07	4.	1.	1.	.04
+	3 COMBINED AT	C109	374.	12.07	25.	7.	3.	.27
+	DIVERSION TO	WSH404	35.	11.83	7.	2.	1.	.27
+	HYDROGRAPH AT	DIV5	339.	12.07	18.	5.	2.	.27
+	ROUTED TO	R109	325.	12.10	18.	5.	2.	.27
	HYDROGRAPH AT	447	99.	12.07	9.	3.	1.	.09
+	HYDROGRAPH AT	RT404	35.	11.83	7.	2.	1.	.27
+	ROUTED TO	R404	35.	12.00	7.	2.	1.	.27
+	3 COMBINED AT	C110	451.	12.10	34.	10.	5.	.36

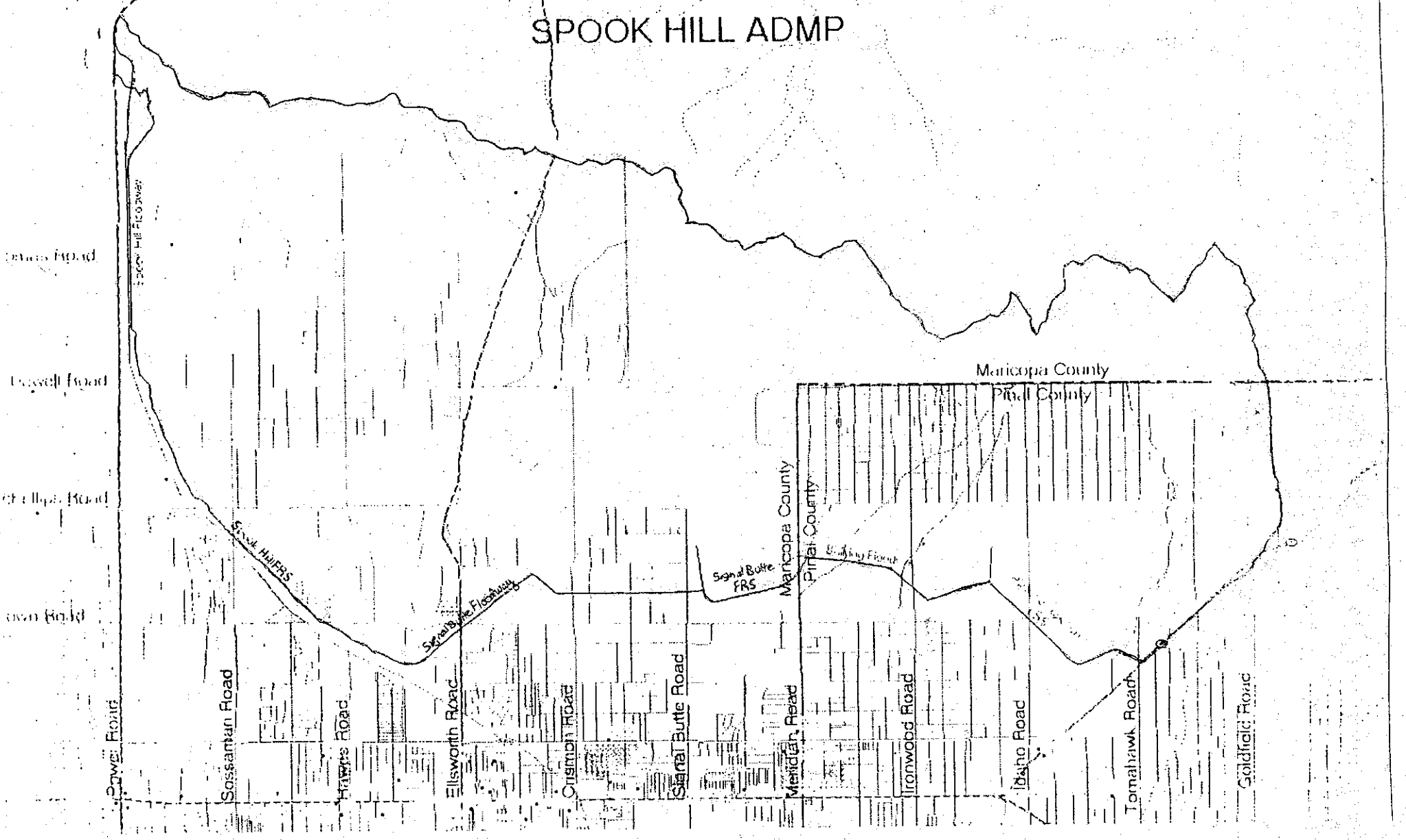
+	ROUTED TO	R110	449.	12.10	34.	10.	5.	.36
+	2 COMBINED AT	C115	543.	12.10	43.	13.	6.	.63
	ROUTED TO	R115	540.	12.10	43.	13.	6.	.63
+	HYDROGRAPH AT	448	66.	12.03	4.	1.	1.	.05
+	HYDROGRAPH AT	449	55.	12.03	3.	1.	0.	.05
+	2 COMBINED AT	C6364	120.	12.03	8.	2.	1.	.09
+	ROUTED TO	R6364	98.	12.20	8.	2.	1.	.09
+	HYDROGRAPH AT	450	38.	12.23	4.	1.	1.	.07
+	HYDROGRAPH AT	451	10.	12.23	1.	0.	0.	.03
+	HYDROGRAPH AT	RT66	78.	11.93	10.	3.	1.	.08
+	HYDROGRAPH AT	452	43.	12.07	3.	1.	0.	.04
+	2 COMBINED AT	C6465	121.	12.07	13.	4.	2.	.04
+	ROUTED TO	R6566	117.	12.13	13.	4.	2.	.04
+	4 COMBINED AT	C116	254.	12.20	26.	7.	3.	.23
+	ROUTED TO	BASIN5	108.	12.53	26.	7.	3.	.23
+	ROUTED TO	R116	107.	12.60	26.	7.	3.	.23
+	HYDROGRAPH AT	453	40.	12.13	5.	2.	1.	.06
+	2 COMBINED AT	C117	120.	12.57	31.	9.	4.	.29
	2 COMBINED AT	C118	590.	12.13	73.	21.	10.	.92
+	ROUTED TO	R118	589.	12.13	73.	21.	10.	.92
+	DIVERSION TO	BASIN6	96.	12.13	3.	1.	0.	.92
+	HYDROGRAPH AT	DIV7	493.	12.13	70.	20.	10.	.92
+	HYDROGRAPH AT	RTDIV7	96.	12.13	3.	1.	0.	.92
+	ROUTED TO	RFDIV7	1.	12.03	1.	1.	0.	.92
+	2 COMBINED AT	CDIV7	494.	12.13	71.	21.	10.	.92
+	HYDROGRAPH AT	454	99.	12.20	15.	4.	2.	.18
+	2 COMBINED AT	C119	586.	12.13	85.	25.	12.	1.10
+	ROUTED TO	R454	532.	12.40	85.	25.	12.	1.10
+	HYDROGRAPH AT	415	265.	12.20	40.	11.	6.	.45
+	HYDROGRAPH AT	RT385	215.	12.27	26.	7.	3.	.65
+	ROUTED TO	RR385	196.	12.47	26.	7.	3.	.65
+	3 COMBINED AT	415C	920.	12.40	149.	43.	21.	1.55
+	ROUTED TO	R415	891.	12.50	149.	43.	21.	1.55
+	HYDROGRAPH AT	455	910.	12.17	108.	33.	16.	1.11
	DIVERSION TO	BS455	910.	12.17	108.	33.	16.	1.11
+	HYDROGRAPH AT	D455	0.	.00	0.	0.	0.	1.11
+	HYDROGRAPH AT	RT455	910.	12.17	108.	33.	16.	1.11
+	ROUTED TO	SR455	25.	10.80	25.	25.	16.	1.11

+	2 COMBINED AT	C455	25.	10.80	25.	25.	16.	1.11
+	3 COMBINED AT	455C	4036.	12.70	947.	402.	255.	13.43
	ROUTED TO	SR440	761.	14.00	743.	402.	254.	13.43
+	ROUTED TO	RR455	761.	14.30	743.	402.	252.	13.43
+	HYDROGRAPH AT	456	348.	12.07	26.	7.	4.	.26
+	DIVERSION TO	BASIN1	114.	12.07	4.	1.	1.	.26
+	HYDROGRAPH AT	DIV1	234.	12.07	22.	6.	3.	.26
+	DIVERSION TO	WA30	53.	12.07	8.	3.	1.	.26
+	HYDROGRAPH AT	DIV2	181.	12.07	14.	3.	2.	.26
+	ROUTED TO	R456	169.	12.13	14.	3.	2.	.26
+	HYDROGRAPH AT	457	178.	12.10	14.	4.	2.	.19
+	2 COMBINED AT	C101	338.	12.10	27.	7.	3.	.45
+	DIVERSION TO	BASIN2	83.	12.10	3.	1.	0.	.45
+	HYDROGRAPH AT	DIV3	255.	12.10	24.	6.	3.	.45
+	HYDROGRAPH AT	RTDIV3	83.	12.10	3.	1.	0.	.45
+	ROUTED TO	RFDIV3	2.	11.97	2.	1.	0.	.45
+	2 COMBINED AT	CDIV3	257.	12.10	26.	7.	3.	.45
+	ROUTED TO	R101	254.	12.13	26.	7.	3.	.45
	HYDROGRAPH AT	458	264.	12.07	18.	5.	2.	.19
+	2 COMBINED AT	C103	498.	12.07	44.	12.	6.	.64
+	ROUTED TO	R103	494.	12.10	44.	12.	6.	.64
+	HYDROGRAPH AT	RT30	53.	12.07	8.	3.	1.	.26
+	ROUTED TO	R30	52.	12.10	8.	3.	1.	.26
+	HYDROGRAPH AT	RTB1	114.	12.07	4.	1.	1.	.26
+	ROUTED TO	B1	21.	12.23	4.	1.	1.	.26
+	ROUTED TO	RB1	21.	12.30	4.	1.	1.	.26
+	2 COMBINED AT	CDIV	66.	12.20	12.	4.	2.	.12
+	HYDROGRAPH AT	459	30.	12.03	2.	1.	0.	.03
+	2 COMBINED AT	C52	84.	12.13	15.	5.	2.	.15
+	ROUTED TO	R52	83.	12.17	15.	5.	2.	.15
+	HYDROGRAPH AT	460	149.	12.07	15.	5.	2.	.14
+	2 COMBINED AT	C102	227.	12.10	29.	9.	4.	.29
+	ROUTED TO	BASIN3	65.	12.57	29.	9.	4.	.29
+	ROUTED TO	R3	65.	12.70	29.	9.	4.	.29
	HYDROGRAPH AT	461	112.	12.10	13.	4.	2.	.12
+	2 COMBINED AT	C104	162.	12.10	41.	13.	6.	.41
+	2 COMBINED AT	C106	652.	12.10	84.	24.	12.	1.05
+	ROUTED TO	R106	615.	12.17	84.	24.	12.	1.05

	HYDROGRAPH AT							
+		462	399.	12.07	30.	8.	4.	.30
	2 COMBINED AT							
+		C56	919.	12.13	113.	32.	16.	1.35
	HYDROGRAPH AT							
		480	717.	12.10	73.	23.	11.	.73
	DIVERSION TO							
+		BS480	543.	12.00	28.	8.	4.	.73
	HYDROGRAPH AT							
+		D480	717.	12.10	53.	15.	7.	.73
	HYDROGRAPH AT							
+		RT480	543.	12.00	28.	8.	4.	.73
	ROUTED TO							
+		SR480	6.	4.17	6.	6.	4.	.73
	2 COMBINED AT							
+		C480	722.	12.10	59.	20.	11.	.73
	3 COMBINED AT							
+		480C	1822.	12.13	858.	463.	285.	2.09
	ROUTED TO							
+		RR480	1746.	12.20	857.	463.	285.	2.09
	HYDROGRAPH AT							
+		500	739.	12.30	89.	24.	12.	.93
	2 COMBINED AT							
+		500C	2353.	12.23	937.	484.	296.	2.84

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

SPOOK HILL ADMP



HEC-1 Existing Conditions 100-Year, 24-Hour Storm. Maintain Apache & Signal Butte FRS & Eliminate Spook Hill FRS. Offline Basin added in Sub-Basin 380. Spook Hill flood way @ 2900 cfs.

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1*************************************
 *                                   *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *
 *              JUN  1998            *
 *           VERSION 4.1             *
 *                                   *
 *  RUN DATE   09MAY00  TIME  08:00:08   *
 *                                   *
*************************************
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*************************************
*                                   *
*    U.S. ARMY CORPS OF ENGINEERS   *
*    HYDROLOGIC ENGINEERING CENTER  *
*          609 SECOND STREET        *
*       DAVIS, CALIFORNIA 95616     *
*           (916) 756-1104          *
*                                   *
*************************************
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X     X  XXXXXXX   XXXXX          X
X     X  X        X     X        XX
X     X  X        X              X
XXXXXXX  XXXX     X        XXXXX  X
X     X  X        X              X
X     X  X        X     X        X
X     X  XXXXXXX   XXXXX         XXX
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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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1                                          HEC-1 INPUT                                                    PAGE  1

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

  1           ID   EXISTING LAND USE CALCULATIONS WERE BASED ON 1 YR. FROM 11/5/99
  2           ID   FOR LAS SENDAS       AND LANDISCOR JAN.1999 AERIAL PHOTOGRAPHS
  3           ID
  4           ID   ALL DAMS WERE ANALYZED WITH NO STORAGE BELOW PRINCIPLE SPILLWAY ELEVATIONS
  5           ID
  6           ID   A CONSERVATIVE ESTIMATE WAS USED FOR THE LOCATION OF THE CENTROID FOR
  7           ID   PRECIPITATION VALUES
  8           ID
  9           ID   ALL CHANNEL ROUTING INFORMATION WAS OBTAINED FROM MCFCD SPOOK HILL   SIGNAL
 10           ID   BUTTE        AND BULLDOG FLOODWAY PLANS
 11           ID
 12           ID   ANALYSIS PREPARED BY WOOD/PATEL - MW;  04/19/00  ;FILE:  S24CE1.DAT
 13           ID
 14           ID   MODEL UPDATE BASED ON KEEPING THE APACHE JUNCTION FRS & SIGNAL BUTTE FRS
 15           ID   ELIMINATING THE SPOOK HILL FRS FOR THE - 100YR; 24HR STORM
 16           ID   OFFLINE BASIN ADDED TO DRAINAGE SUB-BASIN 380 TO REDUCE FLOW AT THOMAS
 17           ID   ROAD TO 2900 cfs
 18           ID
 19           ID
 20           ID   DDM MCUHP1 SPOOK HILL AMDP - EXISTING CONDITIONS MODEL - 100YR, 24HR STORM
              *DIAGRAM
 21           IT       2                    1500
 22           IO       3
 23           IN      15
 24           JD    3.81    0.01
 25           PC    .000    .002    .005    .008    .011    .014    .017    .020    .023    .026
 26           PC    .029    .032    .035    .038    .041    .044    .048    .052    .056    .060
 27           PC    .064    .068    .072    .076    .080    .085    .090    .095    .100    .105
 28           PC    .110    .115    .120    .126    .133    .140    .147    .155    .163    .172
 29           PC    .181    .191    .203    .218    .236    .257    .283    .387    .663    .707
 30           PC    .735    .758    .776    .791    .804    .815    .825    .834    .842    .849
 31           PC    .856    .863    .869    .875    .881    .887    .893    .898    .903    .908
 32           PC    .913    .918    .922    .926    .930    .934    .938    .942    .946    .950
 33           PC    .953    .956    .959    .962    .965    .968    .971    .974    .977    .980
 34           PC    .983    .986    .989    .992    .995    .998   1.000
 35           JD    3.58   10.00
 36           JD    3.43   30.00
 37           JD    3.28   60.00
 38           JD    3.22   90.00
 39           JD    3.18  120.00
 40           JD    3.14  150.00
 41           JD    3.05  300.00
 42           JD    2.97  500.00
              * DDM   ***** Updated *****

 43           KK      10
 44           KM   SUB-BASIN 10
 45           KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 46           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
 47           KM     L = 2.00  Kb = .044  Adj. Slope =  165.0
 48           BA    .702
 49           LG    .350    .320   7.600    .090  15.000
 50           UC    .421    .302
 51           UA       0       3       5       8      12      20      43      75      90      96
 52           UA     100
              * DDM   ***** Preserved *****
1                                          HEC-1 INPUT                                                    PAGE  2

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

 53           KK     R10
 54           KM   ROUTING OF FLOW FROM SUB-BASIN 10 TO SUB-BASIN 20
 55           RS      10     FLOW      -1
 56           RC    .045    .045    .045   13200    .017
 57           RX       0       1       2      14      34      46      47      48
 58           RY       4       4       4       0       0       4       4       4
              * DDM   ***** Updated *****

 59           KK      20
 60           KM   SUB-BASIN 20
 61           KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 62           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .993
 63           KM     L = 2.50  Kb = .041  Adj. Slope =   88.0
 64           BA   1.120
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 65          LG    .350    .390   5.800    .190   1.000
 66          UC    .658    .454
 67          UA      0       3       5       8      12      20      43      75      90      96
 68          UA     100
             * DDM   ***** Preserved *****

 69          KK     C20
 70          KM   HYDROGRAPH COMBINATION OF SUB-BASINS 10 AND 20
 71          HC       2
             * DDM   ***** Updated *****

 72          KK      40
 73          KM   SUB-BASIN 40
 74          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 75          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .987
 76          KM     L = 3.08  Kb = .036  Adj. Slope =  189.0
 77          BA   2.233
 78          LG    .340    .340   4.900    .280   5.000
 79          UC    .496    .264
 80          UA      0       3       5       8      12      20      43      75      90      96
 81          UA     100
             * DDM   ***** Updated *****

 82          KK      60
 83          KM   SUB-BASIN 60
 84          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 85          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .990
 86          KM     L = 4.19  Kb = .038  Adj. Slope =  209.6
 87          BA   1.746
 88          LG    .330    .350   5.800    .190   9.000
 89          UC    .596    .477
 90          UA      0       3       5       8      12      20      43      75      90      96
 91          UA     100
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE  3

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


 92          KK     60C
 93          KM   HYDROGRAPH COMBINATION FOR APACHE JUNCTION FRS
             *      1       2
 94          HC       3
             * DDM   ***** Preserved *****

 95          KK    SR60
 96          KM   APACHE JUNCTION FRS AS-BUILT PLANS 12/19/88
 97          KM   OUTLET PIPE=30"RCP; L=136.6'; INLET INV.=1783.5; OUTLET INV.=1783
 98          KM   EMERGENCY SPILLWAY ELEV.=1799.77'; PRINCIPLE SPILLWAY ELEV.=1793.5'
 99          KM   STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 100 ACRE-FEET
100          RS       1    STOR       0
101          SV       0       1     100     200     300     400
102          SQ       0      71      81      87    91.5      94
103          SE    83.5    93.5      96    97.7      99   99.77
             * DDM   ***** Preserved *****

104          KK     R60
105          KM        ROUTE FLOW THROUGH BULLDOG FLOODWAY FROM APACHE JUNCTION FRS
106          RS       2    FLOW      -1
107          RC    .016    .016    .016    2850    .012
108          RX       0       1       2     2.1     5.6     5.7       6       7
109          RY     3.5     3.5     3.5       0       0     3.5     3.5     3.5
             * DDM   ***** Preserved *****

110          KK    RR60
111          KM   ROUTE FLOW FROM BULLDOG FLOODWAY TO SUB-BASIN 80
112          RS       3    FLOW      -1
113          RC    .016    .016    .016    3500    .005
114          RX       0       1       2     2.1     7.1     7.2       8       9
115          RY     3.5     3.5     3.5       0       0     3.5     3.5     3.5
             * DDM   ***** Updated *****

116          KK      80
117          KM   SUB-BASIN 80
118          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
119          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
120          KM     L = 2.69  Kb = .039  Adj. Slope =  229.8
121          BA   1.475
122          LG    .330    .330   5.600    .210   4.000
123          UC    .433    .259
124          UA      0       3       5       8      12      20      43      75      90      96
125          UA     100
             * DDM   ***** Preserved *****

126          KK     80C
127          KM   HYDROGRAPH COMBINATION FOR FLOW FROM APACHE JUNCTION FRS & SUB-BASIN 80
128          HC       2   1.475
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE  4

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


129          KK     R80
130          KM   ROUTE FLOW FROM SUB-BASIN 80 TO SUB-BASIN 100
131          RS       1    FLOW      -1
132          RC    .025    .016    .025    1200    .003
133          RX       0       2       6     6.1    41.1    41.2    56.2    58.2
134          RY     5.5     4.5     4.5       0       0     4.5     4.5     5.5
             * DDM   ***** Updated *****

135          KK     100
136          KM   SUB-BASIN 100
137          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
138          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
139          KM     L = 1.94  Kb = .046  Adj. Slope =  108.0
140          BA    .484
141          LG    .320    .290   5.100    .260   3.000
142          UC    .533    .473
143          UA      0       5      16      30      65      77      84      90      94      97
144          UA     100
             * DDM   ***** Preserved *****
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145          KK    100C
146          KM   HYDROGRAPH COMBINATION FOR FLOW FROM SUB-BASIN 80 & 100
147          HC       2
             * DDM   ***** Preserved *****

148          KK    R100
149          KM   ROUTE FLOW FROM SUB-BASIN 100 TO SUB-BASIN 120
150          RS       1    FLOW      -1
151          RC    .016    .016    .016     940    .005
152          RX       0       1       2     2.1    52.1    52.2      53      54
153          RY     4.5     4.5     4.5       0       0     4.5     4.5     4.5
             * DDM   ***** Updated *****

154          KK     120
155          KM   SUB-BASIN 120
156          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
157          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .987
158          KM     L = 3.07  Kb = .037  Adj. Slope =  239.0
159          BA   2.202
160          LG    .330    .280   6.800    .130  11.000
161          UC    .429    .226
162          UA       0       3       5       8      12      20      43      75      90      96
163          UA     100
             * DDM   ***** Preserved *****

164          KK    120C
165          KM   HYDROGRAPH COMBINATION FOR FLOW FROM SUB-BASIN 100 & 120
166          HC       2
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE  5

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

167          KK    R120
168          KM   ROUTE FLOW FROM SUB-BASIN 120 TO SIGNAL BUTTE FRS
169          RS       1    FLOW      -1
170          RC    .025    .016    .025    2100    .005
171          RX       0       6      10    10.1    60.1    60.2    74.2    80.2
172          RY       8       5       5       0       0       5       5       8
             * DDM   ***** Updated *****

173          KK     140
174          KM   SUB-BASIN 140
175          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
176          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
177          KM     L = 1.61  Kb = .044  Adj. Slope =  149.0
178          BA    .598
179          LG    .310    .280   4.200    .440   5.000
180          UC    .421    .278
181          UA       0       5      16      30      65      77      84      90      94      97
182          UA     100
             * DDM   ***** Updated *****

183          KK     150
184          KM   SUB-BASIN 150
185          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
186          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
187          KM     L = 1.50  Kb = .047  Adj. Slope =  315.0
188          BA    .408
189          LG    .350    .360   5.100    .260   7.000
190          UC   1.579   1.417
191          UA       0       3       5       8      12      20      43      75      90      96
192          UA     100
             * DDM   ***** Preserved *****

193          KK    R150
194          KM   ROUTING OF FLOW FROM SUB-BASIN 150 THROUGH 160
195          RS      14    FLOW      -1
196          RC    .045    .045    .045   10895    .019
197          RX       0       1       2      14      34      46      47      48
198          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

199          KK     160
200          KM   SUB-BASIN 160
201          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
202          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
203          KM     L = 2.10  Kb = .047  Adj. Slope =  129.0
204          BA    .369
205          LG    .340    .330   4.150    .440   1.000
206          UC    .587    .655
207          UA       0       3       5       8      12      20      43      75      90      96
208          UA     100
             * DDM   ***** Updated *****
1                                    HEC-1 INPUT                                          PAGE  6

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

209          KK     180
210          KM   SUB-BASIN 180
211          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
212          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
213          KM     L = 2.42  Kb = .041  Adj. Slope =  140.0
214          BA   1.000
215          LG    .350    .350   4.150    .430    .000
216          UC    .571    .403
217          UA       0       3       5       8      12      20      43      75      90      96
218          UA     100
             * DDM   ***** Preserved *****

219          KK    180C
220          KM   HYDROGRAPH COMBINATION FOR SIGNAL BUTTE FRS
221          HC       5
             * DDM   ***** Updated *****

222          KK     240
223          KM   SUB-BASIN 240
224          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
225          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .992
226          KM     L = 3.50  Kb = .039  Adj. Slope =  298.6
227          BA   1.398
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228          LG    .350    .370   5.200    .240   2.000
229          UC    .471    .361
230          UA       0       3       5       8      12      20      43      75      90      96
231          UA     100
             * DDM   ***** Preserved *****

232          KK    R240
233          KM   ROUTE FLOW FROM SUB-BASIN 240 TO SUB-BASIN 220
234          KM   PASS MOUNTAIN DIVERSION
235          RS       2    FLOW      -1
236          RC    .035    .025    .035    1752    .005
237          RX       0      15      30      60      88     558     568     573
238          RY      10      10      10       0       0      10      10      10
             * DDM   ***** Updated *****

239          KK     210
240          KM   SUB-BASIN 210
241          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
242          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
243          KM     L = 1.84  Kb = .045  Adj. Slope =  315.0
244          BA    .583
245          LG    .350    .350   7.000    .120   5.000
246          UC    .321    .232
247          UA       0       3       5       8      12      20      43      75      90      96
248          UA     100
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE  7

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


249          KK    R210
250          KM   ROUTING OF FLOW FROM SUB-BASIN 210 TO SUB-BASIN 220
251          RS       3    FLOW      -1
252          RC    .045    .045    .045    5484    .024
253          RX       0       1       2      14      29      41      42      43
254          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

255          KK     220
256          KM   SUB-BASIN 220
257          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
258          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
259          KM     L = 1.92  Kb = .043  Adj. Slope =  315.0
260          BA    .725
261          LG    .350    .350   7.000    .120   4.000
262          UC    .317    .209
263          UA       0       3       5       8      12      20      43      75      90      96
264          UA     100
             * DDM   ***** Preserved *****

265          KK    220C
266          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 240 & 220
267          HC       3
             * DDM   ***** Preserved *****

268          KK    R220
269          KM   ROUTE FLOW FROM SUB-BASIN 220 TO SUB-BASIN 200
270          KM   PASS MOUNTAIN DIVERSION
271          RS       1    FLOW      -1
272          RC    .035    .025    .035     632    .005
273          RX       0       5      10      40      70      85      86      87
274          RY      10      10      10       0       0      10      10      10
             * DDM   ***** Updated *****

275          KK     190
276          KM   SUB-BASIN 190
277          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
278          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
279          KM     L = 1.91  Kb = .042  Adj. Slope =  315.0
280          BA    .918
281          LG    .350    .390   5.800    .190   8.000
282          UC    .321    .185
283          UA       0       3       5       8      12      20      43      75      90      96
284          UA     100
             * DDM   ***** Preserved *****

285          KK    R190
286          KM   ROUTING OF FLOW FROM SUB-BASIN 190 TO SUB-BASIN 200
287          RS       4    FLOW      -1
288          RC    .045    .045    .045    6948    .023
289          RX       0       1       2      17      37      52      53      54
290          RY       5       5       5       0       0       5       5       5
             * DDM   ***** Updated *****
1                                        HEC-1 INPUT                                          PAGE  8

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


291          KK     200
292          KM   SUB-BASIN 200
293          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
294          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
295          KM     L = 1.92  Kb = .045  Adj. Slope =  315.0
296          BA    .535
297          LG    .350    .390   5.700    .200  10.000
298          UC    .338    .267
299          UA       0       3       5       8      12      20      43      75      90      96
300          UA     100
             * DDM   ***** Preserved *****

301          KK    200C
302          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 220 & 200
303          HC       3
             * DDM   ***** Preserved *****

304          KK    R200
305          KM   ROUTE FLOW FROM SUB-BASIN 200 TO SIGNAL BUTTE FRS
306          RS       1    FLOW      -1
307          RC    .035    .025    .035    1300    .005
308          RX       0       1       2      17     117     132     133     134
309          RY       5       5       5       0       0       5       5       5
             * DDM   ***** Preserved *****
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 310          KK    C180
 311          KM    HYDROGRAPH COMBINATION FOR SIGNAL BUTTE FRS
              *       1        2
 312          HC       2
              * DDM    ***** Preserved *****

 313          KK    SR180
 314          KM    SIGNAL BUTTE FRS DATED 1/28/85
 315          KM    OUTLET PIPE=36"RCP; L= 147';  INLET INV.=1690; OUTLET INV.=1687
 316          KM    EMERGENCY SPILLWAY ELEV.=1712.4; PRINCIPLE SPILLWAY ELEV.=1701
 317          KM    STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 250 ACRE-FEET
 318          RS       1    STOR       0
 319          SV       0       1     250     500     750    1060
 320          SQ       0   106.5   125.5   137.5     146     160
 321          SE      90     101   104.5     107     109   112.4
              * DDM    ***** Preserved *****

 322          KK    R180
 323          KM    ROUTE FLOW FROM SIGNAL BUTTE FRS TO SUB-BASIN 260
 324          RS       2    FLOW      -1
 325          RC    .035    .025    .035    1500    .003
 326          RX       0       1       2    22.6    38.6    59.2      60      61
 327          RY     9.3     9.3     9.3       0       0     9.3     9.3     9.3
              * DDM    ***** Updated *****
1                                        HEC-1 INPUT                                                    PAGE  9

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


 328          KK     260
 329          KM    SUB-BASIN 260
 330          KM    24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 331          KM    THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
 332          KM     L =  .81  Kb = .049  Adj. Slope =   68.0
 333          BA    .267
 334          LG    .300    .170   6.800    .160  15.000
 335          UC    .363    .215
 336          UA       0       5      16      30      65      77      84      90      94      97
 337          UA     100
              * DDM    ***** Preserved *****

 338          KK    260C
 339          KM    HYDROGRAPH COMBINATION FOR OUTFLOW OF SIGNAL BUTTE FRS & SUB-BASIN 260
 340          HC       2    .267
              * DDM    ***** Preserved *****

 341          KK    R260
 342          KM    ROUTE FLOW FROM SUB-BASIN 260 TO SUB-BASIN 280
 343          RS       2    FLOW      -1
 344          RC    .035    .025    .035    2300    .003
 345          RX       0       1       2    23.4    43.4    64.8      65      66
 346          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
              * DDM    ***** Updated *****

 347          KK     280
 348          KM    SUB-BASIN 280
 349          KM    24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 350          KM    THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
 351          KM     L =  .77  Kb = .049  Adj. Slope =   84.0
 352          BA    .304
 353          LG    .300    .250   5.300    .290  15.000
 354          UC    .333    .175
 355          UA       0       5      16      30      65      77      84      90      94      97
 356          UA     100
              * DDM    ***** Preserved *****

 357          KK    280C
 358          KM    HYDROGRAPH COMBINATION FOR SUB-BASIN 260 & SUB-BASIN 280
 359          HC       2
              * DDM    ***** Preserved *****

 360          KK    R280
 361          KM    ROUTE FLOW FROM SUB-BASIN 280 TO SUB-BASIN 300
 362          RS       2    FLOW      -1
 363          RC    .035    .025    .035    2500    .003
 364          RX       0       1       2    23.4    43.4    64.8      65      66
 365          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
              * DDM    ***** Updated *****
1                                        HEC-1 INPUT                                                    PAGE 10

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


 366          KK     300
 367          KM    SUB-BASIN 300
 368          KM    24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 369          KM    THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
 370          KM     L = 2.28  Kb = .041  Adj. Slope =  127.0
 371          BA    .988
 372          LG    .340    .320   4.500    .370   7.000
 373          UC    .538    .362
 374          UA       0       5      16      30      65      77      84      90      94      97
 375          UA     100
              * DDM    ***** Preserved *****

 376          KK    300C
 377          KM    HYDROGRAPH COMBINATION OF SUB-BASIN 280 & 300
 378          HC       2
              * DDM    ***** Preserved *****

 379          KK    R300
 380          KM    ROUTE FLOW FROM SUB-BASIN 300 TO START OF FLOODWAY CONCRETE CHANNEL
 381          RS       2    FLOW      -1
 382          RC    .035    .025    .035    2200    .003
 383          RX       0       1       2    23.4    55.4    76.8      77      78
 384          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
              * DDM    ***** Preserved *****

 385          KK    RR300
 386          KM    CONTINUE TO ROUTE FLOW WITHIN CONCRETE CHANNEL TO SPOOK HILL FRS
 387          RS       2    FLOW      -1
 388          RC    .016    .016    .016    6050   .0146
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389          RX       0       1       2     2.1    16.1    16.2      17      18
390          RY     7.5     7.5     7.5       0       0     7.5     7.5     7.5
             *      1       2
             * DDM   ***** Updated *****

391          KK     350
392          KM   SUB-BASIN 350
393          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
394          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
395          KM     L = 2.22  Kb = .042  Adj. Slope =  315.0
396          BA    .970
397          LG    .350    .350   4.550    .340   4.000
398          UC    .367    .234
399          UA       0       3       5       8      12      20      43      75      90      96
400          UA     100
             * DDM   ***** Preserved *****

401          KK    D350
402          KM   DIVERT FLOW FROM SUB-BASIN 350. FOR MODELING PURPOSES THE SPLIT FLOW WILL
403          KM   BE ROUTED BETWEEN SUB-BASINS 355 & 310. THE MAIN FLOW WILL ROUTED TO 310
404          DT   SF350
405          DI       0   10000
406          DQ       0    6000
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE 11

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

407          KK    350R
408          KM   ROUTING OF MAIN FLOW FROM DIVERSION OF SUB-BASIN 350 TO SUB-BASIN 310
409          RS       5    FLOW      -1
410          RC    .045    .045    .045    5379    .024
411          RX       0       1       2      11      26      35      36      37
412          RY       3       3       3       0       0       3       3       3
             * DDM   ***** Updated *****

413          KK     310
414          KM   SUB-BASIN 310
415          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
416          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
417          KM     L = 2.70  Kb = .045  Adj. Slope =  283.5
418          BA    .555
419          LG    .350    .350   3.910    .480    .000
420          UC    .483    .511
421          UA       0       3       5       8      12      20      43      75      90      96
422          UA     100
             * DDM   ***** Preserved *****

423          KK    C310
424          KM   HYDROGRAPH COMBINATION OF SUB-BASINS 350 & 310
425          HC       2    .943
             * DDM   ***** Preserved *****

426          KK    R310
427          KM   ROUTING OF FLOW FROM SUB-BASIN 310 TO 320
428          RS       8    FLOW      -1
429          RC    .045    .045    .045   10050    .022
430          RX       0       1       2      14      29      41      42      43
431          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

432          KK     320
433          KM   SUB-BASIN 320
434          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
435          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
436          KM     L = 2.20  Kb = .042  Adj. Slope =  132.0
437          BA    .972
438          LG    .310    .300   4.550    .360  14.000
439          UC    .508    .333
440          UA       0       5      16      30      65      77      84      90      94      97
441          UA     100
             * DDM   ***** Preserved *****

442          KK    D320
443          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
444          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THREE SUBDIVISIONS
445          KM   SIERRA HEIGHTS       FALCON RIDGE    & MARBLE CREEK
446          KM        MAXIMUM VOLUME DIVERSION = 12.27acre-feet
             *      1
447          DT   BS320   12.27
448          DI       0   10000
449          DQ       0   10000
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE 12

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

450          KK   RT320
451          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
452          DR   BS320
             * DDM   ***** Preserved *****

453          KK   SR320
454          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
455          KM   12.27 ACRE-FEETx43560/36x3600=4.1cfs
             *      1
456          RS       1    STOR       0
457          SV       0     .01    12.3
458          SQ       0     4.2     4.2
             * DDM   ***** Preserved *****

459          KK    C320
460          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
461          HC       4

462          KK    R320
463          KM   ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
464          KM   TO JUST NORTH OF JUNCTION OF MCDOWELL & POWER RD.
465          RS       3    FLOW      -1
466          RC    .025    .025    .025    4500     .01
467          RX       0       1       2      20      70      88      89      90
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468          RY       6       6       6       0       0       6       6       6

469          KK     340
470          KM   SUB-BASIN 340
471          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
472          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
473          KM     L = 2.40  Kb = .042  Adj. Slope =  160.0
474          BA   1.449
475          LG    .280    .280   4.150    .520  21.000
476          UC    .512    .287
477          UA       0       5      16      30      65      77      84      90      94      97
478          UA     100
             * DDM   ***** Preserved *****

479          KK    D340
480          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
481          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THREE SUBDIVISIONS
482          KM   GRANDVIEW ESTATES    BOULDER MOUNTAIN & 33% OF MESA HIGHLANDS
483          KM        MAXIMUM VOLUME DIVERSION = 56.0 acre-feet
             *      1
484          DT   BS340      56
485          DI       0   10000
486          DQ       0   10000
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 13

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

487          KK   RT340
488          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
489          DR   BS340
             * DDM   ***** Preserved *****

490          KK   SR340
491          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
492          KM    56.0 ACRE-FEETx43560/36x3600=18.8cfs
             *      1
493          RS       1    STOR       0
494          SV       0     .01      56
495          SQ       0    18.9    18.9
             * DDM   ***** Preserved *****

496          KK    C340
497          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
498          HC       3

499          KK    R340
500          KM   ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
501          KM   TO JUST NORTH OF JUNCTION OF MCDOWELL & POWER RD.
502          RS       2    FLOW      -1
503          RC    .025    .025    .025    2300     .01
504          RX       0       1       2      20      70      88      89      90
505          RY       6       6       6       0       0       6       6       6
             * DDM   ***** Preserved *****

506          KK   RT350
507          KM   RETRIEVE SPLIT FLOW FROM DIVERSION OF SUB-BASIN 350
508          DR   SF350
             * DDM   ***** Preserved *****

509          KK   RR350
510          KM   ROUTING OF FLOW FROM SPLIT OF SUB-BASIN 350 TO 355
511          RS       5    FLOW      -1
512          RC    .045    .045    .045    6150    .023
513          RX       0       1       2      14      29      41      42      43
514          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

515          KK     355
516          KM   SUB-BASIN 355
517          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
518          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
519          KM     L = 3.00  Kb = .044  Adj. Slope =  284.0
520          BA    .659
521          LG    .340    .340   4.450    .370   4.000
522          UC    .488    .509
523          UA       0       3       5       8      12      20      43      75      90      96
524          UA     100
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 14

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

525          KK    C355
526          KM   HYDROGRAPH COMBINATION OF SUB-BASIN 355 AND THE SPLIT FLOW FROM SUB-BASIN 350
527          HC       2    1.24
             * DDM   ***** Preserved *****

528          KK    R355
529          KM   ROUTING OF FLOW FROM SUB-BASIN 355 TO SUB-BASIN 360
530          RS       9    FLOW      -1
531          RC    .045    .045    .045   11535    .023
532          RX       0       1       2      14      34      46      47      48
533          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

534          KK     360
535          KM   SUB-BASIN 360
536          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
537          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
538          KM     L = 2.10  Kb = .048  Adj. Slope =  124.0
539          BA    .670
540          LG    .260    .270   4.100    .560  20.000
541          UC    .587    .466
542          UA       0       5      16      30      65      77      84      90      94      97
543          UA     100
             * DDM   ***** Preserved *****

544          KK    D360
545          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
546          KM   DETENTION/RETENTION BASINS LOCATED WITHIN 33% OF MESA HIGHLANDS
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547          KM        MAXIMUM VOLUME DIVERSION = 28.6 acre-feet
             *      1
548          DT   BS360    28.6
549          DI       0   10000
550          DQ       0   10000
             * DDM   ***** Preserved *****

551          KK   RT360
552          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
553          DR   BS360
             * DDM   ***** Preserved *****

554          KK   SR360
555          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
556          KM    28.6 ACRE-FEETx43560/36x3600=9.6cfs
557          RS       1    STOR       0
558          SV       0     .01    28.6
559          SQ       0     9.6     9.6
             * DDM   ***** Preserved *****

560          KK    360C
561          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
562          HC       4
1                                    HEC-1 INPUT                                          PAGE 15

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

563          KK    R360
564          KM   ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
565          KM   TO JUST NORTH OF JUNCTION OF MCDOWELL & POWER RD.
566          RS       1    FLOW      -1
567          RC    .025    .025    .025    2600    .0016
568          RX       0       1       2      23       88     109     110     111
569          RY       7       7       7       0        0       7       7       7
             * DDM   ***** Preserved *****

570          KK     370
571          KM   SUB-BASIN 370
572          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
573          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
574          KM     L = 2.90  Kb = .044  Adj. Slope =  294.6
575          BA    .667
576          LG    .340    .320   4.650    .330   9.000
577          UC    .454    .455
578          UA       0       3       5       8      12      20      43      75      90      96
579          UA     100
             * DDM   ***** Preserved *****

580          KK    R370
581          KM   ROUTING OF FLOW FROM SUB-BASIN 370 TO 360
582          RS      10    FLOW      -1
583          RC    .045    .045    .045   11574    .021
584          RX       0       1       2      14      29      41      42      43
585          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

586          KK     395
587          KM   SUB-BASIN 395
588          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
589          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
590          KM     L = 1.60  Kb = .051  Adj. Slope =  215.8
591          BA    .198
592          LG    .330    .320   4.900    .300  10.000
593          UC    .383    .468
594          UA       0       3       5       8      12      20      43      75      90      96
595          UA     100
             * DDM   ***** Preserved *****

596          KK    R395
597          KM   ROUTING OF FLOW FROM SUB-BASIN 395 TO SUB-BASIN 380
598          RS      13    FLOW      -1
599          RC    .045    .045    .045   11300    .021
600          RX       0       1       2      11      26      35      36      37
601          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****
1                                    HEC-1 INPUT                                          PAGE 16

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

602          KK     380
603          KM   SUB-BASIN 380
604          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
605          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
606          KM     L = 2.20  Kb = .048  Adj. Slope =  114.0
607          BA    .972
608          LG    .300    .310   4.150    .500   7.000
609          UC    .658    .444
610          UA       0       5      16      30      65      77      84      90      94      97
611          UA     100
             * DDM   ***** Preserved *****

612          KK    D380
613          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
614          KM   DETENTION/RETENTION BASINS LOCATED WITHIN 33% OF MESA HIGHLANDS
615          KM        MAXIMUM VOLUME DIVERSION = 28.6 acre-feet
             *      1
616          DT   BS380    28.6
617          DI       0   10000
618          DQ       0   10000
             * DDM   ***** Preserved *****

619          KK   RT380
620          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
621          DR   BS380
             * DDM   ***** Preserved *****

622          KK   SR380
623          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
624          KM    28.6 ACRE-FEETx43560/36x3600=9.6cfs
625          RS       1    STOR       0
626          SV       0     .01    28.6
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627          SQ       0     9.6     9.6
             * DDM   ***** Preserved *****

628          KK    380C
629          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
630          HC       5
             * DDM   ***** Preserved *****

631          KK    380D
632          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
633          KM
634          KM
             *      1
635          DT    380S
636          DI       0     600   10000
637          DQ       0       0    9400
             * DDM   ***** Preserved *****
1                                          HEC-1 INPUT                                                    PAGE 17

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

638          KK   TR380
639          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
640          DR    380S
             * DDM   ***** Preserved *****

641          KK   380SR
642          KM   OFFLINE BASIN IN PARK AREA
643          KO       1       2
644          RS       1    STOR       0
645          SA      17      18      20
646          SE       0       8      10
647          SQ     200     800    2000
             * DDM   ***** Preserved *****

648          KK    C380
649          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
650          HC       2
             * DDM   ***** Preserved *****

651          KK    R380
652          KM   ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
653          KM   TO JUST NORTH OF JUNCTION OF MCDOWELL & POWER RD.
654          RS       4    FLOW      -1
655          RC    .025    .025    .025    4000   .0016
656          RX       0       1       2      26     .76     100     101     102
657          RY       8       8       8       0       0       8       8       8
             * DDM   ***** Updated *****
             * DDM   ***** Updated *****

658          KK     390
659          KM   SUB-BASIN 390
660          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
661          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
662          KM     L =  .70  Kb = .050  Adj. Slope =  299.4
663          BA    .244
664          LG    .300    .250   4.700    .380  18.000
665          UC    .204    .107
666          UA       0       5      16      30      65      77      84      90      94      97
667          UA     100
             * DDM   ***** Preserved *****

668          KK    D390
669          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
670          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THUNDER MOUNTAIN ESTATES
671          KM        MAXIMUM VOLUME DIVERSION  = 3.5 acre-feet
             *      1
672          DT   BS390     3.5
673          DI       0   10000
674          DQ       0   10000
             * DDM   ***** Preserved *****
1                                          HEC-1 INPUT                                                    PAGE 18

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

675          KK   RT390
676          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
677          DR   BS390
             * DDM   ***** Preserved *****

678          KK   SR390
679          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
680          KM     3.5 ACRE-FEETx43560/36x3600=1.2cfs
681          RS       1    STOR       0
682          SV       0     .01     3.5
683          SQ       0     1.2     1.2
             * DDM   ***** Preserved *****

684          KK    390C
685          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
686          HC       2
             * DDM   ***** Preserved *****

687          KK   RR390
688          KM   FROM SUB-BASIN 390 TO SUB-BASIN 400
689          RS       8    FLOW      -1
690          RC    .045    .045    .045    9029    .020
691          RX       0       1       2      14      19      31      32      33
692          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

693          KK     400
694          KM   SUB-BASIN 400
695          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
696          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
697          KM     L = 1.64  Kb = .046  Adj. Slope =  110.0
698          BA    .616
699          LG    .320    .320   3.130    .930   6.000
700          UC    .592    .405
701          UA       0       5      16      30      65      77      84      90      94      97
702          UA     100
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                * DDM   ***** Preserved *****

 703            KK    D400
 704            KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
 705            KM   DETENTION/RETENTION BASIN LOCATED WITHIN SAGUARO VISTA SUBDIVISION
 706            KM        MAXIMUM VOLUME DIVERSION = 5.6 ACRE-FEET
                *      1
 707            DT   BS400     5.6
 708            DI       0   10000
 709            DQ       0   10000
                * DDM   ***** Preserved *****

 710            KK   RT400
 711            KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
 712            DR   BS400
                * DDM   ***** Preserved *****
1                                   HEC-1 INPUT                                                    PAGE 19

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


 713            KK   SR400
 714            KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
 715            KM     5.6 ACRE-FEETx43560/36x3600 = 2 cfs
 716            RS       1    STOR       0
 717            SV       0     .01     5.6
 718            SQ       0       2       2
                * DDM   ***** Preserved *****

 719            KK    C400
 720            KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
 721            HC       2
                * DDM   ***** Preserved *****

 722            KK    400C
 723            KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
 724            HC       3

 725            KK    R400
 726            KM   ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
 727            KM   TO JUST NORTH OF JUNCTION OF MCDOWELL & POWER RD.
 728            RS       4    FLOW      -1
 729            RC    .025    .025    .025    3800   .0016
 730            RX       0       1       2      26      76     100     101     102
 731            RY       8       8       8       0       0       8       8       8
                * DDM   ***** Updated *****

 732            KK     385
 733            KM   SUB-BASIN 385
 734            KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 735            KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
 736            KM     L = 2.30  Kb = .044  Adj. Slope =  303.0
 737            BA    .647
 738            LG    .350    .370   5.600    .210  13.000
 739            UC    .375    .311
 740            UA       0       3       5       8      12      20      43      75      90      96
 741            UA     100
                * DDM   ***** Preserved *****

 742            KK    D385
 743            KM   DIVERT FLOW INTO SUB-BASINS 415 & 420
 744            DT   SF385
 745            DI       0   10000
 746            DQ       0    4000
                * DDM   ***** Preserved *****

 747            KK    385R
 748            KM   ROUTING OF FLOW DIVERSION FROM SUB-BASIN 385 INTO SUB-BASIN 420
 749            RS       9    FLOW      -1
 750            RC    .045    .045    .045   10233    .022
 751            RX       0       1       2      14      19      31      32      33
 752            RY       4       4       4       0       0       4       4       4
                * DDM   ***** Updated *****
1                                   HEC-1 INPUT                                                    PAGE 20

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


 753            KK     420
 754            KM   SUB-BASIN 420
 755            KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 756            KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .995
 757            KM     L = 1.91  Kb = .042  Adj. Slope =  120.0
 758            BA    .849
 759            LG    .310    .270   3.880    .580  12.000
 760            UC    .512    .325
 761            UA       0       5      16      30      65      77      84      90      94      97
 762            UA     100
                * DDM   ***** Preserved *****

 763            KK    D420
 764            KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
 765            KM   DETENTION/RETENTION BASINS LOCATED WITHIN GRAY FOX SUBDIVISION
 766            KM        MAXIMUM VOLUME DIVERSION = 8.65 acre-feet
                *      1
 767            DT   BS420    8.65
 768            DI       0   10000
 769            DQ       0   10000
                * DDM   ***** Preserved *****

 770            KK   RT420
 771            KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
 772            DR   BS420
                * DDM   ***** Preserved *****

 773            KK   SR420
 774            KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
 775            KM   38.55 ACRE-FEETx43560/36x3600=13cfs
 776            RS       1    STOR       0
 777            SV       0     .01   38.55
 778            SQ       0      13      13
                * DDM   ***** Preserved *****
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779          KK    420C
780          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
781          HC       4   10.77

782          KK    R420
783          KM   ROUTE FLOW THROUGH SPOOK HILL FRS FROM JUNCTION OF BROWN & ELLSWORTH ROAD
784          KM   TO JUST NORTH OF JUNCTION OF MCDOWELL & POWER RD.
785          RS       3    FLOW      -1
786          RC    .025    .025    .025    2900   .0016
787          RX       0       1       2      26      76     100     101     102
788          RY       8       8       8       0       0       8       8       8
             * DDM   ***** Preserved *****

789          KK     440
790          KM   SUB-BASIN 440
791          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
792          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
793          KM     L =  .40  Kb = .039  Adj. Slope =  315.0
794          BA    .080
1                                        HEC-1 INPUT                                                    PAGE 21

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

795          LG    .190    .380   6.400    .140  13.000
796          UC    .129    .077
797          UA       0       3       5       8      12      20      43      75      90      96
798          UA     100
             * DDM   ***** Preserved *****

799          KK     R70
800          KM   ROUTE FLOW FROM SUB-BASIN 440 TO C108
801          RS       1    FLOW      -1
802          RC     .05    .035     .05    2250     .08
803          RX    1000    1025    1050    1070    1075    1095    1120    1145
804          RY      30    22.9    15.7      10      10    15.7    22.9      30
             * DDM   ***** Updated *****

805          KK     441
806          KM   SUB-BASIN 441
807          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
808          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
809          KM     L =  .28  Kb = .069  Adj. Slope =  315.0
810          BA    .010
811          LG    .300    .250   5.600    .220   5.000
812          UC    .150    .225
813          UA       0       5      16      30      65      77      84      90      94      97
814          UA     100
             * DDM   ***** Preserved *****

815          KK    C108
816          KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 440 & 441
817          HC       2
             * DDM   ***** Preserved *****

818          KK    DIV4
819          KM        SPLIT FLOW WITH TWO 42 INCH PIPES TO WEST AND SOUTH
             *      1
820          DT   SPLIT
821          DI       0      14      40      82     120     154     180
822          DQ       0       7      20      41      60      77      90
             * DDM   ***** Preserved *****

823          KK    R108
824          KM        ROUTE FLOW FROM SUB-BASIN C108 TO C67
825          RS       2    FLOW      -1
826          RC     .05    .035     .05    3200      .1
827          RX    1000    1025    1050    1070    1075    1095    1120    1145
828          RY      30    22.9    15.7      10      10    15.7    22.9      30
             * DDM   ***** Updated *****

829          KK     442
830          KM   SUB-BASIN 442
831          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
832          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
833          KM     L =  .83  Kb = .055  Adj. Slope =  274.2
834          BA    .100
835          LG    .300    .270   3.290    .770   5.000
836          UC    .258    .264
1                                        HEC-1 INPUT                                                    PAGE 22

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

837          UA       0       5      16      30      65      77      84      90      94      97
838          UA     100
             * DDM   ***** Preserved *****

839          KK     C67
840          KM   COMBINE FLOW FROM SUB-BASIN 442 & DIV4
841          HC       2
             * DDM   ***** Preserved *****

842          KK    DIV6
843          KM        OFFLINE BASIN WITH 25 FOOT WEIR SET AT 2.5 FEET ABOVE BOTTOM OF CHANNEL
844          KM        FLOW CONTINUES BEYOND BASIN THROUGH 2-30" PIPES
             *      1
845          DT  BASIN4
846          DI       0      10      32      44    79.9   132.5     198   272.9   356.8
847          DQ       0       0       0       0    23.9    67.5     124   190.9   266.8
             * DDM   ***** Preserved *****

848          KK  RTDIV6
849          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
850          DR  BASIN4
             * DDM   ***** Preserved *****

851          KK  RFDIV6
852          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
853          KM     3.3 ACRE-FEETx43560/36x3600=1.1cfs
             *      1
854          RS       1    STOR       0
855          SV       0     .01     3.3
856          SQ       0     1.1     1.1
             * DDM   ***** Preserved *****
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857          KK   CDIV6
858          KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
859          HC       2
             * DDM   ***** Updated *****

860          KK     443
861          KM   SUB-BASIN 443
862          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
863          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
864          KM     L =  .71  Kb = .050  Adj. Slope =  315.0
865          BA    .080
866          LG    .250    .190   8.000    .080  10.000
867          UC    .196    .194
868          UA       0       5      16      30      65      77      84      90      94      97
869          UA     100
             * DDM   ***** Preserved *****

870          KK   DIV66
871          KM        DIVERT FLOW INTO 3 NATURAL WASHES WITH ONE 24" PIPE IN EACH WASH.
872          KM        EACH PIPE CAPACITY BASED ON 4 FEET OF HEAD
873          DT   WSH66
874          DI       0      78     100     200
875          DQ       0      78      78      78
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 23

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

876          KK    R113
877          KM        ROUTE FLOW FROM C113 TO C114
878          RS       1    FLOW      -1
879          RC    .019    .019    .019    1300    .029
880          RX    1000    1004    1008    1012    1018    1022    1026    1030
881          RY      17   15.33   12.67      10      10   12.67   15.33      17
             * DDM   ***** Preserved *****

882          KK    C114
883          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 67 AND C113
884          HC       2
             * DDM   ***** Updated *****

885          KK     444
886          KM   SUB-BASIN 444
887          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
888          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
889          KM     L =  .33  Kb = .034  Adj. Slope =  315.0
890          BA    .040
891          LG    .130    .350   4.450    .320   1.000
892          UC    .112    .084
893          UA       0       3       5       8      12      20      43      75      90      96
894          UA     100
             * DDM   ***** Preserved *****

895          KK     R58
896          KM   ROUTE FLOW FROM SUB-BASIN 444 TO C107
897          RS       2    FLOW      -1
898          RC     .05    .035     .05    2370   .0516
899          RX    1000    1010    1020    1050    1055    1085    1095    1105
900          RY      19      18      17      10      10      17      18      19
             * DDM   ***** Updated *****

901          KK     445
902          KM   SUB-BASIN 445
903          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
904          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
905          KM     L =  .82  Kb = .036  Adj. Slope =  315.0
906          BA    .190
907          LG    .170    .320   3.470    .590   3.000
908          UC    .192    .130
909          UA       0       5      16      30      65      77      84      90      94      97
910          UA     100
             * DDM   ***** Preserved *****

911          KK    C107
912          KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 444 & 445
913          HC       2
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 24

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

914          KK    R107
915          KM        ROUTE FLOW FROM C107 TO C109
916          RS       1    FLOW      -1
917          RC     .05    .035     .05     700   .0516
918          RX    1000    1010    1020    1050    1055    1085    1095    1105
919          RY      19      18      17      10      10      17      18      19
             * DDM   ***** Preserved *****

920          KK    RTB2
921          KM        RETRIEVE DIVERTED FLOW FROM BASIN 1
             *      1
922          DR   SPLIT
             * DDM   ***** Preserved *****

923          KK  RSPLIT
924          KM        ROUTE FLOW FROM SPLIT TO C109
925          RS       1    FLOW      -1
926          RC     .05    .035     .05     800     .05
927          RX    1000    1025    1050    1070    1075    1095    1120    1145
928          RY      30    22.9    15.7      10      10    15.7    22.9      30
             * DDM   ***** Updated *****

929          KK     446
930          KM   SUB-BASIN 446
931          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
932          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
933          KM     L =  .46  Kb = .061  Adj. Slope =  303.9
934          BA    .040
935          LG    .270    .250   4.500    .400  19.000
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936          UC    .183    .189
937          UA      0       5      16      30      65      77      84      90      94      97
938          UA    100
             * DDM   ***** Preserved *****

939          KK    C109
940          KM        COMBINE HYDROGRAPHS FROM COMBINES C107 AND C108
941          HC       3
             * DDM   ***** Preserved *****

942          KK    DIV5
943          KM        DIVERT FLOW INTO WASHES TOWARDS WEST
944          KM        DIVERSION THROUGH 36" PIPE WITH 3 FEET OF HEAD
             *      1
945          DT  WSH404
946          DI       0    40.7    71.2   121.6     190     276   379.4   500.6
947          DQ       0      35      35      35      35      35      35      35
             * DDM   ***** Preserved *****

948          KK    R109
949          KM        ROUTE FLOW FROM C109 TO C110
950          RS       1    FLOW      -1
951          RC    .019    .019    .019    3080     .05
952          RX    1000    1005    1010    1015    1025    1030    1035    1040
953          RY   13.75    12.5   11.25      10      10   11.25    12.5   13.75
             * DDM   ***** Updated *****
1                                        HEC-1 INPUT                                                PAGE 25

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

954          KK     447
955          KM   SUB-BASIN 447
956          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
957          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
958          KM     L =  .49  Kb = .056  Adj. Slope =  221.0
959          BA    .090
960          LG    .250    .270   3.350    .870  30.000
961          UC    .208    .145
962          UA      0       5      16      30      65      77      84      90      94      97
963          UA    100
             * DDM   ***** Preserved *****

964          KK   RT404
965          KM        RETRIEVE DIVERTED FLOW FOR WASH 109
966          DR  WSH404
             * DDM   ***** Preserved *****

967          KK    R404
968          KM        ROUTE FLOW FROM C110 TO C110
969          RS       5    FLOW      -1
970          RC    .019    .019    .019    3540     .03
971          RX    1000    1012    1016    1020    1025    1029    1033    1045
972          RY      15      12      11      10      10      11      12      15
             * DDM   ***** Preserved *****

973          KK    C110
974          KM   COMBINE HYDROGRAPHS FROM SUB-BASIN 447 AND R404
975          HC       3
             * DDM   ***** Preserved *****

976          KK    R110
977          KM        ROUTE FLOW FROM C110 TO C115
978          RS       1    FLOW      -1
979          RC    .019    .019    .019     580   .0291
980          RX    1000    1012    1016    1020    1035    1039    1043    1055
981          RY      15      12      11      10      10      11      12      15
             * DDM   ***** Preserved *****

982          KK    C115
983          KM        COMBINE HYDROGRAPHS FROM C114 AND C110
984          HC       2
             * DDM   ***** Preserved *****

985          KK    R115
986          KM        ROUTE FLOW FROM C115 TO C119
987          RS       1    FLOW      -1
988          RC    .019    .019    .019    2125    .029
989          RC    .019    .019    .019     580   .0291
990          RX    1000    1012    1016    1020    1035    1039    1043    1055
991          RY      15      12      11      10      10      11      12      15
             * DDM   ***** Updated *****
1                                        HEC-1 INPUT                                                PAGE 26

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

992          KK     448
993          KM   SUB-BASIN 448
994          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
995          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
996          KM     L =  .36  Kb = .042  Adj. Slope =  315.0
997          BA    .045
998          LG    .170    .310   4.200    .390  11.000
999          UC    .133    .102
1000         UA      0       5      16      30      65      77      84      90      94      97
1001         UA    100
             * DDM   ***** Updated *****

1002         KK     449
1003         KM   SUB-BASIN 449
1004         KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1005         KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
1006         KM     L =  .40  Kb = .054  Adj. Slope =  315.0
1007         BA    .050
1008         LG    .260    .280   3.500    .640   6.000
1009         UC    .167    .134
1010         UA      0       5      16      30      65      77      84      90      94      97
1011         UA    100
             * DDM   ***** Preserved *****

1012         KK   C6364
1013         KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 448 & 449
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1014          HC       2
              * DDM   ***** Preserved *****

1015          KK   R6364
1016          KM   ROUTE FLOW FROM C116 AND SUB-BASINS 448 AND 449
1017          RS       4    FLOW      -1
1018          RC     .05    .035     .05    4375   .0333
1019          RX    1000    1027    1053    1080    1090    1117    1143    1170
1020          RY      15   13.33   11.67      10      10   11.67   13.33      15
              * DDM   ***** Updated *****

1021          KK     450
1022          KM   SUB-BASIN 450
1023          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1024          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
1025          KM     L =  .85  Kb = .057  Adj. Slope =  210.5
1026          BA    .070
1027          LG    .340    .350   3.630    .570   4.000
1028          UC    .296    .383
1029          UA       0       3       5       8      12      20      43      75      90      96
1030          UA     100
              * DDM   ***** Updated *****
1                                        HEC-1 INPUT                                          PAGE 27

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

1031          KK     451
1032          KM   SUB-BASIN 451
1033          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1034          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
1035          KM     L =  .57  Kb = .063  Adj. Slope =  175.0
1036          BA    .025
1037          LG    .340    .340   3.290    .750   3.000
1038          UC    .271    .453
1039          UA       0       3       5       8      12      20      43      75      90      96
1040          UA     100
              * DDM   ***** Preserved *****

1041          KK    RT66
1042          KM        RETRIEVE DIVERTED FLOW FROM SUB-BASIN 66
1043          DR   WSH66
              * DDM   ***** Updated *****

1044          KK     452
1045          KM   SUB-BASIN 452
1046          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1047          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
1048          KM     L =  .43  Kb = .055  Adj. Slope =  315.0
1049          BA    .040
1050          LG    .260    .280   3.700    .550   9.000
1051          UC    .171    .166
1052          UA       0       5      16      30      65      77      84      90      94      97
1053          UA     100
              * DDM   ***** Preserved *****

1054          KK   C6465
1055          KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 443 AND 452
1056          HC       2
              * DDM   ***** Preserved *****

1057          KK   R6566
1058          KM        ROUTE FLOW FROM DIVERSIONS 65 AND 66 TO C116
1059          RS       2    FLOW      -1
1060          RC     .05    .035     .05    2435   .0282
1061          RX    1000    1045    1090    1150    1160    1220    1265    1310
1062          RY      25      23      20      10      10      20      23      25
              * DDM   ***** Preserved *****

1063          KK    C116
1064          KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 450 & 451 AND R6364 & R6465
1065          HC       4
              * DDM   ***** Preserved *****

1066          KK  BASIN5
1067          KM        RESERVOIR WITHIN PARCEL 31      2-48 INCH PIPES AT OUTFALL
1068          KM        BASIN 5 FEET DEEP
1069          RS       1    ELEV       0
1070          SV       0     4.5     9.9
1071          SQ       0      69     190
1072          SE       0     2.5       5
              * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 28

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

1073          KK    R116
1074          KM   ROUTE FLOW FROM C116 TO C117
1075          RS       2    FLOW      -1
1076          RC     .05    .035     .05    1300   .0333
1077          RX    1000    1100    1200    1300    1320    1420    1520    1620
1078          RY      13      12      11      10      10      11      12      13
              * DDM   ***** Updated *****

1079          KK     453
1080          KM   SUB-BASIN 453
1081          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1082          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
1083          KM     L =  .58  Kb = .058  Adj. Slope =  138.0
1084          BA    .060
1085          LG    .290    .300   3.290    .820  18.000
1086          UC    .275    .284
1087          UA       0       5      16      30      65      77      84      90      94      97
1088          UA     100
              * DDM   ***** Preserved *****

1089          KK    C117
1090          KM   COMBINE HYDROGRAPHS FROM SUB-BASIN 453 AND R116
1091          HC       2
              * DDM   ***** Preserved *****

1092          KK    C118
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1093        KM   COMBINE HYDROGRAPHS FROM R115 AND C117
1094        HC       2
            * DDM   ***** Preserved *****

1095        KK    R118
1096        KM        ROUTE FLOW FROM C118 TO  DIV7
1097        RS       1    FLOW      -1
1098        RC    .019    .019    .019    1500    .024
1099        RX    1000    1012    1016    1020    1035    1039    1043    1055
1100        RY      15      12      11      10      10      11      12      15
            * DDM   ***** Preserved *****

1101        KK    DIV7
1102        KM        OFFLINE BASIN AT NORTH MOUNTAIN RIDGE   FLOWS ENTER BASIN OVER
1103        KM        30' WEIR SET AT 5.3' ABOVE THE CHANNEL BOTTOM
            *      1
1104        DT  BASIN6
1105        DI       0     363     487     563     645     844
1106        DQ       0       3      47      83     125     244
            * DDM   ***** Preserved *****

1107        KK  RTDIV7
1108        KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
1109        DR  BASIN6
            * DDM   ***** Preserved *****
1                                   HEC-1 INPUT                                          PAGE 29

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


1110        KK  RFDIV7
1111        KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
1112        KM     3.6 ACRE-FEETx43560/36x3600=1.2cfs
1113        RS       1    STOR       0
1114        SV       0     .01     3.6
1115        SQ       0     1.2     1.2
            * DDM   ***** Preserved *****

1116        KK   CDIV7
1117        KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
1118        HC       2
            * DDM   ***** Updated *****

1119        KK     454
1120        KM   SUB-BASIN 454
1121        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1122        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1123        KM     L = 1.23  Kb = .051  Adj. Slope =  163.0
1124        BA    .180
1125        LG    .300    .310   3.780    .560  14.000
1126        UC    .379    .395
1127        UA       0       5      16      30      65      77      84      90      94      97
1128        UA     100
            * DDM   ***** Preserved *****

1129        KK    C119
1130        KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 454 AND C119
            *      1       2
1131        HC       2
            * DDM   ***** Preserved *****

1132        KK    R454
1133        KM   ROUTE FLOW FROM C119 TO 415C
1134        RS       8    FLOW      -1
1135        RC    .045    .035    .045    6000    .005
1136        RX    1000    1010    1020    1036    1041    1057    1067    1077
1137        RY      15    14.5      14      10      10      14    14.5      15
            * DDM   ***** Updated *****

1138        KK     415
1139        KM   SUB-BASIN 415
1140        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1141        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
1142        KM     L = 2.10  Kb = .046  Adj. Slope =  266.0
1143        BA    .448
1144        LG    .310    .270   4.250    .480  15.000
1145        UC    .404    .387
1146        UA       0       5      16      30      65      77      84      90      94      97
1147        UA     100
            * DDM   ***** Preserved *****
1                                   HEC-1 INPUT                                          PAGE 30

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


1148        KK   RT385
1149        KM   RETRIEVE FLOW FROM DIVERSION OF SUB-BASIN 385 INTO SUB-BASIN 415
1150        DR   SF385
            * DDM   ***** Preserved *****

1151        KK   RR385
1152        KM   ROUTING OF SPLIT FLOW FROM SUB-BASIN 385 TO SUB-BASIN 415
1153        RS       5    FLOW      -1
1154        RC    .045    .045    .045    5878    .024
1155        RX       0       1       2      14      19      31      32      33
1156        RY       4       4       4       0       0       4       4       4
            * DDM   ***** Preserved *****

1157        KK    415C
1158        KM   HYDROGRAPH COMBINATION OF SUB-BASINS 415, R454 & SPLIT FLOW FROM 385
1159        HC       3
            * DDM   ***** Preserved *****

1160        KK    R415
1161        KM   ROUTING OF FLOW FROM 415C TO 455C
1162        RS       3    FLOW      -1
1163        RC    .045    .045    .045    3900    .021
1164        RX       0       1       2      14      44      56      57      58
1165        RY       4       4       4       0       0       4       4       4
            * DDM   ***** Updated *****

1166        KK     455
1167        KM   SUB-BASIN 455
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1168        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1169        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .993
1170        KM     L = 1.70  Kb = .041  Adj. Slope =  146.0
1171        BA   1.111
1172        LG    .270    .280   3.700    .640  24.000
1173        UC    .421    .204
1174        UA      0       5      16      30      65      77      84      90      94      97
1175        UA    100
            * DDM   ***** Preserved *****

1176        KK    D455
1177        KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
1178        KM   DETENTION/RETENTION BASINS LOCATED WITHIN LAS SENDAS ADDENDUM III
1179        KM   FOR BASIN #: 30      34      43      47&58
1180        KM        MAXIMUM VOLUME DIVERSION = 74.1 acre-feet
            *      1
1181        DT   BS455    74.1
1182        DI       0   10000
1183        DQ       0   10000
            * DDM   ***** Preserved *****
1                                   HEC-1 INPUT                                          PAGE 31

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


1184        KK   RT455
1185        KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
1186        DR   BS455
            * DDM   ***** Preserved *****

1187        KK   SR455
1188        KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
1189        KM    74.1 ACRE-FEETx43560/36x3600=25cfs
1190        RS       1    STOR      0
1191        SV       0     .01    74.1
1192        SQ       0      25      25
            * DDM   ***** Preserved *****

1193        KK    C455
1194        KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 455 AND DIVERTED BASIN STORAGE OF 455
1195        HC       2
            * DDM   ***** Preserved *****

1196        KK    455C
1197        KM   HYDROGRAPH COMBINATION OF 420C, R415 AND C455
            *      1       2
1198        HC       3
            *  SPOOK HILL FRS REMOVED THIS ALTERNATIVE
            *  SR440
            *  SPOOK HILL FRS PLANS DATED 6/15/77
            *  OUTLET PIPE=7'x7.5'RCBC; L=70 INLET INV.=1566; OUTLET INV.=1566
            *  EMERGENCY SPILLWAY ELEV.=1582; PRINCIPLE SPILLWAY ELEV.=1577.5
            *  STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 200 ACRE-FEET
            *      1    STOR       0
            *      0      10     100     300     500     680
            *      0     640     720     780     825     860
            *     66    77.5      79    80.2    81.2      82
            * DDM   ***** Preserved *****

1199        KK   RR455
1200        KM   ROUTE FLOW FROM SPOOK HILL FRS TO SUB-BASIN 462
1201        RS       7    FLOW      -1
1202        RC    .035    .025    .035    9200    .002
1203        RX       0       1       2      28      58      84      85      86
1204        RY    13.5    13.5    13.5       0       0    13.5    13.5    13.5
            * DDM   ***** Updated *****

1205        KK     456
1206        KM   SUB-BASIN 456
1207        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1208        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
1209        KM     L =  .94  Kb = .045  Adj. Slope =  315.0
1210        BA    .260
1211        LG    .300    .380   5.600    .200  12.000
1212        UC    .217    .139
1213        UA      0       5      16      30      65      77      84      90      94      97
1214        UA    100
            * DDM   ***** Preserved *****
1                                   HEC-1 INPUT                                          PAGE 32

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


1215        KK    DIV1
1216        KM        DIVERT FLOW INTO OFFLINE DETENTION BASIN
1217        KM        WEIR FOR BASIN SET AT 4 FEET ABOVE CHANNEL BOTTOM
            *      1
1218        DT  BASIN1
1219        DI       0    11.1   127.9   234.4   577.7   789.9  1025.5  1280.9  1555.7
1220        DQ       0       0       0    47.7     248   381.8   533.6   701.5     884
            * DDM   ***** Preserved *****

1221        KK    DIV2
1222        KM        SPLIT OUT FLOW FOR WASHES THAT FLOW TO THE SOUTH FROM
1223        KM        WASHES THAT DRAIN TO THE WES, SOUTHERN WASHES FED BY 30" & 24" PIPE
1224        DT    WA30
1225        DI       0    11.1   127.9   189.6   329.7     408   491.9   579.4   671.7
1226        DQ       0    11.1    38.4    48.2      63    69.5      76      81      86
            * DDM   ***** Preserved *****

1227        KK    R456
1228        KM        ROUTE FLOW FROM SUB-BASIN 51 TO C101
1229        RS       2    FLOW      -1
1230        RC     .05    .035     .05    3800    .044
1231        RX    1000    1010    1020    1036    1041    1057    1067    1077
1232        RY   14.88   14.44      14      10      10      14   14.44   14.88
            * DDM   ***** Updated *****

1233        KK     457
1234        KM   SUB-BASIN 457
1235        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1236        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1237        KM     L = 1.01  Kb = .045  Adj. Slope =  308.8
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1238        BA    .190
1239        LG    .270    .330   3.950    .460   6.000
1240        UC    .237    .195
1241        UA       0       5      16      30      65      77      84      90      94      97
1242        UA     100
            * DDM   ***** Preserved *****

1243        KK    C101
1244        KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 50 AND 51
1245        HC       2
            * DDM   ***** Preserved *****

1246        KK    DIV3
1247        KM        RESERVOIR AT THE EDGE OF THE PROPERTY   FLOW FROM CHANNEL
1248        KM        DIVERTED  INTO OFFLINE BASIN A 25' WEIR SET AT ELEVATION 1808 FT
            *      1
1249        DT  BASIN2
1250        DI       0      36      70     110     180   313.5     402   500.9
1251        DQ       0       0       0       0       0    67.5     124   190.9
            * DDM   ***** Preserved *****
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LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1252        KK  RTDIV3
1253        KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
1254        DR  BASIN2
            * DDM   ***** Preserved *****

1255        KK  RFDIV3
1256        KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
1257        KM     5.0 ACRE-FEETx43560/36x3600=1.7cfs
1258        RS       1    STOR       0
1259        SV       0     .01       5
1260        SQ       0     1.7     1.7
            * DDM   ***** Preserved *****

1261        KK   CDIV3
1262        KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
1263        HC       2
            * DDM   ***** Preserved *****

1264        KK    R101
1265        KM        ROUTE FLOW FROM SUBBASIN C101 TO C103
1266        RS       1    FLOW      -1
1267        RC     .05    .035     .05    1450     .05
1268        RX    1000    1010    1020    1036    1041    1057    1067    1077
1269        RY      15    14.5      14      10      10      14    14.5      15
            * DDM   ***** Updated *****

1270        KK     458
1271        KM   SUB-BASIN 458
1272        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1273        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1274        KM     L =  .76  Kb = .048  Adj. Slope =  299.0
1275        BA    .190
1276        LG    .290    .330   5.800    .190   6.000
1277        UC    .204    .131
1278        UA       0       5      16      30      65      77      84      90      94      97
1279        UA     100
            * DDM   ***** Preserved *****

1280        KK    C103
1281        KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 55 AND C101
1282        HC       2
            * DDM   ***** Preserved *****

1283        KK    R103
1284        KM        ROUTE FLOW FROM SUBBASIN C103 TO C106
1285        RS       1    FLOW      -1
1286        RC     .05    .035     .05     900     .03
1287        RX    1000    1010    1020    1030    1050    1060    1070    1080
1288        RY   13.16   12.83    12.5      10      10    12.5   12.83   13.16
            * DDM   ***** Preserved *****
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LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1289        KK    RT30
1290        KM        RETRIEVE DIVERTED FLOW FOR WASH BELOW 30 INCH PIPE
1291        DR    WA30
            * DDM   ***** Preserved *****

1292        KK     R30
1293        KM        ROUTE FLOW FROM WASH DIVERSION TO COMBINE C52
1294        RS       1    FLOW      -1
1295        RC     .05    .035     .05    1630     .05
1296        RX    1000    1010    1020    1036    1041    1057    1067    1077
1297        RY      15    14.5      14      10      10      14    14.5      15
            * DDM   ***** Preserved *****

1298        KK    RTB1
1299        KM        RETRIEVE DIVERTED FLOW FROM BASIN 1
            *      1       2
1300        DR  BASIN1
            * DDM   ***** Preserved *****

1301        KK      B1
1302        KM        ROUTE FLOW THROUGH OFFLINE DETENTION BASIN
1303        KM        FLOW OUTLETS THROUGH A 30 INCH OUTLET PIPE
            *      1       2
1304        RS       1    ELEV       0
1305        SV              .7     1.4     2.3     2.7     3.2
1306        SQ       0       5      16      28    32.5      37
1307        SE       0       1       2       3     3.5       4
            * DDM   ***** Preserved *****

1308        KK     RB1
1309        KM        ROUTE FLOW FROM BASIN DIVERSION TO COMBINE C52
1310        RS       2    FLOW      -1
1311        RC     .05    .035     .05    1720     .05
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1312          RX    1000    1010    1020    1036    1041    1057    1067    1077
1313          RY      15    14.5      14      10      10      14    14.5      15
              * DDM   ***** Preserved *****

1314          KK    CDIV
1315          KM        COMBINE FLOWS FROM WA30 AND BASIN 1
1316          HC       2     .12
              * DDM   ***** Updated *****

1317          KK     459
1318          KM   SUB-BASIN 459
1319          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1320          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
1321          KM     L =  .35  Kb = .052  Adj. Slope =  251.6
1322          BA    .030
1323          LG    .220    .300   3.330    .710   8.000
1324          UC    .162    .157
1325          UA       0       5      16      30      65      77      84      90      94      97
1326          UA     100
              * DDM   ***** Preserved *****
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


1327          KK     C52
1328          KM        COMBINE FLOWS FROM SUB-BASIN 52 WA30 AND BASIN 1
1329          HC       2
              * DDM   ***** Preserved *****

1330          KK     R52
1331          KM        ROUTE FLOW FROM SUBBASIN 52 TO C102
1332          RS       2    FLOW      -1
1333          RC     .05    .035     .05    2000     .05
1334          RX    1000    1010    1020    1036    1041    1057    1067    1077
1335          RY      15    14.5      14      10      10      14    14.5      15
              * DDM   ***** Updated *****

1336          KK     460
1337          KM   SUB-BASIN 460
1338          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1339          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1340          KM     L =  .62  Kb = .058  Adj. Slope =  194.0
1341          BA    .140
1342          LG    .250    .260   3.740    .690  27.000
1343          UC    .242    .160
1344          UA       0       5      16      30      65      77      84      90      94      97
1345          UA     100
              * DDM   ***** Preserved *****

1346          KK    C102
1347          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 52 AND 53
1348          HC       2
              * DDM   ***** Preserved *****

1349          KK  BASIN3
1350          KM        RESERVOIR AT CLUBHOUSE LOCATION 1-30 INCH PIPE AT OUTFALL
1351          KM        BOTTOM OF BASIN AT 6 FEET ABOVE 1795 ELEVATION
1352          RS       1    ELEV       0
1353          SA       0       0       0       0     .34    1.59    1.81    1.96    2.13     2.3
              *      0       0       0       0    1.14    3.25    5.52    9.23
1354          SQ       0      22      45    47.4      48      51      57      62      67      73
1355          SE    1795  1797.5    1800  1800.4  1800.5    1801    1802    1803    1804  1805.5
              * DDM   ***** Preserved *****

1356          KK      R3
1357          KM        ROUTE FLOW FROM C102 to C106
1358          RS       4    FLOW      -1
1359          RC     .05     .03     .05    2750   .0375
1360          RX    1000    1010    1020    1052    1086    1118    1128    1138
1361          RY    19.2    18.4      18      10      10      18    18.4    19.2
              * DDM   ***** Updated *****

1362          KK     461
1363          KM   SUB-BASIN 461
1364          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1365          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1366          KM     L =  .83  Kb = .052  Adj. Slope =  181.0
1367          BA    .120
1                                    HEC-1 INPUT                                          PAGE 36

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

1368          LG    .270    .250   4.250    .450  21.000
1369          UC    .271    .250
1370          UA       0       5      16      30      65      77      84      90      94      97
1371          UA     100
              * DDM   ***** Preserved *****

1372          KK    C104
1373          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 54 AND R102
1374          HC       2
              * DDM   ***** Preserved *****

1375          KK    C106
1376          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN C103 AND C104
1377          HC       2
              * DDM   ***** Preserved *****

1378          KK    R106
1379          KM        ROUTE FLOW FROM C106 TO C49
1380          RS       2    FLOW      -1
1381          RC     .05    .035     .05    3950    .033
1382          RX    1000    1010    1020    1030    1050    1060    1070    1080
1383          RY   13.16   12.83    12.5      10      10    12.5   12.83   13.16
              * DDM   ***** Updated *****

1384          KK     462
1385          KM   SUB-BASIN 462
1386          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1387          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
1388          KM     L =  .97  Kb = .045  Adj. Slope =  297.7
1389          BA    .301
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1390          LG    .300    .330   5.300    .240  12.000
1391          UC    .225    .137
1392          UA       0       5      16      30      65      77      84      90      94      97
1393          UA     100
              * DDM   ***** Preserved *****

1394          KK     C56
1395          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 56 AND C106
              *      1       2
1396          HC       2
              * DDM   ***** Updated *****

1397          KK     480
1398          KM   SUB-BASIN 480
1399          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1400          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
1401          KM     L = 1.21  Kb = .042  Adj. Slope =  165.0
1402          BA    .731
1403          LG    .270    .270   3.580    .730  27.000
1404          UC    .325    .148
1405          UA       0       5      16      30      65      77      84      90      94      97
1406          UA     100
              * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 37

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

1407          KK    D480
1408          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
1409          KM   DETENTION/RETENTION BASINS LOCATED WITHIN LAS SENDAS ADDENDUM III
1410          KM   FOR BASIN #: 18 & 26
1411          KM        MAXIMUM VOLUME DIVERSION = 16.5 acre-feet
              *      1
1412          DT   BS480    16.5
1413          DI       0   10000
1414          DQ       0   10000
              * DDM   ***** Preserved *****

1415          KK   RT480
1416          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
1417          DR   BS480
              * DDM   ***** Preserved *****

1418          KK   SR480
1419          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
1420          KM    16.5 ACRE-FEETx43560/36x3600=5.5cfs
1421          RS       1    STOR       0
1422          SV       0     .01    16.5
1423          SQ       0     5.6     5.6
              * DDM   ***** Preserved *****

1424          KK    C480
1425          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
1426          HC       2
              * DDM   ***** Preserved *****

1427          KK    480C
1428          KM   HYDROGRAPH COMBINATION FOR THE ENTIRE WATERSHED AT THE SALT RIVER
1429          HC       3    2.09
              * DDM   ***** Preserved *****

1430          KK   RR480
1431          KM   ROUTE FLOW FROM SUB-BASIN 480 TO SUB-BASIN 500
1432          RS       1    FLOW      -1
1433          RC    .025    .025    .025    6500     .05
1434          RX       0       1       2      28      58      84      85      86
1435          RY    13.5    13.5    13.5       0       0    13.5    13.5    13.5
              * DDM   ***** Updated *****

1436          KK     500
1437          KM   SUB-BASIN 500
1438          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1439          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
1440          KM     L = 2.77  Kb = .042  Adj. Slope =  286.8
1441          BA    .930
1442          LG    .350    .400   6.000    .170   9.000
1443          UC    .421    .333
1444          UA       0       3       5       8      12      20      43      75      90      96
1445          UA     100
              * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 38

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

1446          KK    500C
1447          KM   HYDROGRAPH COMBINATION FOR THE ENTIRE WATERSHED AT THE SALT RIVER
1448          HC       2    2.84
1449          ZZ
```

SCHEMATIC DIAGRAM OF STREAM NETWORK

```
INPUT
 LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

  NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

  43          10
               V
               V
  53         R10
               .
               .
  59           .          20
               .           .
               .           .
  69         C20............
               .
               .
  72           .          40
               .           .
               .           .
  82           .           .          60
               .           .           .
               .           .           .
  92         60C......................
               V
               V
  95        SR60
               V
               V
 104         R60
               V
               V
 110        RR60
               .
               .
 116           .          80
               .           .
               .           .
 126         80C............
               V
               V
 129         R80
               .
               .
 135           .         100
               .           .
               .           .
 145        100C............
               V
               V
 148        R100
               .
               .
 154           .         120
               .           .
               .           .
 164        120C............
               V
               V
 167        R120
               .
               .
 173           .         140
               .           .
               .           .
 183           .           .        150
               .           .          V
               .           .          V
 193           .           .       R150
               .           .          .
               .           .          .
 199           .           .          .        160
               .           .          .          .
               .           .          .          .
 209           .           .          .          .         180
               .           .          .          .           .
               .           .          .          .           .
 219        180C...............................................
               .
               .
 222           .         240
               .           V
               .           V
 232           .        R240
               .           .
               .           .
 239           .           .        210
               .           .          V
               .           .          V
 249           .           .       R210
               .           .          .
               .           .          .
 255           .           .          .        220
               .           .          .          .
               .           .          .          .
 265           .        220C......................
               .           V
               .           V
 268           .        R220
               .           .
               .           .
 275           .           .        190
               .           .          V
               .           .          V
 285           .           .       R190
               .           .          .
               .           .          .
 291           .           .          .        200
               .           .          .          .
               .           .          .          .
 301           .        200C......................
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                .          V
                .          V
304             .       R200
                .          .
                .          .
310          C180............
                V
                V
313         SR180
                V
                V
322          R180
                .
                .
328             .        260
                .          .
                .          .
338          260C...........
                V
                V
341          R260
                .
                .
347             .        280
                .          .
                .          .
357          280C...........
                V
                V
360          R280
                .
                .
366             .        300
                .          .
                .          .
376          300C...........
                V
                V
379          R300
                V
                V
385         RR300
                .
                .
391             .        350
                .          .
                .          .
404             .          .------->   SF350
401             .       D350
                .          V
                .          V
407             .       350R
                .          .
                .          .
413             .          .        310
                .          .          .
                .          .          .
423             .       C310...........
                .          V
                .          V
426             .       R310
                .          .
                .          .
432             .          .        320
                .          .          .
                .          .          .
447             .          .          .------->   BS320
442             .          .       D320
                .          .          .
                .          .          .
452             .          .          .          .<-------   BS320
450             .          .          .      RT320
                .          .          .          V
                .          .          .          V
453             .          .          .      SR320
                .          .          .          .
                .          .          .          .
459          C320...................................
                V
                V
462          R320
                .
                .
469             .        340
                .          .
                .          .
484             .          .------->   BS340
479             .       D340
                .          .
                .          .
489             .          .          .<-------   BS340
487             .          .      RT340
                .          .          V
                .          .          V
490             .          .      SR340
                .          .          .
                .          .          .
496          C340........................
                V
                V
499          R340
                .
                .
508             .          .<-------   SF350
506             .      RT350
                .          V
                .          V
509             .      RR350
                .          .
                .          .
515             .          .        355
                .          .          .
                .          .          .
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525          .        C355............
             .           V
             .           V
528          .        R355
             .           .
             .           .
534          .           .        360
             .           .          .
             .           .          .
548          .           .          .-------->   BS360
544          .           .       D360
             .           .          .
             .           .          .
553          .           .          .          .<-------   BS360
551          .           .          .      RT360
             .           .          .          V
             .           .          .          V
554          .           .          .      SR360
             .           .          .          .
             .           .          .          .
560       360C...................................
             V
             V
563       R360
             .
             .
570          .         370
             .           V
             .           V
580          .        R370
             .           .
             .           .
586          .           .        395
             .           .          V
             .           .          V
596          .           .       R395
             .           .          .
             .           .          .
602          .           .          .        380
             .           .          .          .
             .           .          .          .
616          .           .          .          .-------->   BS380
612          .           .          .      D380
             .           .          .          .
             .           .          .          .
621          .           .          .          .          .<-------   BS380
619          .           .          .          .      RT380
             .           .          .          .          V
             .           .          .          .          V
622          .           .          .          .      SR380
             .           .          .          .          .
             .           .          .          .          .
628       380C...............................................
             .
             .
635          .-------->    380S
631       380D
             .
             .
640          .           .<-------    380S
638          .        TR380
             .           V
             .           V
641          .        380SR
             .           .
             .           .
648       C380............
             V
             V
651       R380
             .
             .
658          .         390
             .           .
             .           .
672          .           .-------->   BS390
668          .        D390
             .           .
             .           .
677          .           .          .<-------   BS390
675          .           .       RT390
             .           .          V
             .           .          V
678          .           .       SR390
             .           .          .
             .           .          .
684          .        390C............
             .           V
             .           V
687          .        RR390
             .           .
             .           .
693          .           .        400
             .           .          .
             .           .          .
707          .           .          .-------->   BS400
703          .           .       D400
             .           .          .
             .           .          .
712          .           .          .          .<-------   BS400
710          .           .          .      RT400
             .           .          .          V
             .           .          .          V
713          .           .          .      SR400
             .           .          .          .
             .           .          .          .
719          .           .       C400............
             .           .          .
             .           .          .
722       400C........................
             V
             V
725       R400
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732          385
744          .------->  SF385
742        D385
             V
             V
747        385R
753                420
767                .------->  BS420
763              D420
772                          .<-------  BS420
770                      RT420
                             V
                             V
773                      SR420
779      420C.................................
           V
           V
782      R420
789          440
               V
               V
799          R70
805                441
815        C108............
820          .------->  SPLIT
818        DIV4
               V
               V
823        R108
829                442
839          C67............
845          .------->  BASIN4
842        DIV6
850                          .<-------  BASIN4
848                  RTDIV6
                         V
                         V
851                  RFDIV6
857       CDIV6............
860                443
873                .------->  WSH66
870              DIV66
                     V
                     V
876               R113
882        C114............
885                444
                     V
                     V
895                R58
901                          445
                             V
911               C107............
                     V
                     V
914               R107
922                          .<-------  SPLIT
920                      RTB2
                             V
                             V
923                   RSPLIT
929                                     446
939               C109........................
945                .------->  WSH404
```

```
942                 DIV5
                     V
                     V
948                 R109
                      .
                      .
954                      447
                          .
                          .
966                          .<-------  WSH404
964                      RT404
                             V
                             V
967                      R404
                          .
                          .
973                 C110......................
                     V
                     V
976                 R110
                      .
                      .
982            C115............
                V
                V
985            R115
                .
                .
992                 448
                      .
                      .
1002                     449
                          .
                          .
1012           C6364............
                     V
                     V
1015           R6364
                      .
                      .
1021                     450
                          .
                          .
1031                         .        451
                             .          .
                             .          .
1043                         .          .          .<-------   WSH66
1041                         .          .       RT66
                             .          .          .
                             .          .          .
1044                         .          .          .         452
                             .          .          .           .
                             .          .          .           .
1054                         .          .      C6465............
                             .          .          V
                             .          .          V
1057                         .          .      R6566
                             .          .          .
                             .          .          .
1063                 C116.................................
                     V
                     V
1066               BASIN5
                     V
                     V
1073                 R116
                      .
                      .
1079                     453
                          .
                          .
1089                 C117............
                      .
                      .
1092           C118............
                V
                V
1095           R118
                .
                .
1104            .-------> BASIN6
1101           DIV7
                .
                .
1109                 .<-------  BASIN6
1107               RTDIV7
                     V
                     V
1110               RFDIV7
                      .
                      .
1116           CDIV7............
                .
                .
1119                 454
                      .
                      .
1129           C119............
                V
                V
1132           R454
                .
                .
1138                 415
                      .
                      .
1150                     .<--------   SF385
1148                 RT385
                         V
                         V
1151                 RR385
                      .
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1157          .        415C.......................
              .          V
              .          V
1160          .        R415
              .          .
              .          .
1166          .          .        455
              .          .          .
              .          .          .
1181          .          .          .-------->   BS455
1176          .          .       D455
              .          .          .
              .          .          .
1186          .          .          .          .<-------   BS455
1184          .          .          .      RT455
              .          .          .          V
              .          .          .          V
1187          .          .          .      SR455
              .          .          .          .
              .          .          .          .
1193          .          .       C455............
              .          .          .
              .          .          .
1196       455C.......................
              V
              V
1199      RR455
              .
              .
1205          .         456
              .          .
              .          .
1218          .          .-------->  BASIN1
1215          .        DIV1
              .          .
              .          .
1224          .          .-------->    WA30
1221          .        DIV2
              .          V
              .          V
1227          .        R456
              .          .
              .          .
1233          .          .        457
              .          .          .
              .          .          .
1243          .        C101............
              .          .
              .          .
1249          .          .-------->  BASIN2
1246          .        DIV3
              .          .
              .          .
1254          .          .          .<-------  BASIN2
1252          .          .     RTDIV3
              .          .          V
              .          .          V
1255          .          .     RFDIV3
              .          .          .
              .          .          .
1261          .       CDIV3...........
              .          V
              .          V
1264          .        R101
              .          .
              .          .
1270          .          .        458
              .          .          .
              .          .          .
1280          .        C103............
              .          V
              .          V
1283          .        R103
              .          .
              .          .
1291          .          .          .<-------    WA30
1289          .          .       RT30
              .          .          V
              .          .          V
1292          .          .        R30
              .          .          .
              .          .          .
1300          .          .          .          .<-------  BASIN1
1298          .          .          .      RTB1
              .          .          .          V
              .          .          .          V
1301          .          .          .         B1
              .          .          .          V
              .          .          .          V
1308          .          .          .        RB1
              .          .          .          .
              .          .          .          .
1314          .          .       CDIV............
              .          .          .
              .          .          .
1317          .          .          .        459
              .          .          .          .
              .          .          .          .
1327          .          .        C52............
              .          .          V
              .          .          V
1330          .          .        R52
              .          .          .
              .          .          .
1336          .          .          .        460
              .          .          .          .
              .          .          .          .
1346          .          .       C102............
              .          .          V
              .          .          V
1349          .          .     BASIN3
              .          .          V
              .          .          V
```

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1356          .           .          R3
              .           .           .
              .           .           .
1362          .           .           .        461
              .           .           .          .
              .           .           .          .
1372          .           .       C104............
              .           .           .
              .           .           .
1375          .       C106............
              .          V
              .          V
1378          .       R106
              .           .
              .           .
1384          .           .        462
              .           .           .
              .           .           .
1394          .        C56............
              .           .
              .           .
1397          .           .        480
              .           .           .
              .           .           .
1412          .           .           .-------->   BS480
1407          .           .       D480
              .           .           .
              .           .           .
1417          .           .           .          .<-------   BS480
1415          .           .           .      RT480
              .           .           .          V
              .           .           .          V
1418          .           .           .      SR480
              .           .           .          .
              .           .           .          .
1424          .           .       C480............
              .           .           .
              .           .           .
1427       480C........................
           V
           V
1430      RR480
              .
              .
1436          .        500
              .           .
              .           .
1446       500C............
```

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

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

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	10	951.	12.27	114.	31.	15.	.70		
+	ROUTED TO	R10	826.	12.60	114.	31.	15.	.70		
+	HYDROGRAPH AT	20	959.	12.43	128.	32.	16.	1.12		
+	2 COMBINED AT	C20	1635.	12.53	240.	63.	30.	1.82		
+	HYDROGRAPH AT	40	2582.	12.30	252.	66.	32.	2.23		
+	HYDROGRAPH AT	60	1553.	12.40	228.	61.	29.	1.75		
+	3 COMBINED AT	60C	5014.	12.37	708.	188.	90.	5.80		
+	ROUTED TO	SR60	92.	14.47	92.	89.	70.	5.80		
+	ROUTED TO	R60	92.	14.53	92.	89.	70.	5.80		
+	ROUTED TO	RR60	92.	14.63	92.	89.	70.	5.80		
+	HYDROGRAPH AT	80	1868.	12.27	179.	46.	22.	1.48		
+	2 COMBINED AT	80C	1942.	12.27	266.	134.	92.	1.48		
+	ROUTED TO	R80	1919.	12.27	266.	134.	92.	1.48		
+	HYDROGRAPH AT	100	404.	12.20	58.	15.	7.	.48		
+	2 COMBINED AT	100C	2300.	12.27	321.	148.	99.	1.96		
+	ROUTED TO	R100	2292.	12.30	321.	148.	99.	1.96		
+	HYDROGRAPH AT	120	3232.	12.27	326.	88.	42.	2.20		
+	2 COMBINED AT	120C	5469.	12.27	636.	229.	140.	4.16		
+	ROUTED TO	R120	5397.	12.30	636.	229.	140.	4.16		
+	HYDROGRAPH AT	140	632.	12.13	64.	17.	8.	.60		
+	HYDROGRAPH AT	150	135.	13.20	47.	13.	6.	.41		
+	ROUTED TO	R150	132.	13.67	47.	13.	6.	.41		
+	HYDROGRAPH AT	160	217.	12.40	35.	9.	4.	.37		
+	HYDROGRAPH AT	180	785.	12.37	90.	23.	11.	1.00		
+	5 COMBINED AT	180C	6707.	12.30	856.	286.	168.	6.54		
+	HYDROGRAPH AT	240	1405.	12.30	155.	39.	19.	1.40		
+	ROUTED TO	R240	1355.	12.37	155.	39.	19.	1.40		
+	HYDROGRAPH AT	210	870.	12.20	80.	21.	10.	.58		
+	ROUTED TO	R210	799.	12.30	80.	21.	10.	.58		
+	HYDROGRAPH AT	220	1126.	12.17	98.	25.	12.	.73		
+	3 COMBINED AT	220C	2850.	12.30	328.	84.	41.	2.71		
+	ROUTED TO	R220	2850.	12.30	328.	84.	41.	2.71		
+	HYDROGRAPH AT	190	1403.	12.17	116.	31.	15.	.92		
+	ROUTED TO	R190	1272.	12.30	116.	31.	15.	.92		
+	HYDROGRAPH AT	200	703.	12.20	69.	19.	9.	.54		

+	3 COMBINED AT	200C	4638.	12.30	507.	133.	64.	4.16
+	ROUTED TO	R200	4607.	12.30	506.	133.	64.	4.16
	2 COMBINED AT	C180	11175.	12.30	1343.	410.	229.	10.69
+	ROUTED TO	SR180	141.	16.93	141.	140.	115.	10.69
+	ROUTED TO	R180	141.	17.00	141.	140.	115.	10.69
+	HYDROGRAPH AT	260	418.	12.10	43.	12.	6.	.27
+	2 COMBINED AT	260C	528.	12.13	179.	151.	122.	.27
+	ROUTED TO	R260	510.	12.20	179.	151.	121.	.27
+	HYDROGRAPH AT	280	478.	12.10	42.	12.	6.	.30
+	2 COMBINED AT	280C	942.	12.13	219.	161.	127.	.57
+	ROUTED TO	R280	906.	12.20	218.	161.	126.	.57
+	HYDROGRAPH AT	300	875.	12.20	109.	29.	14.	.99
+	2 COMBINED AT	300C	1766.	12.20	324.	188.	140.	1.56
+	ROUTED TO	R300	1729.	12.27	324.	188.	139.	1.56
+	ROUTED TO	RR300	1696.	12.30	324.	188.	139.	1.56
+	HYDROGRAPH AT	350	1192.	12.20	103.	27.	13.	.97
+	DIVERSION TO	SF350	715.	12.20	62.	16.	8.	.97
+	HYDROGRAPH AT	D350	477.	12.20	41.	11.	5.	.97
	ROUTED TO	350R	441.	12.37	41.	11.	5.	.97
+	HYDROGRAPH AT	310	376.	12.33	49.	12.	6.	.56
+	2 COMBINED AT	C310	812.	12.33	89.	23.	11.	.94
+	ROUTED TO	R310	730.	12.60	89.	23.	11.	.94
+	HYDROGRAPH AT	320	965.	12.20	123.	34.	17.	.97
+	DIVERSION TO	BS320	377.	11.97	21.	6.	3.	.97
+	HYDROGRAPH AT	D320	965.	12.20	109.	28.	14.	.97
+	HYDROGRAPH AT	RT320	377.	11.97	21.	6.	3.	.97
+	ROUTED TO	SR320	4.	4.13	4.	4.	3.	.97
+	4 COMBINED AT	C320	2531.	12.30	519.	241.	165.	3.47
+	ROUTED TO	R320	2504.	12.37	519.	241.	164.	3.47
+	HYDROGRAPH AT	340	1471.	12.17	186.	55.	26.	1.45
+	DIVERSION TO	BS340	1471.	12.17	104.	28.	14.	1.45
+	HYDROGRAPH AT	D340	1199.	12.33	97.	27.	13.	1.45
+	HYDROGRAPH AT	RT340	1471.	12.17	104.	28.	14.	1.45
+	ROUTED TO	SR340	19.	9.00	19.	19.	14.	1.45
	3 COMBINED AT	C340	3664.	12.33	629.	285.	190.	4.92
+	ROUTED TO	R340	3604.	12.40	628.	285.	190.	4.92
+	HYDROGRAPH AT	RT350	715.	12.20	62.	16.	8.	.97
+	ROUTED TO	RR350	659.	12.37	62.	16.	8.	.97

+	HYDROGRAPH AT	355	500.	12.33	69.	18.	9.	.66
+	2 COMBINED AT	C355	1144.	12.33	130.	34.	16.	1.24
+	ROUTED TO	R355	1036.	12.60	130.	34.	16.	1.24
+	HYDROGRAPH AT	360	504.	12.23	84.	25.	12.	.67
+	DIVERSION TO	BS360	504.	12.23	53.	14.	7.	.67
+	HYDROGRAPH AT	D360	306.	12.63	38.	11.	5.	.67
+	HYDROGRAPH AT	RT360	504.	12.23	53.	14.	7.	.67
+	ROUTED TO	SR360	10.	9.83	10.	10.	7.	.67
+	4 COMBINED AT	360C	4256.	12.63	795.	336.	216.	6.83
+	ROUTED TO	R360	4144.	12.67	794.	336.	216.	6.83
+	HYDROGRAPH AT	370	588.	12.30	79.	21.	10.	.67
+	ROUTED TO	R370	525.	12.63	79.	21.	10.	.67
+	HYDROGRAPH AT	395	182.	12.23	25.	7.	3.	.20
+	ROUTED TO	R395	157.	12.67	25.	7.	3.	.20
+	HYDROGRAPH AT	380	666.	12.27	98.	26.	13.	.97
+	DIVERSION TO	BS380	666.	12.27	56.	14.	7.	.97
+	HYDROGRAPH AT	D380	472.	12.57	46.	12.	6.	.97
+	HYDROGRAPH AT	RT380	666.	12.27	56.	14.	7.	.97
+	ROUTED TO	SR380	10.	11.33	10.	10.	7.	.97
+	5 COMBINED AT	380C	5160.	12.63	942.	381.	240.	8.67
+	DIVERSION TO	380S	4560.	12.63	550.	138.	66.	8.67
+	HYDROGRAPH AT	380D	600.	12.23	392.	244.	174.	8.67
+	HYDROGRAPH AT	TR380	4560.	12.63	550.	138.	66.	8.67
+	ROUTED TO	380SR	1683.	13.17	565.	291.	244.	8.67
+	2 COMBINED AT	C380	2283.	13.17	956.	535.	418.	8.67
+	ROUTED TO	R380	2260.	13.30	956.	535.	417.	8.67
+	HYDROGRAPH AT	390	463.	12.03	33.	10.	5.	.24
+	DIVERSION TO	BS390	95.	11.73	6.	2.	1.	.24
+	HYDROGRAPH AT	D390	463.	12.03	30.	8.	4.	.24
+	HYDROGRAPH AT	RT390	95.	11.73	6.	2.	1.	.24
+	ROUTED TO	SR390	1.	.90	1.	1.	1.	.24
+	2 COMBINED AT	390C	464.	12.03	31.	9.	5.	.24
+	ROUTED TO	RR390	367.	12.30	31.	9.	5.	.24
+	HYDROGRAPH AT	400	351.	12.23	47.	13.	6.	.62
+	DIVERSION TO	BS400	262.	12.10	10.	3.	1.	.62
+	HYDROGRAPH AT	D400	351.	12.23	39.	10.	5.	.62
+	HYDROGRAPH AT	RT400	262.	12.10	10.	3.	1.	.62
+	ROUTED TO	SR400	2.	8.70	2.	2.	1.	.62

2 COMBINED AT	C400	353.	12.23	41.	12.	6.	.62
3 COMBINED AT	400C	2310.	13.30	1021.	555.	428.	9.53
ROUTED TO	R400	2289.	13.43	1019.	554.	427.	9.53
HYDROGRAPH AT	385	782.	12.23	87.	24.	12.	.65
DIVERSION TO	SF385	313.	12.23	35.	10.	5.	.65
HYDROGRAPH AT	D385	469.	12.23	52.	14.	7.	.65
ROUTED TO	385R	410.	12.50	52.	14.	7.	.65
HYDROGRAPH AT	420	752.	12.20	92.	26.	12.	.85
DIVERSION TO	BS420	269.	11.97	15.	4.	2.	.85
HYDROGRAPH AT	D420	752.	12.20	83.	22.	10.	.85
HYDROGRAPH AT	RT420	269.	11.97	15.	4.	2.	.85
ROUTED TO	SR420	13.	11.03	12.	4.	2.	.85
4 COMBINED AT	420C	2371.	13.40	1145.	588.	445.	10.77
ROUTED TO	R420	2356.	13.50	1144.	588.	444.	10.77
HYDROGRAPH AT	440	180.	12.03	12.	3.	2.	.08
ROUTED TO	R70	176.	12.07	12.	3.	2.	.08
HYDROGRAPH AT	441	16.	12.03	1.	0.	0.	.01
2 COMBINED AT	C108	191.	12.07	14.	4.	2.	.09
DIVERSION TO	SPLIT	96.	12.07	7.	2.	1.	.09
HYDROGRAPH AT	DIV4	96.	12.07	7.	2.	1.	.09
ROUTED TO	R108	88.	12.13	7.	2.	1.	.09
HYDROGRAPH AT	442	102.	12.10	9.	2.	1.	.10
2 COMBINED AT	C67	187.	12.10	15.	4.	2.	.19
DIVERSION TO	BASIN4	115.	12.10	6.	1.	1.	.19
HYDROGRAPH AT	DIV6	72.	12.10	10.	3.	1.	.19
HYDROGRAPH AT	RTDIV6	115.	12.10	6.	1.	1.	.19
ROUTED TO	RFDIV6	1.	11.90	1.	1.	1.	.19
2 COMBINED AT	CDIV6	74.	12.10	10.	4.	2.	.19
HYDROGRAPH AT	443	148.	12.07	14.	4.	2.	.08
DIVERSION TO	WSH66	78.	11.90	12.	3.	2.	.08
HYDROGRAPH AT	DIV66	70.	12.07	3.	1.	0.	.08
ROUTED TO	R113	69.	12.07	3.	1.	0.	.08
2 COMBINED AT	C114	140.	12.07	13.	4.	2.	.27
HYDROGRAPH AT	444	82.	12.03	5.	1.	1.	.04
ROUTED TO	R58	78.	12.07	5.	1.	1.	.04
HYDROGRAPH AT	445	296.	12.03	18.	5.	2.	.19
2 COMBINED AT	C107	368.	12.03	22.	6.	3.	.23
ROUTED TO	R107	368.	12.07	22.	6.	3.	.23

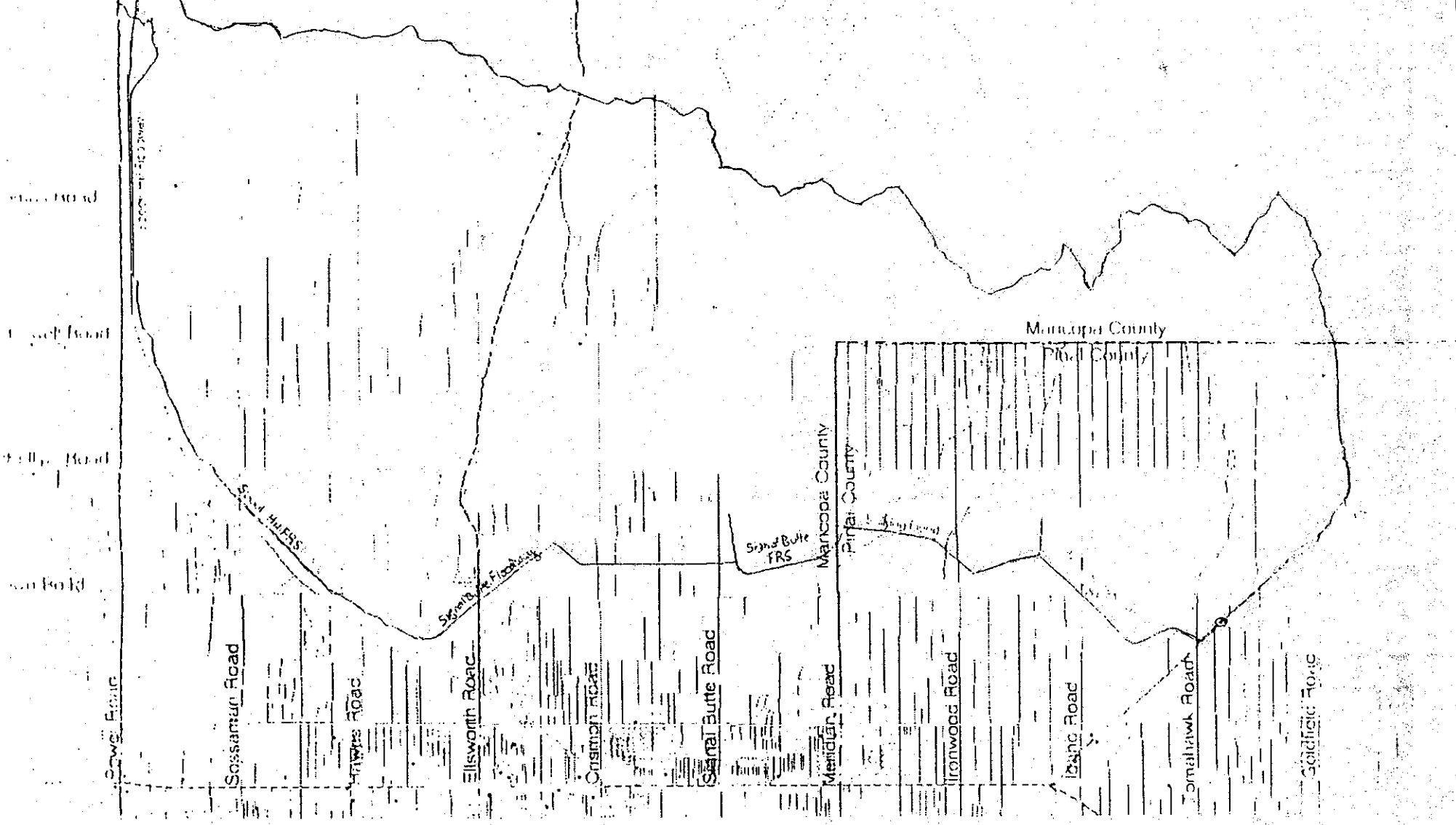
+	HYDROGRAPH AT	RTB2	96.	12.07	7.	2.	1.	.09
+	ROUTED TO	RSPLIT	95.	12.07	7.	2.	1.	.09
+	HYDROGRAPH AT	446	65.	12.03	6.	2.	1.	.04
+	3 COMBINED AT	C109	523.	12.07	35.	9.	4.	.27
+	DIVERSION TO	WSH404	35.	11.73	7.	2.	1.	.27
+	HYDROGRAPH AT	DIV5	488.	12.07	27.	7.	3.	.27
+	ROUTED TO	R109	472.	12.10	27.	7.	3.	.27
+	HYDROGRAPH AT	447	138.	12.07	12.	4.	2.	.09
+	HYDROGRAPH AT	RT404	35.	11.73	7.	2.	1.	.27
+	ROUTED TO	R404	35.	11.90	7.	2.	1.	.27
+	3 COMBINED AT	C110	637.	12.07	46.	13.	6.	.36
+	ROUTED TO	R110	635.	12.10	46.	13.	6.	.36
+	2 COMBINED AT	C115	767.	12.10	59.	17.	8.	.63
+	ROUTED TO	R115	770.	12.10	59.	17.	8.	.63
+	HYDROGRAPH AT	448	88.	12.03	6.	2.	1.	.05
+	HYDROGRAPH AT	449	80.	12.03	5.	1.	1.	.05
+	2 COMBINED AT	C6364	166.	12.03	11.	3.	1.	.09
+	ROUTED TO	R6364	137.	12.17	11.	3.	1.	.09
+	HYDROGRAPH AT	450	61.	12.20	6.	2.	1.	.07
+	HYDROGRAPH AT	451	18.	12.17	2.	1.	0.	.03
+	HYDROGRAPH AT	RT66	78.	11.90	12.	3.	2.	.08
+	HYDROGRAPH AT	452	62.	12.03	4.	1.	1.	.04
+	2 COMBINED AT	C6465	140.	12.03	16.	4.	2.	.04
+	ROUTED TO	R6566	135.	12.10	16.	4.	2.	.04
+	4 COMBINED AT	C116	341.	12.17	35.	9.	4.	.23
+	ROUTED TO	BASIN5	152.	12.47	35.	9.	4.	.23
+	ROUTED TO	R116	150.	12.53	35.	9.	4.	.23
+	HYDROGRAPH AT	453	62.	12.10	7.	2.	1.	.06
+	2 COMBINED AT	C117	169.	12.50	41.	11.	5.	.29
+	2 COMBINED AT	C118	855.	12.10	99.	28.	14.	.92
+	ROUTED TO	R118	845.	12.10	99.	28.	14.	.92
+	DIVERSION TO	BASIN6	244.	12.10	10.	2.	1.	.92
+	HYDROGRAPH AT	DIV7	600.	12.10	89.	25.	13.	.92
+	HYDROGRAPH AT	RTDIV7	244.	12.10	10.	2.	1.	.92
+	ROUTED TO	RFDIV7	1.	11.97	1.	1.	1.	.92
+	2 COMBINED AT	CDIV7	601.	12.10	90.	26.	13.	.92
+	HYDROGRAPH AT	454	157.	12.17	21.	6.	3.	.18
+	2 COMBINED AT	C119	750.	12.13	110.	32.	16.	1.10

+	ROUTED TO	R454	682.	12.40	110.	32.	16.	1.10
+	HYDROGRAPH AT	415	412.	12.17	55.	16.	7.	.45
+	HYDROGRAPH AT	RT385	313.	12.23	35.	10.	5.	.65
+	ROUTED TO	RR385	285.	12.40	35.	10.	5.	.65
+	3 COMBINED AT	415C	1254.	12.37	196.	56.	28.	1.55
+	ROUTED TO	R415	1225.	12.43	196.	56.	28.	1.55
+	HYDROGRAPH AT	455	1346.	12.13	142.	43.	21.	1.11
+	DIVERSION TO	BS455	1346.	12.13	137.	37.	18.	1.11
+	HYDROGRAPH AT	D455	55.	12.77	16.	6.	3.	1.11
+	HYDROGRAPH AT	RT455	1346.	12.13	137.	37.	18.	1.11
+	ROUTED TO	SR455	25.	10.47	25.	25.	18.	1.11
+	2 COMBINED AT	C455	80.	12.77	41.	31.	21.	1.11
+	3 COMBINED AT	455C	3033.	12.57	1344.	663.	489.	13.43
+	ROUTED TO	RR455	2916.	12.80	1342.	663.	487.	13.43
+	HYDROGRAPH AT	456	468.	12.07	35.	10.	5.	.26
+	DIVERSION TO	BASIN1	184.	12.07	8.	2.	1.	.26
+	HYDROGRAPH AT	DIV1	284.	12.07	27.	8.	4.	.26
+	DIVERSION TO	WA30	58.	12.07	10.	3.	2.	.26
+	HYDROGRAPH AT	DIV2	226.	12.07	18.	4.	2.	.26
+	ROUTED TO	R456	213.	12.13	18.	4.	2.	.26
+	HYDROGRAPH AT	457	264.	12.07	20.	5.	3.	.19
+	2 COMBINED AT	C101	462.	12.10	38.	10.	5.	.45
+	DIVERSION TO	BASIN2	165.	12.10	7.	2.	1.	.45
+	HYDROGRAPH AT	DIV3	297.	12.10	30.	8.	4.	.45
+	HYDROGRAPH AT	RTDIV3	165.	12.10	7.	2.	1.	.45
+	ROUTED TO	RFDIV3	2.	11.90	2.	2.	1.	.45
+	2 COMBINED AT	CDIV3	299.	12.10	32.	9.	5.	.45
+	ROUTED TO	R101	297.	12.10	32.	9.	5.	.45
+	HYDROGRAPH AT	458	356.	12.03	25.	7.	3.	.19
+	2 COMBINED AT	C103	635.	12.07	56.	16.	8.	.64
+	ROUTED TO	R103	630.	12.07	56.	16.	8.	.64
+	HYDROGRAPH AT	RT30	58.	12.07	10.	3.	2.	.26
+	ROUTED TO	R30	57.	12.10	10.	3.	2.	.26
+	HYDROGRAPH AT	RTB1	184.	12.07	8.	2.	1.	.26
	ROUTED TO	B1	37.	12.23	8.	2.	1.	.26
	ROUTED TO	RB1	37.	12.30	8.	2.	1.	.26
+	2 COMBINED AT	CDIV	86.	12.20	17.	5.	3.	.12
+	HYDROGRAPH AT	459	44.	12.03	3.	1.	0.	.03

+	2 COMBINED AT	C52	113.	12.10	20.	6.	3.	.15
+	ROUTED TO	R52	112.	12.17	20.	6.	3.	.15
+	HYDROGRAPH AT	460	214.	12.07	19.	6.	3.	.14
+	2 COMBINED AT	C102	313.	12.07	39.	12.	6.	.29
+	ROUTED TO	BASIN3	71.	12.63	39.	12.	6.	.29
+	ROUTED TO	R3	71.	12.77	39.	12.	6.	.29
+	HYDROGRAPH AT	461	161.	12.10	17.	5.	2.	.12
+	2 COMBINED AT	C104	213.	12.10	55.	17.	8.	.41
+	2 COMBINED AT	C106	835.	12.07	110.	32.	16.	1.05
+	ROUTED TO	R106	797.	12.13	110.	32.	16.	1.05
+	HYDROGRAPH AT	462	538.	12.07	40.	11.	5.	.30
+	2 COMBINED AT	C56	1254.	12.10	149.	42.	21.	1.35
+	HYDROGRAPH AT	480	1050.	12.10	96.	29.	14.	.73
+	DIVERSION TO	BS480	455.	11.90	27.	8.	4.	.73
+	HYDROGRAPH AT	D480	1050.	12.10	78.	21.	10.	.73
+	HYDROGRAPH AT	RT480	455.	11.90	27.	8.	4.	.73
+	ROUTED TO	SR480	6.	3.90	6.	6.	4.	.73
+	2 COMBINED AT	C480	1056.	12.10	84.	27.	14.	.73
+	3 COMBINED AT	480C	3290.	12.77	1620.	746.	531.	2.09
+	ROUTED TO	RR480	3255.	12.80	1619.	746.	531.	2.09
+	HYDROGRAPH AT	500	1073.	12.27	122.	33.	16.	.93
+	2 COMBINED AT	500C	3514.	12.77	1728.	774.	545.	2.84

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

SPOOK HILL ADMP



HEC-1 Existing Condition 100-Year, 24-Hour Storm. Pass Mountain Diversion

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1****************************************
*                                      *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *
*             JUN  1998                *
*           VERSION 4.1                *
*                                      *
*  RUN DATE  26APR00  TIME  08:41:29   *
*                                      *
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*                                      *
*   U.S. ARMY CORPS OF ENGINEERS       *
*   HYDROLOGIC ENGINEERING CENTER      *
*         609 SECOND STREET            *
*      DAVIS, CALIFORNIA 95616         *
*          (916) 756-1104              *
*                                      *
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X     X  XXXXXXX   XXXXX          X
X     X  X        X     X        XX
X     X  X        X              X
XXXXXXX  XXXX     X        XXXXX X
X     X  X        X              X
X     X  X        X     X        X
X     X  XXXXXXX   XXXXX        XXX
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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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1                                    HEC-1 INPUT                                                    PAGE  1

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

  1           ID   EXISTING LAND USE CALCULATIONS WERE BASED ON 1 YR. FROM 11/5/99
  2           ID   FOR LAS SENDAS       AND LANDISCOR JAN.1999 AERIAL PHOTOGPRAPHS
  3           ID
  4           ID   ALL DAMS WERE ANALYZED WITH NO STORAGE BELOW PRINCIPLE SPILLWAY ELEVATIONS
  5           ID
  6           ID   A CONSERVATIVE ESTIMATE WAS USED FOR THE LOCATION OF THE CENTROID FOR
  7           ID   PRECIPITATION VALUES
  8           ID
  9           ID   ALL CHANNEL ROUTING INFORMATION WAS OBTAINED FROM MCFCD SPOOK HILL   SIGNAL
 10           ID   BUTTE        AND BULLDOG FLOODWAY PLANS
 11           ID
 12           ID
 13           ID   ADDITION OF LEVEE INTO SUB-BASINS 300 & 320 OF PASS MOUNTAIN DIVERSION
 14           ID
 15           ID
 16           ID   ANALYSIS PERFORMED BY WOOD/PATEL; 04/24/00 BY: MW;  FILE S24CE2.DAT
 17           ID
 18           ID   DDM MCUHP1 SPOOK HILL AMDP - EXISTING CONDITIONS MODEL - 100YR, 24HR STORM
              *DIAGRAM
 19           IT       2                    1500
 20           IO       3
 21           IN      15
 22           JD    3.81    0.01
 23           PC    .000    .002    .005    .008    .011    .014    .017    .020    .023    .026
 24           PC    .029    .032    .035    .038    .041    .044    .048    .052    .056    .060
 25           PC    .064    .068    .072    .076    .080    .085    .090    .095    .100    .105
 26           PC    .110    .115    .120    .126    .133    .140    .147    .155    .163    .172
 27           PC    .181    .191    .203    .218    .236    .257    .283    .387    .663    .707
 28           PC    .735    .758    .776    .791    .804    .815    .825    .834    .842    .849
 29           PC    .856    .863    .869    .875    .881    .887    .893    .898    .903    .908
 30           PC    .913    .918    .922    .926    .930    .934    .938    .942    .946    .950
 31           PC    .953    .956    .959    .962    .965    .968    .971    .974    .977    .980
 32           PC    .983    .986    .989    .992    .995    .998   1.000
 33           JD    3.58   10.00
 34           JD    3.43   30.00
 35           JD    3.28   60.00
 36           JD    3.22   90.00
 37           JD    3.18  120.00
 38           JD    3.14  150.00
 39           JD    3.05  300.00
 40           JD    2.97  500.00
              * DDM   ***** Updated *****

 41           KK      10
 42           KM   SUB-BASIN 10
 43           KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 44           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
 45           KM     L = 2.00  Kb = .044  Adj. Slope =  165.0
 46           BA    .702
 47           LG    .350    .320   7.600    .090  15.000
 48           UC    .421    .302
 49           UA       0       3       5       8      12      20      43      75      90      96
 50           UA     100
              * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                                    PAGE  2

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

 51           KK     R10
 52           KM   ROUTING OF FLOW FROM SUB-BASIN 10 TO SUB-BASIN 20
 53           RS      10    FLOW      -1
 54           RC    .045    .045    .045   13200    .017
 55           RX       0       1       2      14      34      46      47      48
 56           RY       4       4       4       0       0       4       4       4
              * DDM   ***** Updated *****

 57           KK      20
 58           KM   SUB-BASIN 20
 59           KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 60           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .993
 61           KM     L = 2.50  Kb = .041  Adj. Slope =   88.0
 62           BA   1.120
 63           LG    .350    .390   5.800    .190   1.000
 64           UC    .658    .454
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 65          UA       0       3       5       8      12      20      43      75      90      96
 66          UA     100
             * DDM   ***** Preserved *****

 67          KK     C20
 68          KM   HYDROGRAPH COMBINATION OF SUB-BASINS 10 AND 20
 69          HC       2
             * DDM   ***** Updated *****

 70          KK      40
 71          KM   SUB-BASIN 40
 72          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 73          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .987
 74          KM     L = 3.08  Kb = .036  Adj. Slope =  189.0
 75          BA   2.233
 76          LG    .340    .340   4.900    .280   5.000
 77          UC    .496    .264
 78          UA       0       3       5       8      12      20      43      75      90      96
 79          UA     100
             * DDM   ***** Updated *****

 80          KK      60
 81          KM   SUB-BASIN 60
 82          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 83          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .990
 84          KM     L = 4.19  Kb = .038  Adj. Slope =  209.6
 85          BA   1.746
 86          LG    .330    .350   5.800    .190   9.000
 87          UC    .596    .477
 88          UA       0       3       5       8      12      20      43      75      90      96
 89          UA     100
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE  3

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

 90          KK     60C
 91          KM   HYDROGRAPH COMBINATION FOR APACHE JUNCTION FRS
             *      1       2
 92          HC       3
             * DDM   ***** Preserved *****

 93          KK    SR60
 94          KM   APACHE JUNCTION FRS AS-BUILT PLANS 12/19/88
 95          KM   OUTLET PIPE=30"RCP; L=136.6'; INLET INV.=1783.5; OUTLET INV.=1783
 96          KM   EMERGENCY SPILLWAY ELEV.=1799.77'; PRINCIPLE SPILLWAY ELEV.=1793.5'
 97          KM   STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 100 ACRE-FEET
 98          RS       1    STOR       0
 99          SV       0       1     100     200     300     400
100          SQ       0      71      81      87    91.5      94
101          SE    83.5    93.5      96    97.7      99   99.77
             * DDM   ***** Preserved *****

102          KK     R60
103          KM        ROUTE FLOW THROUGH BULLDOG FLOODWAY FROM APACHE JUNCTION FRS
104          RS       2    FLOW      -1
105          RC    .016    .016    .016    2850    .012
106          RX       0       1       2     2.1     5.6     5.7       6       7
107          RY     3.5     3.5     3.5       0       0     3.5     3.5     3.5
             * DDM   ***** Preserved *****

108          KK    RR60
109          KM   ROUTE FLOW FROM BULLDOG FLOODWAY TO SUB-BASIN 80
110          RS       3    FLOW      -1
111          RC    .016    .016    .016    3500    .005
112          RX       0       1       2     2.1     7.1     7.2       8       9
113          RY     3.5     3.5     3.5       0       0     3.5     3.5     3.5
             * DDM   ***** Updated *****

114          KK      80
115          KM   SUB-BASIN 80
116          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
117          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
118          KM     L = 2.69  Kb = .039  Adj. Slope =  229.8
119          BA   1.475
120          LG    .330    .330   5.600    .210   4.000
121          UC    .433    .259
122          UA       0       3       5       8      12      20      43      75      90      96
123          UA     100
             * DDM   ***** Preserved *****

124          KK     80C
125          KM   HYDROGRAPH COMBINATION FOR FLOW FROM APACHE JUNCTION FRS & SUB-BASIN 80
126          HC       2   1.475
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE  4

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

127          KK     R80
128          KM   ROUTE FLOW FROM SUB-BASIN 80 TO SUB-BASIN 100
129          RS       1    FLOW      -1
130          RC    .025    .016    .025    1200    .003
131          RX       0       2       6     6.1    41.1    41.2    56.2    58.2
132          RY     5.5     4.5     4.5       0       0     4.5     4.5     5.5
             * DDM   ***** Updated *****

133          KK     100
134          KM   SUB-BASIN 100
135          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
136          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
137          KM     L = 1.94  Kb = .046  Adj. Slope =  108.0
138          BA    .484
139          LG    .320    .290   5.100    .260   3.000
140          UC    .533    .473
141          UA       0       5      16      30      65      77      84      90      94      97
142          UA     100
             * DDM   ***** Preserved *****

143          KK    100C
144          KM   HYDROGRAPH COMBINATION FOR FLOW FROM SUB-BASIN 80 & 100
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145          HC       2
             * DDM   ***** Preserved *****

146          KK    R100
147          KM   ROUTE FLOW FROM SUB-BASIN 100 TO SUB-BASIN 120
148          RS       1    FLOW      -1
149          RC    .016    .016    .016     940    .005
150          RX       0       1       2     2.1    52.1    52.2      53      54
151          RY     4.5     4.5     4.5       0       0     4.5     4.5     4.5
             * DDM   ***** Updated *****

152          KK     120
153          KM   SUB-BASIN 120
154          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
155          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .987
156          KM     L = 3.07  Kb = .037  Adj. Slope =  239.0
157          BA   2.202
158          LG    .330    .280   6.800    .130  11.000
159          UC    .429    .226
160          UA       0       3       5       8      12      20      43      75      90      96
161          UA     100
             * DDM   ***** Preserved *****

162          KK    120C
163          KM   HYDROGRAPH COMBINATION FOR FLOW FROM SUB-BASIN 100 & 120
164          HC       2
             * DDM   ***** Preserved *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

165          KK    R120
166          KM   ROUTE FLOW FROM SUB-BASIN 120 TO SIGNAL BUTTE FRS
167          RS       1    FLOW      -1
168          RC    .025    .016    .025    2100    .005
169          RX       0       6      10    10.1    60.1    60.2    74.2    80.2
170          RY       8       5       5       0       0       5       5       8
             * DDM   ***** Updated *****

171          KK     140
172          KM   SUB-BASIN 140
173          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
174          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
175          KM     L = 1.61  Kb = .044  Adj. Slope =  149.0
176          BA    .598
177          LG    .310    .280   4.200    .440   5.000
178          UC    .421    .278
179          UA       0       5      16      30      65      77      84      90      94      97
180          UA     100
             * DDM   ***** Updated *****

181          KK     150
182          KM   SUB-BASIN 150
183          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
184          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
185          KM     L = 1.50  Kb = .047  Adj. Slope =  315.0
186          BA    .408
187          LG    .350    .360   5.100    .260   7.000
188          UC   1.579   1.417
189          UA       0       3       5       8      12      20      43      75      90      96
190          UA     100
             * DDM   ***** Preserved *****

191          KK    R150
192          KM   ROUTING OF FLOW FROM SUB-BASIN 150 THROUGH 160
193          RS      14    FLOW      -1
194          RC    .045    .045    .045   10895    .019
195          RX       0       1       2      14      34      46      47      48
196          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

197          KK     160
198          KM   SUB-BASIN 160
199          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
200          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
201          KM     L = 2.10  Kb = .047  Adj. Slope =  129.0
202          BA    .369
203          LG    .340    .330   4.150    .440   1.000
204          UC    .587    .655
205          UA       0       3       5       8      12      20      43      75      90      96
206          UA     100
             * DDM   ***** Updated *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

207          KK     180
208          KM   SUB-BASIN 180
209          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
210          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
211          KM     L = 2.42  Kb = .041  Adj. Slope =  140.0
212          BA   1.000
213          LG    .350    .350   4.150    .430    .000
214          UC    .571    .403
215          UA       0       3       5       8      12      20      43      75      90      96
216          UA     100
             * DDM   ***** Preserved *****

217          KK    180C
218          KM   HYDROGRAPH COMBINATION FOR SIGNAL BUTTE FRS
219          HC       5

220          KK     350
221          KM   SUB-BASIN 350
222          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
223          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
224          KM     L = 2.22  Kb = .042  Adj. Slope =  311.0
225          BA    .961
226          LG    .350    .350   4.600    .330   5.000
227          UC    .367    .235
228          UA       0       3       5       8      12      20      43      75      90      96
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229          UA     100

230          KK    D350
231          KM   DIVERT FLOW FROM SUB-BASIN 350. FOR MODELING PURPOSES THE SPLIT FLOW WILL
232          KM   BE ROUTED BETWEEN SUB-BASINS 355 & 310. THE MAIN FLOW WILL ROUTED TO 310
233          DT   SF350
234          DI       0   10000
235          DQ       0    6000
             * DDM   ***** Preserved *****

236          KK    350R
237          KM   ROUTING OF MAIN FLOW FROM DIVERSION OF SUB-BASIN 350 TO SUB-BASIN 310
238          RS       7    FLOW      -1
239          RC    .045    .045    .045    5379    .024
240          RX       0       1       2      32     102     132     133     134
241          RY       2       2       2       0       0       2       2       2
             * DDM   ***** Updated *****

242          KK     310
243          KM   SUB-BASIN 310
244          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
245          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
246          KM     L = 2.70  Kb = .045  Adj. Slope =  283.5
247          BA    .555
248          LG    .350    .350   3.910    .480    .000
249          UC    .483    .511
250          UA       0       3       5       8      12      20      43      75      90      96
251          UA     100
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE  7

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

252          KK    C310
253          KM   HYDROGRAPH COMBINATION OF SUB-BASINS 350 & 310
254          HC       2    .943
             * DDM   ***** Preserved *****

255          KK    R310
256          KM   ROUTING OF FLOW FROM SUB-BASIN 310 TO 240
257          RS       6    FLOW      -1
258          RC    .045    .045    .045    4711    .015
259          RX       0       1       2      32     102     132     133     134
260          RY     2.5     2.5     2.5       0       0     2.5     2.5     2.5
             * DDM   ***** Updated *****

261          KK     295
262          KM   SUB-BASIN 295
263          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
264          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
265          KM     L = 1.60  Kb = .047  Adj. Slope =  131.0
266          BA    .380
267          LG    .350    .350   4.900    .280    .000
268          UC    .450    .386
269          UA       0       3       5       8      12      20      43      75      90      96
270          UA     100

271          KK    295C
272          KM   HYDROGRAPH COMBINATION OF SUB-BASINS 310 & 295
273          HC       2

274          KK    R295
275          KM   ROUTE FLOW FROM SUB-BASIN 295 TO SUB-BASIN 240
276          KM   ADDITIONAL LEVEE ADDED TO PASS MOUNTAIN DIVERSION
277          RS       2    FLOW      -1
278          RC    .035    .025    .035    1600    .005
279          RX       0      20      40      65      77     147     387     388
280          RY       8       8       2       0       0       2       8       8
             * DDM   ***** Updated *****

281          KK     240
282          KM   SUB-BASIN 240
283          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
284          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
285          KM     L = 3.50  Kb = .041  Adj. Slope =  298.6
286          BA   1.036
287          LG    .350    .350   4.600    .330   2.000
288          UC    .500    .458
289          UA       0       3       5       8      12      20      43      75      90      96
290          UA     100

291          KK    240C
292          KM   HYDROGRAPH COMBINATION OF SUB-BASINS 295 & 240
293          HC       2
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE  8

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

294          KK    R240
295          KM   ROUTE FLOW FROM SUB-BASIN 240 TO SUB-BASIN 220
296          KM   PASS MOUNTAIN DIVERSION
297          RS       2    FLOW      -1
298          RC    .035    .025    .035    2100    .005
299          RX       0      15      30      60      88     558     560     562
300          RY      10      10      10       0       0      10      10      10
             * DDM   ***** Updated *****

301          KK     210
302          KM   SUB-BASIN 210
303          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
304          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
305          KM     L = 1.84  Kb = .045  Adj. Slope =  315.0
306          BA    .583
307          LG    .350    .350   7.000    .120   7.000
308          UC    .321    .232
309          UA       0       3       5       8      12      20      43      75      90      96
310          UA     100
             * DDM   ***** Preserved *****

311          KK    R210
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312          KM   ROUTING OF FLOW FROM SUB-BASIN 210 TO SUB-BASIN 220
313          RS       3    FLOW      -1
314          RC    .045    .045    .045    5484    .024
315          RX       0       1       2      14      29      41      42      43
316          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

317          KK     220
318          KM   SUB-BASIN 220
319          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
320          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
321          KM     L = 1.92  Kb = .044  Adj. Slope =  315.0
322          BA    .688
323          LG    .350    .330   7.300    .110   1.000
324          UC    .321    .218
325          UA       0       3       5       8      12      20      43      75      90      96
326          UA     100
             * DDM   ***** Preserved *****

327          KK    220C
328          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 240 & 220
329          HC       3
             * DDM   ***** Preserved *****

330          KK    R220
331          KM   ROUTE FLOW FROM SUB-BASIN 220 TO SUB-BASIN 200
332          KM   PASS MOUNTAIN DIVERSION
333          RS       1    FLOW      -1
334          RC    .035    .025    .035    1900    .005
335          RX       0       5      10      40      70      85      86      87
336          RY      10      10      10       0       0      10      10      10
             * DDM   ***** Updated *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

337          KK     190
338          KM   SUB-BASIN 190
339          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
340          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
341          KM     L = 1.91  Kb = .042  Adj. Slope =  315.0
342          BA    .918
343          LG    .350    .390   5.800    .190   8.000
344          UC    .321    .185
345          UA       0       3       5       8      12      20      43      75      90      96
346          UA     100
             * DDM   ***** Preserved *****

347          KK    R190
348          KM   ROUTING OF FLOW FROM SUB-BASIN 190 TO SUB-BASIN 200
349          RS       4    FLOW      -1
350          RC    .045    .045    .045    6948    .023
351          RX       0       1       2      17      37      52      53      54
352          RY       5       5       5       0       0       5       5       5
             * DDM   ***** Updated *****

353          KK     200
354          KM   SUB-BASIN 200
355          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
356          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
357          KM     L = 1.92  Kb = .042  Adj. Slope =  315.0
358          BA    .918
359          LG    .350    .390   5.800    .190   7.000
360          UC    .321    .185
361          UA       0       3       5       8      12      20      43      75      90      96
362          UA     100
             * DDM   ***** Preserved *****

363          KK    200C
364          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 220 & 200
365          HC       3
             * DDM   ***** Preserved *****

366          KK    R200
367          KM   ROUTE FLOW FROM SUB-BASIN 200 TO SIGNAL BUTTE FRS
368          RS       1    FLOW      -1
369          RC    .035    .025    .035    1300    .005
370          RX       0       1       2      17     117     132     133     134
371          RY       5       5       5       0       0       5       5       5
             * DDM   ***** Preserved *****

372          KK    C180
373          KM   HYDROGRAPH COMBINATION FOR SIGNAL BUTTE FRS
             *      1       2
374          HC       2
             * DDM   ***** Preserved *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

375          KK   SR180
376          KM   SIGNAL BUTTE FRS DATED 1/28/85
377          KM   OUTLET PIPE=36"RCP; L= 147';  INLET INV.=1690; OUTLET INV.=1687
378          KM   EMERGENCY SPILLWAY ELEV.=1712.4; PRINCIPLE SPILLWAY ELEV.=1701
379          KM   STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 250 ACRE-FEET
380          RS       1    STOR       0
381          SV       0       1     250     500     750    1060
382          SQ       0   106.5   125.5   137.5     146     160
383          SE      90     101   104.5     107     109   112.4
             * DDM   ***** Preserved *****

384          KK    R180
385          KM   ROUTE FLOW FROM SIGNAL BUTTE FRS TO SUB-BASIN 260
386          RS       2    FLOW      -1
387          RC    .035    .025    .035    1500    .003
388          RX       0       1       2    22.6    38.6    59.2      60      61
389          RY     9.3     9.3     9.3       0       0     9.3     9.3     9.3
             * DDM   ***** Updated *****

390          KK     260
391          KM   SUB-BASIN 260
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392          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
393          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
394          KM     L =  .81  Kb = .049  Adj. Slope =   68.0
395          BA    .267
396          LG    .300    .170   6.800    .160  15.000
397          UC    .363    .215
398          UA       0       5      16      30      65      77      84      90      94      97
399          UA     100
             * DDM   ***** Preserved *****

400          KK    260C
401          KM   HYDROGRAPH COMBINATION FOR OUTFLOW OF SIGNAL BUTTE FRS & SUB-BASIN 260
402          HC       2    .267
             * DDM   ***** Preserved *****

403          KK    R260
404          KM   ROUTE FLOW FROM SUB-BASIN 260 TO SUB-BASIN 280
405          RS       2    FLOW      -1
406          RC    .035    .025    .035    2300    .003
407          RX       0       1       2    23.4    43.4    64.8      65      66
408          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
             * DDM   ***** Updated *****

409          KK     280
410          KM   SUB-BASIN 280
411          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
412          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
413          KM     L =  .77  Kb = .049  Adj. Slope =   84.0
414          BA    .304
415          LG    .300    .250   5.300    .290  15.000
416          UC    .333    .175
417          UA       0       5      16      30      65      77      84      90      94      97
418          UA     100
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE 11

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

419          KK    280C
420          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 260 & SUB-BASIN 280
421          HC       2
             * DDM   ***** Preserved *****

422          KK    R280
423          KM   ROUTE FLOW FROM SUB-BASIN 280 TO SUB-BASIN 300
424          RS       2    FLOW      -1
425          RC    .035    .025    .035    2500    .003
426          RX       0       1       2    23.4    43.4    64.8      65      66
427          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
             * DDM   ***** Updated *****

428          KK     300
429          KM   SUB-BASIN 300
430          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
431          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
432          KM     L = 1.20  Kb = .044  Adj. Slope =   92.0
433          BA    .677
434          LG    .330    .310   4.350    .420  10.000
435          UC    .421    .205
436          UA       0       5      16      30      65      77      84      90      94      97
437          UA     100
             * DDM   ***** Preserved *****

438          KK    300C
439          KM   HYDROGRAPH COMBINATION OF SUB-BASIN 280 & 300
440          HC       2
             * DDM   ***** Preserved *****

441          KK    R300
442          KM   ROUTE FLOW FROM SUB-BASIN 300 TO START OF FLOODWAY CONCRETE CHANNEL
443          RS       2    FLOW      -1
444          RC    .035    .025    .035    2200    .003
445          RX       0       1       2    23.4    55.4    76.8      77      78
446          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
             * DDM   ***** Preserved *****

447          KK   RR300
448          KM   CONTINUE TO ROUTE FLOW WITHIN CONCRETE CHANNEL TO SPOOK HILL FRS
449          RS       1    FLOW      -1
450          RC    .016    .016    .016    6050   .0146
451          RX       0       1       2     2.1    16.1    16.2      17      18
452          RY     7.5     7.5     7.5       0       0     7.5     7.5     7.5
             *      1       2
             * DDM   ***** Updated *****
             * DDM   ***** Updated *****

453          KK     320
454          KM   SUB-BASIN 320
455          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
456          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .995
457          KM     L = 1.60  Kb = .042  Adj. Slope =  106.0
458          BA    .870
1                                    HEC-1 INPUT                                          PAGE 12

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

459          LG    .310    .290   4.500    .380  15.000
460          UC    .450    .240
461          UA       0       5      16      30      65      77      84      90      94      97
462          UA     100
             * DDM   ***** Preserved *****

463          KK    D320
464          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
465          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THREE SUBDIVISIONS
466          KM   SIERRA HEIGHTS        FALCON RIDGE    & MARBLE CREEK
467          KM        MAXIMUM VOLUME DIVERSION = 12.27acre-feet
             *      1
468          DT   BS320   12.27
469          DI       0   10000
470          DQ       0   10000
             * DDM   ***** Preserved *****
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471          KK   RT320
472          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
473          DR   BS320
             * DDM   ***** Preserved *****

474          KK   SR320
475          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
476          KM   12.27 ACRE-FEETx43560/36x3600=4.1cfs
             *     1
477          RS       1    STOR       0
478          SV       0     .01    12.3
479          SQ       0     4.2     4.2
             * DDM   ***** Preserved *****

480          KK    C320
481          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
482          HC       3
             * DDM   ***** Updated *****

483          KK     340
484          KM   SUB-BASIN 340
485          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
486          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
487          KM     L = 2.40  Kb = .042  Adj. Slope =  160.0
488          BA   1.449
489          LG    .280    .280   4.150    .520  21.000
490          UC    .512    .287
491          UA       0       5      16      30      65      77      84      90      94      97
492          UA     100
             * DDM   ***** Preserved *****

493          KK    D340
494          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
495          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THREE SUBDIVISIONS
496          KM   GRANDVIEW ESTATES    BOULDER MOUNTAIN & 33% OF MESA HIGHLANDS
497          KM        MAXIMUM VOLUME DIVERSION = 56.0 acre-feet
             *     1
498          DT   BS340      56
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

499          DI       0   10000
500          DQ       0   10000
             * DDM   ***** Preserved *****

501          KK   RT340
502          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
503          DR   BS340
             * DDM   ***** Preserved *****

504          KK   SR340
505          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
506          KM    56.0 ACRE-FEETx43560/36x3600=18.8cfs
             *     1
507          RS       1    STOR       0
508          SV       0     .01      56
509          SQ       0    18.9    18.9
             * DDM   ***** Preserved *****

510          KK    C340
511          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
512          HC       3

513          KK   RT350
514          KM   RETRIEVE SPLIT FLOW FROM DIVERSION OF SUB-BASIN 350
515          DR   SF350
             * DDM   ***** Preserved *****

516          KK   RR350
517          KM   ROUTING OF FLOW FROM SPLIT OF SUB-BASIN 350 TO 355
518          RS       5    FLOW      -1
519          RC    .045    .045    .045    6150    .023
520          RX       0       1       2      14      29      41      42      43
521          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

522          KK     355
523          KM   SUB-BASIN 355
524          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
525          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
526          KM     L = 3.00  Kb = .044  Adj. Slope =  284.0
527          BA    .668
528          LG    .340    .340   4.450    .370   4.000
529          UC    .488    .505
530          UA       0       3       5       8      12      20      43      75      90      96
531          UA     100

532          KK    C355
533          KM   HYDROGRAPH COMBINATION OF SUB-BASIN 355 AND THE SPLIT FLOW FROM SUB-BASIN 350
534          HC       2    1.24
             * DDM   ***** Preserved *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

535          KK    R355
536          KM   ROUTING OF FLOW FROM SUB-BASIN 355 TO SUB-BASIN 360
537          RS       8    FLOW      -1
538          RC    .045    .045    .045   11535    .023
539          RX       0       1       2      14      34      46      47      48
540          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

541          KK     370
542          KM   SUB-BASIN 370
543          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
544          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
545          KM     L = 2.90  Kb = .044  Adj. Slope =  294.6
546          BA    .667
547          LG    .340    .320   4.650    .330   9.000
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548          UC    .454    .455
549          UA       0       3       5       8      12      20      43      75      90      96
550          UA     100
             * DDM   ***** Preserved *****

551          KK    R370
552          KM   ROUTING OF FLOW FROM SUB-BASIN 370 TO 360
553          RS      10    FLOW      -1
554          RC    .045    .045    .045   11782    .021
555          RX       0       1       2      14      29      41      42      43
556          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

557          KK     360
558          KM   SUB-BASIN 360
559          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
560          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
561          KM     L = 2.10  Kb = .048  Adj. Slope =  124.0
562          BA    .670
563          LG    .260    .270   4.100    .560  20.000
564          UC    .587    .466
565          UA       0       5      16      30      65      77      84      90      94      97
566          UA     100
             * DDM   ***** Preserved *****

567          KK    D360
568          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
569          KM   DETENTION/RETENTION BASINS LOCATED WITHIN 33% OF MESA HIGHLANDS
570          KM        MAXIMUM VOLUME DIVERSION = 28.6 acre-feet
             *      1
571          DT   BS360    28.6
572          DI       0   10000
573          DQ       0   10000
             * DDM   ***** Preserved *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

574          KK   RT360
575          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
576          DR   BS360
             * DDM   ***** Preserved *****

577          KK   SR360
578          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
579          KM    28.6 ACRE-FEETx43560/36x3600=9.6cfs
580          RS       1    STOR       0
581          SV       0     .01    28.6
582          SQ       0     9.6     9.6
             * DDM   ***** Preserved *****

583          KK    360C
584          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
585          HC       5
             * DDM   ***** Updated *****

586          KK     395
587          KM   SUB-BASIN 395
588          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
589          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
590          KM     L = 1.60  Kb = .051  Adj. Slope =  215.8
591          BA    .198
592          LG    .330    .320   4.900    .300  10.000
593          UC    .383    .468
594          UA       0       3       5       8      12      20      43      75      90      96
595          UA     100
             * DDM   ***** Preserved *****

596          KK    R395
597          KM   ROUTING OF FLOW FROM SUB-BASIN 395 TO SUB-BASIN 380
598          RS      13    FLOW      -1
599          RC    .045    .045    .045   11300    .021
600          RX       0       1       2      11      26      35      36      37
601          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

602          KK     380
603          KM   SUB-BASIN 380
604          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
605          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
606          KM     L = 2.20  Kb = .048  Adj. Slope =  114.0
607          BA    .972
608          LG    .300    .310   4.150    .500   7.000
609          UC    .658    .444
610          UA       0       5      16      30      65      77      84      90      94      97
611          UA     100
             * DDM   ***** Preserved *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

612          KK    D380
613          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
614          KM   DETENTION/RETENTION BASINS LOCATED WITHIN 33% OF MESA HIGHLANDS
615          KM        MAXIMUM VOLUME DIVERSION = 28.6 acre-feet
             *      1
616          DT   BS380    28.6
617          DI       0   10000
618          DQ       0   10000
             * DDM   ***** Preserved *****

619          KK   RT380
620          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
621          DR   BS380
             * DDM   ***** Preserved *****

622          KK   SR380
623          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
624          KM    28.6 ACRE-FEETx43560/36x3600=9.6cfs
625          RS       1    STOR       0
626          SV       0     .01    28.6
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627          SQ       0     9.6     9.6
             * DDM   ***** Preserved *****

628          KK    380C
629          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
630          HC       4
             * DDM   ***** Updated *****

631          KK     390
632          KM   SUB-BASIN 390
633          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
634          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
635          KM     L =  .70  Kb = .050  Adj. Slope =  299.4
636          BA    .244
637          LG    .300    .250   4.700    .380  18.000
638          UC    .204    .107
639          UA       0       5      16      30      65      77      84      90      94      97
640          UA     100
             * DDM   ***** Preserved *****

641          KK    D390
642          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
643          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THUNDER MOUNTAIN ESTATES
644          KM        MAXIMUM VOLUME DIVERSION  = 3.5 acre-feet
             *      1
645          DT   BS390     3.5
646          DI       0   10000
647          DQ       0   10000
             * DDM   ***** Preserved *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

648          KK   RT390
649          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
650          DR   BS390
             * DDM   ***** Preserved *****

651          KK   SR390
652          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
653          KM     3.5 ACRE-FEETx43560/36x3600=1.2cfs
654          RS       1    STOR       0
655          SV       0     .01     3.5
656          SQ       0     1.2     1.2
             * DDM   ***** Preserved *****

657          KK    390C
658          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
659          HC       2
             * DDM   ***** Preserved *****

660          KK   RR390
661          KM   FROM SUB-BASIN 390 TO SUB-BASIN 400
662          RS       8    FLOW      -1
663          RC    .045    .045    .045    9029    .020
664          RX       0       1       2      14      19      31      32      33
665          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

666          KK     400
667          KM   SUB-BASIN 400
668          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
669          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
670          KM     L = 1.64  Kb = .046  Adj. Slope =  110.0
671          BA    .616
672          LG    .320    .320   3.130    .930   6.000
673          UC    .592    .405
674          UA       0       5      16      30      65      77      84      90      94      97
675          UA     100
             * DDM   ***** Preserved *****

676          KK    D400
677          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
678          KM   DETENTION/RETENTION BASIN LOCATED WITHIN SAGUARO VISTA SUBDIVISION
679          KM        MAXIMUM VOLUME DIVERSION = 5.6 ACRE-FEET
             *      1
680          DT   BS400     5.6
681          DI       0   10000
682          DQ       0   10000
             * DDM   ***** Preserved *****

683          KK   RT400
684          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
685          DR   BS400
             * DDM   ***** Preserved *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

686          KK   SR400
687          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
688          KM     5.6 ACRE-FEETx43560/36x3600 = 2 cfs
689          RS       1    STOR       0
690          SV       0     .01     5.6
691          SQ       0       2       2
             * DDM   ***** Preserved *****

692          KK    C400
693          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
694          HC       2
             * DDM   ***** Preserved *****

695          KK    400C
696          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
697          HC       3
             * DDM   ***** Updated *****

698          KK     385
699          KM   SUB-BASIN 385
700          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
701          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
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702          KM     L = 2.30  Kb = .044  Adj. Slope =  303.0
703          BA    .647
704          LG    .350    .370   5.600    .210  13.000
705          UC    .375    .311
706          UA       0       3       5       8      12      20      43      75      90      96
707          UA     100
             * DDM   ***** Preserved *****

708          KK    D385
709          KM   DIVERT FLOW INTO SUB-BASINS 415 & 420
710          DT   SF385
711          DI       0   10000
712          DQ       0    4000
             * DDM   ***** Preserved *****

713          KK    385R
714          KM   ROUTING OF FLOW DIVERSION FROM SUB-BASIN 385 INTO SUB-BASIN 420
715          RS       9    FLOW      -1
716          RC    .045    .045    .045   10233    .022
717          RX       0       1       2      14      19      31      32      33
718          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

719          KK     420
720          KM   SUB-BASIN 420
721          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
722          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .995
723          KM     L = 1.91  Kb = .042  Adj. Slope =  120.0
724          BA    .849
725          LG    .310    .270   3.880    .580  12.000
726          UC    .512    .325
727          UA       0       5      16      30      65      77      84      90      94      97
1                                        HEC-1 INPUT                                          PAGE 19

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

728          UA     100
             * DDM   ***** Preserved *****

729          KK    D420
730          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
731          KM   DETENTION/RETENTION BASINS LOCATED WITHIN GRAY FOX SUBDIVISION
732          KM        MAXIMUM VOLUME DIVERSION = 8.65 acre-feet
             *      1
733          DT   BS420    8.65
734          DI       0   10000
735          DQ       0   10000
             * DDM   ***** Preserved *****

736          KK   RT420
737          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
738          DR   BS420
             * DDM   ***** Preserved *****

739          KK   SR420
740          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
741          KM   38.55 ACRE-FEETx43560/36x3600=13cfs
742          RS       1    STOR       0
743          SV       0     .01   38.55
744          SQ       0      13      13
             * DDM   ***** Preserved *****

745          KK    420C
746          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
747          HC       4   10.77
             * DDM   ***** Updated *****

748          KK     440
749          KM   SUB-BASIN 440
750          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
751          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
752          KM     L =  .40  Kb = .039  Adj. Slope =  315.0
753          BA    .080
754          LG    .190    .380   6.400    .140  13.000
755          UC    .129    .077
756          UA       0       3       5       8      12      20      43      75      90      96
757          UA     100
             * DDM   ***** Preserved *****

758          KK     R70
759          KM   ROUTE FLOW FROM SUB-BASIN 440 TO C108
760          RS       1    FLOW      -1
761          RC     .05    .035     .05    2250     .08
762          RX    1000    1025    1050    1070    1075    1095    1120    1145
763          RY      30    22.9    15.7      10      10    15.7    22.9      30
             * DDM   ***** Updated *****
1                                        HEC-1 INPUT                                          PAGE 20

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

764          KK     441
765          KM   SUB-BASIN 441
766          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
767          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
768          KM     L =  .28  Kb = .069  Adj. Slope =  315.0
769          BA    .010
770          LG    .300    .250   5.600    .220   5.000
771          UC    .150    .225
772          UA       0       5      16      30      65      77      84      90      94      97
773          UA     100
             * DDM   ***** Preserved *****

774          KK    C108
775          KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 440 & 441
776          HC       2
             * DDM   ***** Preserved *****

777          KK    DIV4
778          KM        SPLIT FLOW WITH TWO 42 INCH PIPES TO WEST AND SOUTH
             *      1
779          DT   SPLIT
780          DI       0      14      40      82     120     154     180
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781          DQ       0       7      20      41      60      77      90
             * DDM   ***** Preserved *****

782          KK    R108
783          KM        ROUTE FLOW FROM SUB-BASIN C108 TO C67
784          RS       2    FLOW      -1
785          RC     .05    .035     .05    3200      .1
786          RX    1000    1025    1050    1070    1075    1095    1120    1145
787          RY      30    22.9    15.7      10      10    15.7    22.9      30
             * DDM   ***** Updated *****

788          KK     442
789          KM   SUB-BASIN 442
790          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
791          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
792          KM     L =  .83  Kb = .055  Adj. Slope =  274.2
793          BA    .100
794          LG    .300    .270   3.290    .770   5.000
795          UC    .258    .264
796          UA       0       5      16      30      65      77      84      90      94      97
797          UA     100
             * DDM   ***** Preserved *****

798          KK     C67
799          KM   COMBINE FLOW FROM SUB-BASIN 442 & DIV4
800          HC       2
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE 21

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


801          KK    DIV6
802          KM        OFFLINE BASIN WITH 25 FOOT WEIR SET AT 2.5 FEET ABOVE BOTTOM OF CHANNEL
803          KM        FLOW CONTINUES BEYOND BASIN THROUGH 2-30" PIPES
             *      1
804          DT  BASIN4
805          DI       0      10      32      44    79.9   132.5     198   272.9   356.8
806          DQ       0       0       0       0    23.9    67.5     124   190.9   266.8
             * DDM   ***** Preserved *****

807          KK  RTDIV6
808          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
809          DR  BASIN4
             * DDM   ***** Preserved *****

810          KK  RFDIV6
811          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
812          KM     3.3 ACRE-FEETx43560/36x3600=1.1cfs
             *      1
813          RS       1    STOR       0
814          SV       0     .01     3.3
815          SQ       0     1.1     1.1
             * DDM   ***** Preserved *****

816          KK   CDIV6
817          KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
818          HC       2
             * DDM   ***** Updated *****

819          KK     443
820          KM   SUB-BASIN 443
821          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
822          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
823          KM     L =  .71  Kb = .050  Adj. Slope =  315.0
824          BA    .080
825          LG    .250    .190   8.000    .080  10.000
826          UC    .196    .194
827          UA       0       5      16      30      65      77      84      90      94      97
828          UA     100
             * DDM   ***** Preserved *****

829          KK   DIV66
830          KM        DIVERT FLOW INTO 3 NATURAL WASHES WITH ONE 24" PIPE IN EACH WASH.
831          KM        EACH PIPE CAPACITY BASED ON 4 FEET OF HEAD
832          DT   WSH66
833          DI       0      78     100     200
834          DQ       0      78      78      78
             * DDM   ***** Preserved *****

835          KK    R113
836          KM        ROUTE FLOW FROM C113 TO C114
837          RS       1    FLOW      -1
838          RC    .019    .019    .019    1300    .029
839          RX    1000    1004    1008    1012    1018    1022    1026    1030
840          RY      17   15.33   12.67      10      10   12.67   15.33      17
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE 22

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


841          KK    C114
842          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 67 AND C113
843          HC       2
             * DDM   ***** Updated *****

844          KK     444
845          KM   SUB-BASIN 444
846          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
847          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
848          KM     L =  .33  Kb = .034  Adj. Slope =  315.0
849          BA    .040
850          LG    .130    .350   4.450    .320   1.000
851          UC    .112    .084
852          UA       0       3       5       8      12      20      43      75      90      96
853          UA     100
             * DDM   ***** Preserved *****

854          KK     R58
855          KM   ROUTE FLOW FROM SUB-BASIN 444 TO C107
856          RS       1    FLOW      -1
857          RC     .05    .035     .05    2370   .0516
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858          RX    1000    1010    1020    1050    1055    1085    1095    1105
859          RY      19      18      17      10      10      17      18      19
             * DDM   ***** Updated *****

860          KK     445
861          KM   SUB-BASIN 445
862          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
863          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
864          KM     L =  .82  Kb = .036  Adj. Slope =  315.0
865          BA    .190
866          LG    .170    .320   3.470    .590   3.000
867          UC    .192    .130
868          UA       0       5      16      30      65      77      84      90      94      97
869          UA     100
             * DDM   ***** Preserved *****

870          KK    C107
871          KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 444 & 445
872          HC       2
             * DDM   ***** Preserved *****

873          KK    R107
874          KM        ROUTE FLOW FROM C107 TO C109
875          RS       1    FLOW      -1
876          RC     .05    .035     .05     700   .0516
877          RX    1000    1010    1020    1050    1055    1085    1095    1105
878          RY      19      18      17      10      10      17      18      19
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 23

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

879          KK    RTB2
880          KM        RETRIEVE DIVERTED FLOW FROM BASIN 1
             *      1
881          DR   SPLIT
             * DDM   ***** Preserved *****

882          KK  RSPLIT
883          KM        ROUTE FLOW FROM SPLIT TO C109
884          RS       1    FLOW      -1
885          RC     .05    .035     .05     800     .05
886          RX    1000    1025    1050    1070    1075    1095    1120    1145
887          RY      30    22.9    15.7      10      10    15.7    22.9      30
             * DDM   ***** Updated *****

888          KK     446
889          KM   SUB-BASIN 446
890          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
891          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
892          KM     L =  .46  Kb = .061  Adj. Slope =  303.9
893          BA    .040
894          LG    .270    .250   4.500    .400  19.000
895          UC    .183    .189
896          UA       0       5      16      30      65      77      84      90      94      97
897          UA     100
             * DDM   ***** Preserved *****

898          KK    C109
899          KM        COMBINE HYDROGRAPHS FROM COMBINES C107 AND C108
900          HC       3
             * DDM   ***** Preserved *****

901          KK    DIV5
902          KM        DIVERT FLOW INTO WASHES TOWARDS WEST
903          KM        DIVERSION THROUGH 36" PIPE WITH 3 FEET OF HEAD
             *      1
904          DT  WSH404
905          DI       0    40.7    71.2   121.6     190     276   379.4   500.6
906          DQ       0      35      35      35      35      35      35      35
             * DDM   ***** Preserved *****

907          KK    R109
908          KM        ROUTE FLOW FROM C109 TO C110
909          RS       1    FLOW      -1
910          RC    .019    .019    .019    3080     .05
911          RX    1000    1005    1010    1015    1025    1030    1035    1040
912          RY   13.75    12.5   11.25      10      10   11.25    12.5   13.75
             * DDM   ***** Updated *****

913          KK     447
914          KM   SUB-BASIN 447
915          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
916          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
917          KM     L =  .49  Kb = .056  Adj. Slope =  221.0
918          BA    .090
1                                        HEC-1 INPUT                                          PAGE 24

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

919          LG    .250    .270   3.350    .870  30.000
920          UC    .208    .145
921          UA       0       5      16      30      65      77      84      90      94      97
922          UA     100
             * DDM   ***** Preserved *****

923          KK   RT404
924          KM        RETRIEVE DIVERTED FLOW FOR WASH 109
925          DR  WSH404
             * DDM   ***** Preserved *****

926          KK    R404
927          KM        ROUTE FLOW FROM C110 TO C110
928          RS       5    FLOW      -1
929          RC    .019    .019    .019    3540     .03
930          RX    1000    1012    1016    1020    1025    1029    1033    1045
931          RY      15      12      11      10      10      11      12      15
             * DDM   ***** Preserved *****

932          KK    C110
933          KM   COMBINE HYDROGRAPHS FROM SUB-BASIN 447 AND R404
934          HC       3
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            * DDM   ***** Preserved *****

935         KK    R110
936         KM        ROUTE FLOW FROM C110 TO C115
937         RS       1    FLOW      -1
938         RC    .019    .019    .019     580   .0291
939         RX    1000    1012    1016    1020    1035    1039    1043    1055
940         RY      15      12      11      10      10      11      12      15
            * DDM   ***** Preserved *****

941         KK    C115
942         KM        COMBINE HYDROGRAPHS FROM C114 AND C110
943         HC       2
            * DDM   ***** Preserved *****

944         KK    R115
945         KM        ROUTE FLOW FROM C115 TO C119
946         RS       1    FLOW      -1
947         RC    .019    .019    .019    2125    .029
948         RC    .019    .019    .019     580   .0291
949         RX    1000    1012    1016    1020    1035    1039    1043    1055
950         RY      15      12      11      10      10      11      12      15
            * DDM   ***** Updated *****

951         KK     448
952         KM   SUB-BASIN 448
953         KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
954         KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
955         KM     L =  .36  Kb = .042  Adj. Slope =  315.0
956         BA    .045
957         LG    .170    .310   4.200    .390  11.000
958         UC    .133    .102
959         UA       0       5      16      30      65      77      84      90      94      97
1                                        HEC-1 INPUT                                          PAGE 25

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

960         UA     100
            * DDM   ***** Updated *****

961         KK     449
962         KM   SUB-BASIN 449
963         KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
964         KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
965         KM     L =  .40  Kb = .054  Adj. Slope =  315.0
966         BA    .050
967         LG    .260    .280   3.500    .640   6.000
968         UC    .167    .134
969         UA       0       5      16      30      65      77      84      90      94      97
970         UA     100
            * DDM   ***** Preserved *****

971         KK   C6364
972         KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 448 & 449
973         HC       2
            * DDM   ***** Preserved *****

974         KK   R6364
975         KM   ROUTE FLOW FROM C116 AND SUB-BASINS 448 AND 449
976         RS       2    FLOW      -1
977         RC     .05    .035     .05    4375   .0333
978         RX    1000    1027    1053    1080    1090    1117    1143    1170
979         RY      15   13.33   11.67      10      10   11.67   13.33      15
            * DDM   ***** Updated *****

980         KK     450
981         KM   SUB-BASIN 450
982         KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
983         KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
984         KM     L =  .85  Kb = .057  Adj. Slope =  210.5
985         BA    .070
986         LG    .340    .350   3.630    .570   4.000
987         UC    .296    .383
988         UA       0       3       5       8      12      20      43      75      90      96
989         UA     100
            * DDM   ***** Updated *****

990         KK     451
991         KM   SUB-BASIN 451
992         KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
993         KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
994         KM     L =  .57  Kb = .063  Adj. Slope =  175.0
995         BA    .025
996         LG    .340    .340   3.290    .750   3.000
997         UC    .271    .453
998         UA       0       3       5       8      12      20      43      75      90      96
999         UA     100
            * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 26

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

1000        KK    RT66
1001        KM        RETRIEVE DIVERTED FLOW FROM SUB-BASIN 66
1002        DR   WSH66
            * DDM   ***** Updated *****

1003        KK     452
1004        KM   SUB-BASIN 452
1005        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1006        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
1007        KM     L =  .43  Kb = .055  Adj. Slope =  315.0
1008        BA    .040
1009        LG    .260    .280   3.700    .550   9.000
1010        UC    .171    .166
1011        UA       0       5      16      30      65      77      84      90      94      97
1012        UA     100
            * DDM   ***** Preserved *****

1013        KK   C6465
1014        KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 443 AND 452
1015        HC       2
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                * DDM   ***** Preserved *****

1016            KK   R6566
1017            KM        ROUTE FLOW FROM DIVERSIONS 65 AND 66 TO C116
1018            RS       2    FLOW      -1
1019            RC     .05    .035     .05    2435   .0282
1020            RX    1000    1045    1090    1150    1160    1220    1265    1310
1021            RY      25      23      20      10      10      20      23      25
                * DDM   ***** Preserved *****

1022            KK    C116
1023            KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 450 & 451 AND R6364 & R6465
1024            HC       4
                * DDM   ***** Preserved *****

1025            KK  BASIN5
1026            KM        RESERVOIR WITHIN PARCEL 31      2-48 INCH PIPES AT OUTFALL
1027            KM        BASIN 5 FEET DEEP
1028            RS       1    ELEV       0
1029            SV       0     4.5     9.9
1030            SQ       0      69     190
1031            SE       0     2.5       5
                * DDM   ***** Preserved *****

1032            KK    R116
1033            KM   ROUTE FLOW FROM C116 TO C117
1034            RS       2    FLOW      -1
1035            RC     .05    .035     .05    1300   .0333
1036            RX    1000    1100    1200    1300    1320    1420    1520    1620
1037            RY      13      12      11      10      10      11      12      13
                * DDM   ***** Updated *****
1                                   HEC-1 INPUT                                          PAGE 27

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


1038            KK     453
1039            KM   SUB-BASIN 453
1040            KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1041            KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
1042            KM     L =  .58  Kb = .058  Adj. Slope =  138.0
1043            BA    .060
1044            LG    .290    .300   3.290    .820  18.000
1045            UC    .275    .284
1046            UA       0       5      16      30      65      77      84      90      94      97
1047            UA     100
                * DDM   ***** Preserved *****

1048            KK    C117
1049            KM   COMBINE HYDROGRAPHS FROM SUB-BASIN 453 AND R116
1050            HC       2
                * DDM   ***** Preserved *****

1051            KK    C118
1052            KM   COMBINE HYDROGRAPHS FROM R115 AND C117
1053            HC       2
                * DDM   ***** Preserved *****

1054            KK    R118
1055            KM        ROUTE FLOW FROM C118 TO  DIV7
1056            RS       1    FLOW      -1
1057            RC    .019    .019    .019    1500    .024
1058            RX    1000    1012    1016    1020    1035    1039    1043    1055
1059            RY      15      12      11      10      10      11      12      15
                * DDM   ***** Preserved *****

1060            KK    DIV7
1061            KM        OFFLINE BASIN AT NORTH MOUNTAIN RIDGE   FLOWS ENTER BASIN OVER
1062            KM        30' WEIR SET AT 5.3' ABOVE THE CHANNEL BOTTOM
                *      1
1063            DT  BASIN6
1064            DI       0     363     487     563     645     844
1065            DQ       0       3      47      83     125     244
                * DDM   ***** Preserved *****

1066            KK  RTDIV7
1067            KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
1068            DR  BASIN6
                * DDM   ***** Preserved *****

1069            KK  RFDIV7
1070            KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
1071            KM     3.6 ACRE-FEETx43560/36x3600=1.2cfs
1072            RS       1    STOR       0
1073            SV       0     .01     3.6
1074            SQ       0     1.2     1.2
                * DDM   ***** Preserved *****
1                                   HEC-1 INPUT                                          PAGE 28

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


1075            KK   CDIV7
1076            KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
1077            HC       2
                * DDM   ***** Updated *****

1078            KK     454
1079            KM   SUB-BASIN 454
1080            KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1081            KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1082            KM     L = 1.23  Kb = .051  Adj. Slope =  163.0
1083            BA    .180
1084            LG    .300    .310   3.780    .560  14.000
1085            UC    .379    .395
1086            UA       0       5      16      30      65      77      84      90      94      97
1087            UA     100
                * DDM   ***** Preserved *****

1088            KK    C119
1089            KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 454 AND C119
                *      1       2
1090            HC       2
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            * DDM   ***** Preserved *****

1091        KK    R454
1092        KM   ROUTE FLOW FROM C119 TO 415C
1093        RS       8    FLOW      -1
1094        RC    .045    .035    .045    6000    .005
1095        RX    1000    1010    1020    1036    1041    1057    1067    1077
1096        RY      15    14.5      14      10      10      14    14.5      15
            * DDM   ***** Updated *****

1097        KK     415
1098        KM   SUB-BASIN 415
1099        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1100        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
1101        KM     L = 2.10  Kb = .046  Adj. Slope =  266.0
1102        BA    .448
1103        LG    .310    .270   4.250    .480  15.000
1104        UC    .404    .387
1105        UA       0       5      16      30      65      77      84      90      94      97
1106        UA     100
            * DDM   ***** Preserved *****

1107        KK   RT385
1108        KM   RETRIEVE FLOW FROM DIVERSION OF SUB-BASIN 385 INTO SUB-BASIN 415
1109        DR   SF385
            * DDM   ***** Preserved *****

1110        KK   RR385
1111        KM   ROUTING OF SPLIT FLOW FROM SUB-BASIN 385 TO SUB-BASIN 415
1112        RS       5    FLOW      -1
1113        RC    .045    .045    .045    5878    .024
1114        RX       0       1       2      14      19      31      32      33
1115        RY       4       4       4       0       0       4       4       4
            * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                    PAGE 29

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

1116        KK    415C
1117        KM   HYDROGRAPH COMBINATION OF SUB-BASINS 415, R454 & SPLIT FLOW FROM 385
1118        HC       3
            * DDM   ***** Preserved *****

1119        KK    R415
1120        KM   ROUTING OF FLOW FROM 415C TO 455C
1121        RS       3    FLOW      -1
1122        RC    .045    .045    .045    3900    .021
1123        RX       0       1       2      14      44      56      57      58
1124        RY       4       4       4       0       0       4       4       4
            * DDM   ***** Updated *****

1125        KK     455
1126        KM   SUB-BASIN 455
1127        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1128        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .993
1129        KM     L = 1.70  Kb = .041  Adj. Slope =  146.0
1130        BA   1.111
1131        LG    .270    .280   3.700    .640  24.000
1132        UC    .421    .204
1133        UA       0       5      16      30      65      77      84      90      94      97
1134        UA     100
            * DDM   ***** Preserved *****

1135        KK    D455
1136        KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
1137        KM   DETENTION/RETENTION BASINS LOCATED WITHIN LAS SENDAS ADDENDUM III
1138        KM   FOR BASIN #: 30      34      43      47&58
1139        KM        MAXIMUM VOLUME DIVERSION = 74.1 acre-feet
            *      1
1140        DT   BS455    74.1
1141        DI       0   10000
1142        DQ       0   10000
            * DDM   ***** Preserved *****

1143        KK   RT455
1144        KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
1145        DR   BS455
            * DDM   ***** Preserved *****

1146        KK   SR455
1147        KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
1148        KM    74.1 ACRE-FEETx43560/36x3600=25cfs
1149        RS       1    STOR       0
1150        SV       0     .01    74.1
1151        SQ       0      25      25
            * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                    PAGE 30

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

1152        KK    C455
1153        KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 455 AND DIVERTED BASIN STORAGE OF 455
1154        HC       2
            * DDM   ***** Preserved *****

1155        KK    455C
1156        KM  HYDROGRAPH COMBINATION OF 420C, R415 AND C455
            *      1       2
1157        HC       3
            * DDM   ***** Preserved *****

1158        KK   SR440
1159        KM   SPOOK HILL FRS PLANS DATED 6/15/77
1160        KM   OUTLET PIPE=7'x7.5'RCBC; L=70 INLET INV.=1566; OUTLET INV.=1566
1161        KM   EMERGENCY SPILLWAY ELEV.=1582; PRINCIPLE SPILLWAY ELEV.=1577.5
1162        KM   STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 200 ACRE-FEET
1163        RS       1    STOR       0
1164        SV       0      10     100     300     500     680
1165        SQ       0     640     720     780     825     860
1166        SE      66    77.5      79    80.2    81.2      82
            * DDM   ***** Preserved *****
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1167        KK   RR455
1168        KM   ROUTE FLOW FROM SPOOK HILL FRS TO SUB-BASIN 462
1169        RS       9    FLOW      -1
1170        RC    .035    .025    .035    9200    .002
1171        RX       0       1       2      28      58      84      85      86
1172        RY    13.5    13.5    13.5       0       0    13.5    13.5    13.5
            * DDM   ***** Updated *****

1173        KK     456
1174        KM   SUB-BASIN 456
1175        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1176        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
1177        KM     L =  .94  Kb = .045  Adj. Slope =  315.0
1178        BA    .260
1179        LG    .300    .380   5.600    .200  12.000
1180        UC    .217    .139
1181        UA       0       5      16      30      65      77      84      90      94      97
1182        UA     100
            * DDM   ***** Preserved *****

1183        KK    DIV1
1184        KM        DIVERT FLOW INTO OFFLINE DETENTION BASIN
1185        KM        WEIR FOR BASIN SET AT 4 FEET ABOVE CHANNEL BOTTOM
            *      1
1186        DT  BASIN1
1187        DI       0    11.1   127.9   234.4   577.7   789.9  1025.5  1280.9  1555.7
1188        DQ       0       0       0    47.7     248   381.8   533.6   701.5     884
            * DDM   ***** Preserved *****
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LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1189        KK    DIV2
1190        KM        SPLIT OUT FLOW FOR WASHES THAT FLOW TO THE SOUTH FROM
1191        KM        WASHES THAT DRAIN TO THE WES, SOUTHERN WASHES FED BY 30" & 24" PIPE
1192        DT    WA30
1193        DI       0    11.1   127.9   189.6   329.7     408   491.9   579.4   671.7
1194        DQ       0    11.1    38.4    48.2      63    69.5      76      81      86
            * DDM   ***** Preserved *****

1195        KK    R456
1196        KM        ROUTE FLOW FROM SUB-BASIN 51 TO C101
1197        RS       2    FLOW      -1
1198        RC     .05    .035     .05    3800    .044
1199        RX    1000    1010    1020    1036    1041    1057    1067    1077
1200        RY   14.88   14.44      14      10      10      14   14.44   14.88
            * DDM   ***** Updated *****

1201        KK     457
1202        KM   SUB-BASIN 457
1203        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1204        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1205        KM     L = 1.01  Kb = .045  Adj. Slope =  308.8
1206        BA    .190
1207        LG    .270    .330   3.950    .460   6.000
1208        UC    .237    .195
1209        UA       0       5      16      30      65      77      84      90      94      97
1210        UA     100
            * DDM   ***** Preserved *****

1211        KK    C101
1212        KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 50 AND 51
1213        HC       2
            * DDM   ***** Preserved *****

1214        KK    DIV3
1215        KM        RESERVOIR AT THE EDGE OF THE PROPERTY   FLOW FROM CHANNEL
1216        KM        DIVERTED  INTO OFFLINE BASIN A 25' WEIR SET AT ELEVATION 1808 FT
            *      1
1217        DT  BASIN2
1218        DI       0      36      70     110     180   313.5     402   500.9
1219        DQ       0       0       0       0       0    67.5     124   190.9
            * DDM   ***** Preserved *****

1220        KK  RTDIV3
1221        KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
1222        DR  BASIN2
            * DDM   ***** Preserved *****

1223        KK  RFDIV3
1224        KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
1225        KM     5.0 ACRE-FEETx43560/36x3600=1.7cfs
1226        RS       1    STOR       0
1227        SV       0     .01       5
1228        SQ       0     1.7     1.7
            * DDM   ***** Preserved *****
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LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1229        KK   CDIV3
1230        KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
1231        HC       2
            * DDM   ***** Preserved *****

1232        KK    R101
1233        KM        ROUTE FLOW FROM SUBBASIN C101 TO C103
1234        RS       1    FLOW      -1
1235        RC     .05    .035     .05    1450     .05
1236        RX    1000    1010    1020    1036    1041    1057    1067    1077
1237        RY      15    14.5      14      10      10      14    14.5      15
            * DDM   ***** Updated *****

1238        KK     458
1239        KM   SUB-BASIN 458
1240        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1241        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1242        KM     L =  .76  Kb = .048  Adj. Slope =  299.0
1243        BA    .190
1244        LG    .290    .330   5.800    .190   6.000
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1245          UC    .204    .131
1246          UA       0       5      16      30      65      77      84      90      94      97
1247          UA     100
              * DDM   ***** Preserved *****

1248          KK    C103
1249          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 55 AND C101
1250          HC       2
              * DDM   ***** Preserved *****

1251          KK    R103
1252          KM        ROUTE FLOW FROM SUBBASIN C103 TO C106
1253          RS       1    FLOW      -1
1254          RC     .05    .036     .05     900     .03
1255          RX    1000    1010    1020    1030    1050    1060    1070    1080
1256          RY   13.16   12.83    12.5      10      10    12.5   12.83   13.16
              * DDM   ***** Preserved *****

1257          KK    RT30
1258          KM        RETRIEVE DIVERTED FLOW FOR WASH BELOW 30 INCH PIPE
1259          DR    WA30
              * DDM   ***** Preserved *****

1260          KK     R30
1261          KM        ROUTE FLOW FROM WASH DIVERSION TO COMBINE C52
1262          RS       1    FLOW      -1
1263          RC     .05    .035     .05    1630     .05
1264          RX    1000    1010    1020    1036    1041    1057    1067    1077
1265          RY      15    14.5      14      10      10      14    14.5      15
              * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 33

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

1266          KK    RTB1
1267          KM        RETRIEVE DIVERTED FLOW FROM BASIN 1
              *      1       2
1268          DR  BASIN1
              * DDM   ***** Preserved *****

1269          KK      B1
1270          KM        ROUTE FLOW THROUGH OFFLINE DETENTION BASIN
1271          KM        FLOW OUTLETS THROUGH A 30 INCH OUTLET PIPE
              *      1       2
1272          RS       1    ELEV       0
1273          SV              .7     1.4     2.3     2.7     3.2
1274          SQ       0       5      16      28    32.5      37
1275          SE       0       1       2       3     3.5       4
              * DDM   ***** Preserved *****

1276          KK     RB1
1277          KM        ROUTE FLOW FROM BASIN DIVERSION TO COMBINE C52
1278          RS       2    FLOW      -1
1279          RC     .05    .035     .05    1720     .05
1280          RX    1000    1010    1020    1036    1041    1057    1067    1077
1281          RY      15    14.5      14      10      10      14    14.5      15
              * DDM   ***** Preserved *****

1282          KK    CDIV
1283          KM        COMBINE FLOWS FROM WA30 AND BASIN 1
1284          HC       2     .12
              * DDM   ***** Updated *****

1285          KK     459
1286          KM   SUB-BASIN 459
1287          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1288          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
1289          KM     L =  .35  Kb = .052  Adj. Slope =  251.6
1290          BA    .030
1291          LG    .220    .300   3.330    .710   8.000
1292          UC    .162    .157
1293          UA       0       5      16      30      65      77      84      90      94      97
1294          UA     100
              * DDM   ***** Preserved *****

1295          KK     C52
1296          KM        COMBINE FLOWS FROM SUB-BASIN 52 WA30 AND BASIN 1
1297          HC       2
              * DDM   ***** Preserved *****

1298          KK     R52
1299          KM        ROUTE FLOW FROM SUBBASIN 52 TO C102
1300          RS       2    FLOW      -1
1301          RC     .05    .035     .05    2000     .05
1302          RX    1000    1010    1020    1036    1041    1057    1067    1077
1303          RY      15    14.5      14      10      10      14    14.5      15
              * DDM   ***** Updated *****
1                                        HEC-1 INPUT                                          PAGE 34

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

1304          KK     460
1305          KM   SUB-BASIN 460
1306          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1307          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1308          KM     L =  .62  Kb = .058  Adj. Slope =  194.0
1309          BA    .140
1310          LG    .250    .260   3.740    .690  27.000
1311          UC    .242    .160
1312          UA       0       5      16      30      65      77      84      90      94      97
1313          UA     100
              * DDM   ***** Preserved *****

1314          KK    C102
1315          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 52 AND 53
1316          HC       2
              * DDM   ***** Preserved *****

1317          KK  BASIN3
1318          KM        RESERVOIR AT CLUBHOUSE LOCATION 1-30 INCH PIPE AT OUTFALL
1319          KM        BOTTOM OF BASIN AT 6 FEET ABOVE 1795 ELEVATION
```

```
1320        RS       1    ELEV      0
1321        SA       0       0       0       0     .34    1.59    1.81    1.96    2.13     2.3
            *      0       0       0       0    1.14    3.25    5.52    9.23
1322        SQ       0      22      45    47.4      48      51      57      62      67      73
1323        SE    1795  1797.5    1800  1800.4  1800.5    1801    1802    1803    1804  1805.5
            * DDM   ***** Preserved *****

1324        KK      R3
1325        KM        ROUTE FLOW FROM C102 to C106
1326        RS       4    FLOW      -1
1327        RC     .05     .03     .05    2750   .0375
1328        RX    1000    1010    1020    1052    1086    1118    1128    1138
1329        RY    19.2    18.4      18      10      10      18    18.4    19.2
            * DDM   ***** Updated *****

1330        KK     461
1331        KM   SUB-BASIN 461
1332        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1333        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1334        KM     L =  .83  Kb = .052  Adj. Slope =  181.0
1335        BA    .120
1336        LG    .270    .250   4.250    .450  21.000
1337        UC    .271    .250
1338        UA       0       5      16      30      65      77      84      90      94      97
1339        UA     100
            * DDM   ***** Preserved *****

1340        KK    C104
1341        KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 54 AND R102
1342        HC       2
            * DDM   ***** Preserved *****
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```
LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1343        KK    C106
1344        KM        COMBINE HYDROGRAPHS FROM SUB-BASIN C103 AND C104
1345        HC       2
            * DDM   ***** Preserved *****

1346        KK    R106
1347        KM        ROUTE FLOW FROM C106 TO C49
1348        RS       2    FLOW      -1
1349        RC     .05    .035     .05    3950    .033
1350        RX    1000    1010    1020    1030    1050    1060    1070    1080
1351        RY   13.16   12.83    12.5      10      10    12.5   12.83   13.16
            * DDM   ***** Updated *****

1352        KK     462
1353        KM   SUB-BASIN 462
1354        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1355        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
1356        KM     L =  .97  Kb = .045  Adj. Slope =  297.7
1357        BA    .301
1358        LG    .300    .330   5.300    .240  12.000
1359        UC    .225    .137
1360        UA       0       5      16      30      65      77      84      90      94      97
1361        UA     100
            * DDM   ***** Preserved *****

1362        KK     C56
1363        KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 56 AND C106
            *      1       2
1364        HC       2
            * DDM   ***** Updated *****

1365        KK     480
1366        KM   SUB-BASIN 480
1367        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1368        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
1369        KM     L = 1.21  Kb = .042  Adj. Slope =  165.0
1370        BA    .731
1371        LG    .270    .270   3.580    .730  27.000
1372        UC    .325    .148
1373        UA       0       5      16      30      65      77      84      90      94      97
1374        UA     100
            * DDM   ***** Preserved *****

1375        KK    D480
1376        KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
1377        KM   DETENTION/RETENTION BASINS LOCATED WITHIN LAS SENDAS ADDENDUM III
1378        KM   FOR BASIN #: 18 & 26
1379        KM        MAXIMUM VOLUME DIVERSION = 16.5 acre-feet
            *      1
1380        DT   BS480    16.5
1381        DI       0   10000
1382        DQ       0   10000
            * DDM   ***** Preserved *****
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LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1383        KK   RT480
1384        KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
1385        DR   BS480
            * DDM   ***** Preserved *****

1386        KK   SR480
1387        KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
1388        KM    16.5 ACRE-FEETx43560/36x3600=5.5cfs
1389        RS       1    STOR       0
1390        SV       0     .01    16.5
1391        SQ       0     5.6     5.6
            * DDM   ***** Preserved *****

1392        KK    C480
1393        KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
1394        HC       2
            * DDM   ***** Preserved *****

1395        KK    480C
```

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KM   HYDROGRAPH COMBINATION FOR THE ENTIRE WATERSHED AT THE SALT RIVER
HC       3    2.09
* DDM   ***** Preserved *****

KK   RR480
KM   ROUTE FLOW FROM SUB-BASIN 480 TO SUB-BASIN 500
RS       1    FLOW      -1
RC    .025    .025    .025    6500     .05
RX       0       1       2      28      58      84      85      86
RY    13.5    13.5    13.5       0       0    13.5    13.5    13.5
* DDM   ***** Updated *****

KK     500
KM   SUB-BASIN 500
KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
KM     L = 2.77  Kb = .042  Adj. Slope =  286.8
BA    .930
LG    .350    .400   6.000    .170   9.000
UC    .421    .333
UA       0       3       5       8      12      20      43      75      90      96
UA     100
* DDM   ***** Preserved *****

KK    500C
KM   HYDROGRAPH COMBINATION FOR THE ENTIRE WATERSHED AT THE SALT RIVER
HC       2    2.84
ZZ
```

SCHEMATIC DIAGRAM OF STREAM NETWORK

```
INPUT
 LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

  NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

  41          10
               V
               V
  51         R10
               .
               .
  57           .          20
               .           .
               .           .
  67         C20............
               .
               .
  70           .          40
               .           .
               .           .
  80           .           .          60
               .           .           .
               .           .           .
  90         60C......................
               V
               V
  93        SR60
               V
               V
 102         R60
               V
               V
 108        RR60
               .
               .
 114           .          80
               .           .
               .           .
 124         80C............
               V
               V
 127         R80
               .
               .
 133           .         100
               .           .
               .           .
 143        100C............
               V
               V
 146        R100
               .
               .
 152           .         120
               .           .
               .           .
 162        120C............
               V
               V
 165        R120
               .
               .
 171           .         140
               .           .
               .           .
 181           .           .        150
               .           .          V
               .           .          V
 191           .           .       R150
               .           .           .
               .           .           .
 197           .           .           .        160
               .           .           .          .
               .           .           .          .
 207           .           .           .          .        180
               .           .           .          .          .
               .           .           .          .          .
 217        180C.............................................
               .
               .
 220           .         350
               .           .
               .           .
 233           .           .-------->   SF350
 230           .        D350
               .           V
               .           V
 236           .        350R
               .           .
               .           .
 242           .           .        310
               .           .           .
               .           .           .
 252           .        C310............
               .           V
               .           V
 255           .        R310
               .           .
               .           .
 261           .           .        295
               .           .           .
               .           .           .
 271           .        295C............
               .           V
               .           V
 274           .        R295
               .           .
               .           .
 281           .           .        240
               .           .           .
               .           .           .
```

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291          .        240C............
             .           V
             .           V
294          .        R240
             .           .
             .           .
301          .           .        210
             .           .          V
             .           .          V
311          .           .       R210
             .           .          .
             .           .          .
317          .           .          .        220
             .           .          .          .
             .           .          .          .
327          .        220C......................
             .           V
             .           V
330          .        R220
             .           .
             .           .
337          .           .        190
             .           .          V
             .           .          V
347          .           .       R190
             .           .          .
             .           .          .
353          .           .          .        200
             .           .          .          .
             .           .          .          .
363          .        200C......................
             .           V
             .           V
366          .        R200
             .           .
             .           .
372       C180............
             V
             V
375      SR180
             V
             V
384       R180
             .
             .
390          .        260
             .           .
             .           .
400       260C............
             V
             V
403       R260
             .
             .
409          .        280
             .           .
             .           .
419       280C............
             V
             V
422       R280
             .
             .
428          .        300
             .           .
             .           .
438       300C............
             V
             V
441       R300
             V
             V
447      RR300
             .
             .
453          .        320
             .           .
             .           .
468          .           .-------> BS320
463          .        D320
             .           .
             .           .
473          .           .          .<-------  BS320
471          .           .       RT320
             .           .          V
             .           .          V
474          .           .       SR320
             .           .          .
             .           .          .
480       C320......................
             .
             .
483          .        340
             .           .
             .           .
498          .           .-------> BS340
493          .        D340
             .           .
             .           .
503          .           .          .<-------  BS340
501          .           .       RT340
             .           .          V
             .           .          V
504          .           .       SR340
             .           .          .
             .           .          .
510       C340......................
             .
             .
515          .           .<-------  SF350
513          .        RT350
             .           V
             .           V
```

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516          .      RR350
             .        .
             .        .
522          .        .        355
             .        .         .
             .        .         .
532          .      C355............
             .        V
             .        V
535          .      R355
             .        .
             .        .
541          .        .        370
             .        .         V
             .        .         V
551          .        .       R370
             .        .         .
             .        .         .
557          .        .         .        360
             .        .         .         .
             .        .         .         .
571          .        .         .         .-------->   BS360
567          .        .         .       D360
             .        .         .         .
             .        .         .         .
576          .        .         .         .          .<-------   BS360
574          .        .         .         .      RT360
             .        .         .         .         V
             .        .         .         .         V
577          .        .         .         .      SR360
             .        .         .         .         .
             .        .         .         .         .
583       360C.............................................
             .
             .
586          .      395
             .        V
             .        V
596          .      R395
             .        .
             .        .
602          .        .        380
             .        .         .
             .        .         .
616          .        .         .-------->   BS380
612          .        .       D380
             .        .         .
             .        .         .
621          .        .         .          .<-------   BS380
619          .        .         .       RT380
             .        .         .         V
             .        .         .         V
622          .        .         .       SR380
             .        .         .         .
             .        .         .         .
628       380C...................................
             .
             .
631          .      390
             .        .
             .        .
645          .        .-------->   BS390
641          .      D390
             .        .
             .        .
650          .        .          .<-------   BS390
648          .        .      RT390
             .        .         V
             .        .         V
651          .        .      SR390
             .        .         .
             .        .         .
657          .      390C............
             .        V
             .        V
660          .      RR390
             .        .
             .        .
666          .        .        400
             .        .         .
             .        .         .
680          .        .         .-------->   BS400
676          .        .       D400
             .        .         .
             .        .         .
685          .        .         .          .<-------   BS400
683          .        .         .       RT400
             .        .         .         V
             .        .         .         V
686          .        .         .       SR400
             .        .         .         .
             .        .         .         .
692          .        .       C400............
             .        .         .
             .        .         .
695       400C........................
             .
             .
698          .      385
             .        .
             .        .
710          .        .-------->   SF385
708          .      D385
             .        V
             .        V
713          .      385R
             .        .
             .        .
719          .        .        420
             .        .         .
             .        .         .
733          .        .         .-------->   BS420
729          .        .       D420
```

```
738                                  .<-------   BS420
736                            RT420
                                  V
                                  V
739                            SR420
                                  .
                                  .
745        420C...................................
                                  .
748                440
                     V
                     V
758                R70
                     .
                     .
764                     441
                     .
                     .
774              C108............
                     .
                     .
779                  .------->   SPLIT
777              DIV4
                     V
                     V
782              R108
                     .
                     .
788                     442
                     .
                     .
798               C67............
                     .
                     .
804                  .------->  BASIN4
801              DIV6
                     .
                     .
809                     .<-------  BASIN4
807                  .     RTDIV6
                     .        V
                     .        V
810                  .     RFDIV6
                     .        .
                     .        .
816             CDIV6............
                     .
                     .
819                  .        443
                     .        .
                     .        .
832                  .        .------->   WSH66
829                  .      DIV66
                     .        V
                     .        V
835                  .      R113
                     .        .
                     .        .
841              C114............
                     .
                     .
844                  .        444
                     .         V
                     .         V
854                  .        R58
                     .        .
                     .        .
860                  .        .        445
                     .        .          .
                     .        .          .
870                  .      C107............
                     .        V
                     .        V
873                  .      R107
                     .        .
                     .        .
881                  .        .          .<-------   SPLIT
879                  .        .       RTB2
                     .        .          V
                     .        .          V
882                  .        .     RSPLIT
                     .        .          .
                     .        .          .
888                  .        .          .        446
                     .        .          .          .
                     .        .          .          .
898                  .      C109........................
                     .        .
                     .        .
904                  .        .------->  WSH404
901                  .      DIV5
                     .        V
                     .        V
907                  .      R109
                     .        .
                     .        .
913                  .        .        447
                     .        .          .
                     .        .          .
925                  .        .          .          .<-------  WSH404
923                  .        .          .      RT404
                     .        .          .          V
                     .        .          .          V
926                  .        .          .       R404
                     .        .          .          .
                     .        .          .          .
932                  .      C110........................
                     .        V
                     .        V
935                  .      R110
```

```
941          C115............
                V
                V
944          R115

951                448

961                        449

971             C6364............
                   V
                   V
974             R6364

980                        450

990                                451

1002                                          .<-------   WSH66
1000                                       RT66
1003                                                        452
1013                                    C6465............
                                           V
                                           V
1016                                    R6566

1022            C116.................................
                   V
                   V
1025            BASIN5
                   V
                   V
1032            R116

1038                       453

1048            C117............

1051         C118............
                V
                V
1054         R118

1063            -------> BASIN6
1060         DIV7

1068                    <-------  BASIN6
1066            RTDIV7
                   V
                   V
1069            RFDIV7

1075         CDIV7............

1078               454

1088         C119............
                V
                V
1091         R454

1097               415

1109                           <-------   SF385
1107                        RT385
                               V
                               V
1110                        RR385

1116         415C........................
                V
                V
1119         R415

1125               455

1140                        -------> BS455
1135            D455

1145                           <-------   BS455
1143                        RT455
                               V
                               V
1146                        SR455
```

```
1152          .           .       C455...........
              .           .           .
              .           .           .
1155       455C.......................
              V
              V
1158      SR440
              V
              V
1167      RR455
              .
              .
1173          .         456
              .           .
              .           .
1186          .           .-------> BASIN1
1183          .        DIV1
              .           .
              .           .
1192          .           .------->   WA30
1189          .        DIV2
              .           V
              .           V
1195          .        R456
              .           .
              .           .
1201          .           .        457
              .           .           .
              .           .           .
1211          .        C101...........
              .           .
              .           .
1217          .           .-------> BASIN2
1214          .        DIV3
              .           .
              .           .
1222          .           .           .<-------  BASIN2
1220          .           .     RTDIV3
              .           .           V
              .           .           V
1223          .           .     RFDIV3
              .           .           .
              .           .           .
1229          .      CDIV3...........
              .           V
              .           V
1232          .        R101
              .           .
              .           .
1238          .           .        458
              .           .           .
              .           .           .
1248          .        C103...........
              .           V
              .           V
1251          .        R103
              .           .
              .           .
1259          .           .           .<-------    WA30
1257          .           .       RT30
              .           .           V
              .           .           V
1260          .           .        R30
              .           .           .
              .           .           .
1268          .           .           .           .<-------  BASIN1
1266          .           .           .       RTB1
              .           .           .          V
              .           .           .          V
1269          .           .           .         B1
              .           .           .          V
              .           .           .          V
1276          .           .           .        RB1
              .           .           .           .
              .           .           .           .
1282          .           .       CDIV...........
              .           .           .
              .           .           .
1285          .           .           .        459
              .           .           .           .
              .           .           .           .
1295          .           .        C52...........
              .           .           V
              .           .           V
1298          .           .        R52
              .           .           .
              .           .           .
1304          .           .           .        460
              .           .           .           .
              .           .           .           .
1314          .           .       C102...........
              .           .           V
              .           .           V
1317          .           .     BASIN3
              .           .           V
              .           .           V
1324          .           .         R3
              .           .           .
              .           .           .
1330          .           .           .        461
              .           .           .           .
              .           .           .           .
1340          .           .       C104...........
              .           .           .
              .           .           .
1343          .        C106...........
              .           V
              .           V
1346          .        R106
              .           .
              .           .
1352          .           .        462
              .           .           .
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1362          .         .          .
              .        C56.........
              .          .
1365          .          .        480
              .          .          .
              .          .          .
1380          .          .          .-------->   BS480
1375          .          .       D480
              .          .          .
              .          .          .
1385          .          .          .          .<-------   BS480
1383          .          .          .      RT480
              .          .          .          V
              .          .          .          V
1386          .          .          .      SR480
              .          .          .          .
              .          .          .          .
1392          .          .       C480...........
              .          .          .
              .          .          .
1395       480C......................
             V
             V
1398      RR480
              .
              .
1404          .        500
              .          .
              .          .
1414       500C...........
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(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

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

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
	HYDROGRAPH AT	10	951.	12.27	114.	31.	15.	.70		
+	ROUTED TO	R10	826.	12.60	114.	31.	15.	.70		
+	HYDROGRAPH AT	20	959.	12.43	128.	32.	16.	1.12		
+	2 COMBINED AT	C20	1635.	12.53	240.	63.	30.	1.82		
+	HYDROGRAPH AT	40	2582.	12.30	252.	66.	32.	2.23		
+	HYDROGRAPH AT	60	1553.	12.40	228.	61.	29.	1.75		
+	3 COMBINED AT	60C	5014.	12.37	708.	188.	90.	5.80		
+	ROUTED TO	SR60	92.	14.47	92.	89.	70.	5.80		
+	ROUTED TO	R60	92.	14.53	92.	89.	70.	5.80		
+	ROUTED TO	RR60	92.	14.63	92.	89.	70.	5.80		
+	HYDROGRAPH AT	80	1868.	12.27	179.	46.	22.	1.48		
+	2 COMBINED AT	80C	1942.	12.27	266.	134.	92.	1.48		
+	ROUTED TO	R80	1919.	12.27	266.	134.	92.	1.48		
+	HYDROGRAPH AT	100	404.	12.20	58.	15.	7.	.48		
+	2 COMBINED AT	100C	2300.	12.27	321.	148.	99.	1.96		
	ROUTED TO	R100	2292.	12.30	321.	148.	99.	1.96		
+	HYDROGRAPH AT	120	3232.	12.27	326.	88.	42.	2.20		
+	2 COMBINED AT	120C	5469.	12.27	636.	229.	140.	4.16		
+	ROUTED TO	R120	5397.	12.30	636.	229.	140.	4.16		
+	HYDROGRAPH AT	140	632.	12.13	64.	17.	8.	.60		
+	HYDROGRAPH AT	150	135.	13.20	47.	13.	6.	.41		
+	ROUTED TO	R150	132.	13.67	47.	13.	6.	.41		
+	HYDROGRAPH AT	160	217.	12.40	35.	9.	4.	.37		
+	HYDROGRAPH AT	180	785.	12.37	90.	23.	11.	1.00		
+	5 COMBINED AT	180C	6707.	12.30	856.	286.	168.	6.54		
+	HYDROGRAPH AT	350	1192.	12.20	104.	27.	13.	.96		
+	DIVERSION TO	SF350	715.	12.20	63.	16.	8.	.96		
+	HYDROGRAPH AT	D350	477.	12.20	42.	11.	5.	.96		
+	ROUTED TO	350R	420.	12.43	42.	11.	5.	.96		
+	HYDROGRAPH AT	310	376.	12.33	49.	12.	6.	.56		
+	2 COMBINED AT	C310	760.	12.40	90.	23.	11.	.94		
	ROUTED TO	R310	699.	12.60	90.	23.	11.	.94		
	HYDROGRAPH AT	295	364.	12.30	40.	10.	5.	.38		
+	2 COMBINED AT	295C	878.	12.60	129.	33.	16.	1.32		
+	ROUTED TO	R295	862.	12.63	129.	33.	16.	1.32		

+	HYDROGRAPH AT 240	846.	12.33	107.	27.	13.	1.04
+	2 COMBINED AT 240C	1354.	12.60	233.	59.	29.	2.36
	ROUTED TO R240	1325.	12.67	233.	59.	29.	2.36
+	HYDROGRAPH AT 210	873.	12.20	82.	22.	10.	.58
+	ROUTED TO R210	803.	12.30	82.	22.	10.	.58
+	HYDROGRAPH AT 220	1057.	12.17	93.	23.	11.	.69
+	3 COMBINED AT 220C	2429.	12.33	402.	103.	49.	3.63
+	ROUTED TO R220	2407.	12.37	402.	103.	49.	3.63
+	HYDROGRAPH AT 190	1403.	12.17	116.	31.	15.	.92
+	ROUTED TO R190	1272.	12.30	116.	31.	15.	.92
+	HYDROGRAPH AT 200	1399.	12.17	115.	30.	15.	.92
+	3 COMBINED AT 200C	4540.	12.27	623.	162.	78.	5.47
+	ROUTED TO R200	4516.	12.30	623.	162.	78.	5.47
+	2 COMBINED AT C180	11024.	12.30	1451.	437.	242.	12.00
+	ROUTED TO SR180	143.	17.10	143.	142.	116.	12.00
+	ROUTED TO R180	143.	17.17	143.	142.	116.	12.00
+	HYDROGRAPH AT 260	418.	12.10	43.	12.	6.	.27
+	2 COMBINED AT 260C	528.	12.13	181.	153.	123.	.27
	ROUTED TO R260	510.	12.20	181.	153.	123.	.27
+	HYDROGRAPH AT 280	478.	12.10	42.	12.	6.	.30
+	2 COMBINED AT 280C	942.	12.13	220.	163.	128.	.57
+	ROUTED TO R280	906.	12.20	220.	163.	128.	.57
+	HYDROGRAPH AT 300	835.	12.13	77.	21.	10.	.68
+	2 COMBINED AT 300C	1692.	12.17	293.	182.	137.	1.25
+	ROUTED TO R300	1647.	12.23	293.	182.	137.	1.25
+	ROUTED TO RR300	1583.	12.27	292.	182.	136.	1.25
+	HYDROGRAPH AT 320	1040.	12.17	111.	31.	15.	.87
+	DIVERSION TO BS320	409.	11.93	21.	6.	3.	.87
+	HYDROGRAPH AT D320	1040.	12.17	96.	25.	12.	.87
+	HYDROGRAPH AT RT320	409.	11.93	21.	6.	3.	.87
+	ROUTED TO SR320	4.	4.17	4.	4.	3.	.87
+	3 COMBINED AT C320	2461.	12.23	390.	210.	151.	2.12
+	HYDROGRAPH AT 340	1471.	12.17	186.	55.	26.	1.45
+	DIVERSION TO BS340	1471.	12.17	104.	28.	14.	1.45
	HYDROGRAPH AT D340	1199.	12.33	97.	27.	13.	1.45
	HYDROGRAPH AT RT340	1471.	12.17	104.	28.	14.	1.45
+	ROUTED TO SR340	19.	9.00	19.	19.	14.	1.45
+	3 COMBINED AT C340	3428.	12.33	501.	255.	177.	3.57

+ HYDROGRAPH AT	RT350	715.	12.20	63.	16.	8.	.96
+ ROUTED TO	RR350	659.	12.37	63.	16.	8.	.96
HYDROGRAPH AT	355	510.	12.33	70.	18.	9.	.67
+ 2 COMBINED AT	C355	1154.	12.33	132.	34.	17.	1.24
+ ROUTED TO	R355	1033.	12.60	131.	34.	17.	1.24
+ HYDROGRAPH AT	370	588.	12.30	79.	21.	10.	.67
+ ROUTED TO	R370	524.	12.63	79.	21.	10.	.67
+ HYDROGRAPH AT	360	504.	12.23	84.	25.	12.	.67
+ DIVERSION TO	BS360	504.	12.23	53.	14.	7.	.67
+ HYDROGRAPH AT	D360	306.	12.63	38.	11.	5.	.67
+ HYDROGRAPH AT	RT360	504.	12.23	53.	14.	7.	.67
+ ROUTED TO	SR360	10.	9.83	10.	10.	7.	.67
+ 5 COMBINED AT	360C	3532.	12.33	745.	326.	214.	6.14
+ HYDROGRAPH AT	395	182.	12.23	25.	7.	3.	.20
+ ROUTED TO	R395	157.	12.67	25.	7.	3.	.20
+ HYDROGRAPH AT	380	666.	12.27	98.	26.	13.	.97
+ DIVERSION TO	BS380	666.	12.27	56.	14.	7.	.97
+ HYDROGRAPH AT	D380	472.	12.57	46.	12.	6.	.97
HYDROGRAPH AT	RT380	666.	12.27	56.	14.	7.	.97
+ ROUTED TO	SR380	10.	11.33	10.	10.	7.	.97
+ 4 COMBINED AT	380C	3913.	12.60	819.	352.	229.	7.31
+ HYDROGRAPH AT	390	463.	12.03	33.	10.	5.	.24
+ DIVERSION TO	BS390	95.	11.73	6.	2.	1.	.24
+ HYDROGRAPH AT	D390	463.	12.03	30.	8.	4.	.24
+ HYDROGRAPH AT	RT390	95.	11.73	6.	2.	1.	.24
+ ROUTED TO	SR390	1.	.90	1.	1.	1.	.24
+ 2 COMBINED AT	390C	464.	12.03	31.	9.	5.	.24
+ ROUTED TO	RR390	367.	12.30	31.	9.	5.	.24
+ HYDROGRAPH AT	400	351.	12.23	47.	13.	6.	.62
+ DIVERSION TO	BS400	262.	12.10	10.	3.	1.	.62
+ HYDROGRAPH AT	D400	351.	12.23	39.	10.	5.	.62
+ HYDROGRAPH AT	RT400	262.	12.10	10.	3.	1.	.62
+ ROUTED TO	SR400	2.	8.70	2.	2.	1.	.62
+ 2 COMBINED AT	C400	353.	12.23	41.	12.	6.	.62
3 COMBINED AT	400C	4238.	12.57	885.	372.	239.	8.17
HYDROGRAPH AT	385	782.	12.23	87.	24.	12.	.65
+ DIVERSION TO	SF385	313.	12.23	35.	10.	5.	.65
+ HYDROGRAPH AT	D385	469.	12.23	52.	14.	7.	.65

+ ROUTED TO	385R	410.	12.50	52.	14.	7.	.65
+ HYDROGRAPH AT	420	752.	12.20	92.	26.	12.	.85
DIVERSION TO	BS420	269.	11.97	15.	4.	2.	.85
HYDROGRAPH AT	D420	752.	12.20	83.	22.	10.	.85
+ HYDROGRAPH AT	RT420	269.	11.97	15.	4.	2.	.85
+ ROUTED TO	SR420	13.	11.03	12.	4.	2.	.85
+ 4 COMBINED AT	420C	4904.	12.57	1014.	405.	256.	10.77
+ HYDROGRAPH AT	440	180.	12.03	12.	3.	2.	.08
+ ROUTED TO	R70	176.	12.07	12.	3.	2.	.08
+ HYDROGRAPH AT	441	16.	12.03	1.	0.	0.	.01
+ 2 COMBINED AT	C108	191.	12.07	14.	4.	2.	.09
+ DIVERSION TO	SPLIT	96.	12.07	7.	2.	1.	.09
+ HYDROGRAPH AT	DIV4	96.	12.07	7.	2.	1.	.09
+ ROUTED TO	R108	88.	12.13	7.	2.	1.	.09
+ HYDROGRAPH AT	442	102.	12.10	9.	2.	1.	.10
+ 2 COMBINED AT	C67	187.	12.10	15.	4.	2.	.19
+ DIVERSION TO	BASIN4	115.	12.10	6.	1.	1.	.19
+ HYDROGRAPH AT	DIV6	72.	12.10	10.	3.	1.	.19
HYDROGRAPH AT	RTDIV6	115.	12.10	6.	1.	1.	.19
ROUTED TO	RFDIV6	1.	11.90	1.	1.	1.	.19
+ 2 COMBINED AT	CDIV6	74.	12.10	10.	4.	2.	.19
+ HYDROGRAPH AT	443	148.	12.07	14.	4.	2.	.08
+ DIVERSION TO	WSH66	78.	11.90	12.	3.	2.	.08
+ HYDROGRAPH AT	DIV66	70.	12.07	3.	1.	0.	.08
+ ROUTED TO	R113	69.	12.07	3.	1.	0.	.08
+ 2 COMBINED AT	C114	140.	12.07	13.	4.	2.	.27
+ HYDROGRAPH AT	444	82.	12.03	5.	1.	1.	.04
+ ROUTED TO	R58	75.	12.07	5.	1.	1.	.04
+ HYDROGRAPH AT	445	296.	12.03	18.	5.	2.	.19
+ 2 COMBINED AT	C107	365.	12.03	22.	6.	3.	.23
+ ROUTED TO	R107	365.	12.07	22.	6.	3.	.23
+ HYDROGRAPH AT	RTB2	96.	12.07	7.	2.	1.	.09
+ ROUTED TO	RSPLIT	95.	12.07	7.	2.	1.	.09
+ HYDROGRAPH AT	446	65.	12.03	6.	2.	1.	.04
3 COMBINED AT	C109	520.	12.07	35.	9.	4.	.27
DIVERSION TO	WSH404	35.	11.73	8.	2.	1.	.27
+ HYDROGRAPH AT	DIV5	485.	12.07	27.	7.	3.	.27
+ ROUTED TO	R109	469.	12.10	27.	7.	3.	.27

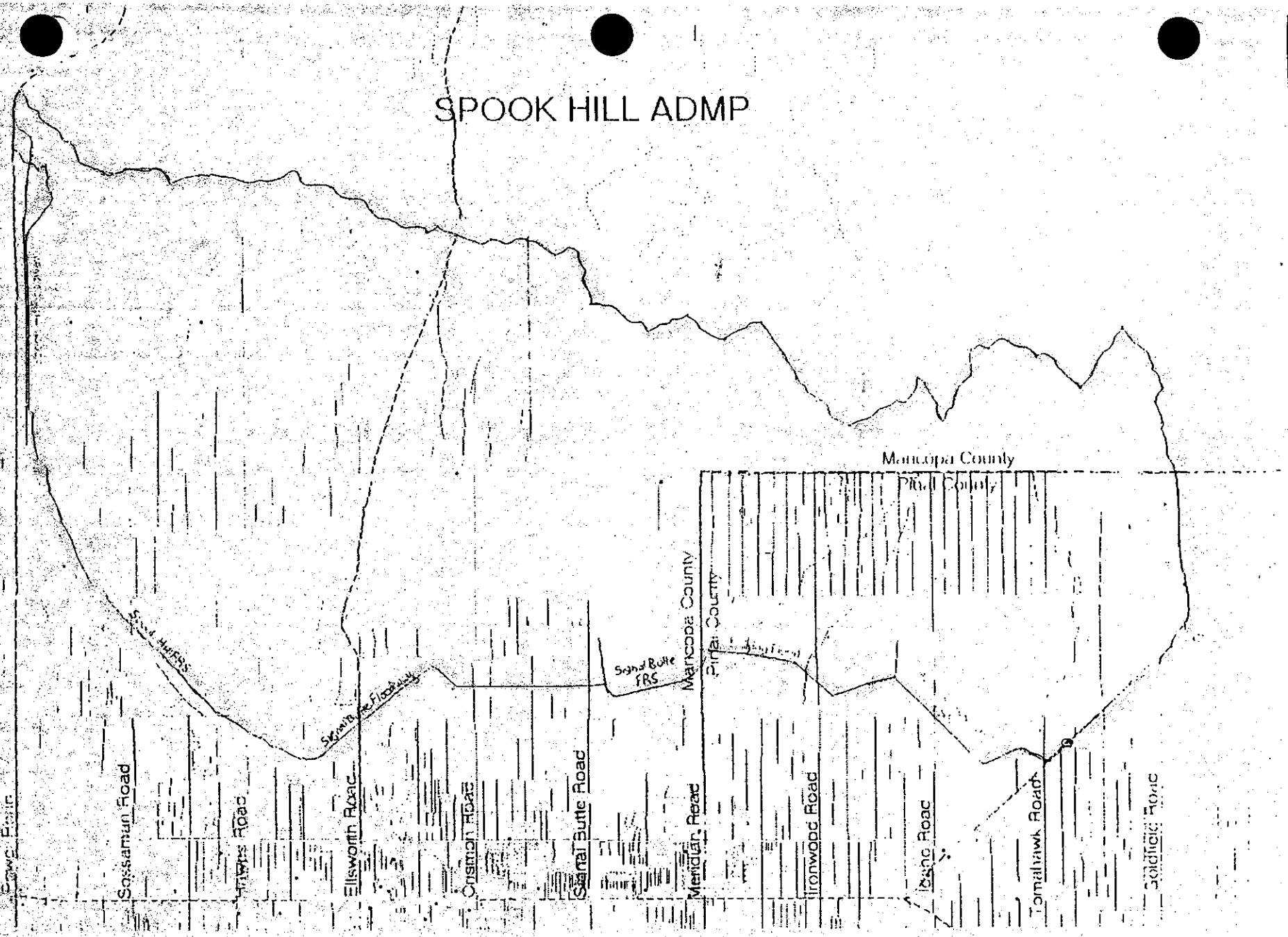
+ HYDROGRAPH AT	447	138.	12.07	12.	4.	2.	.09
+ HYDROGRAPH AT	RT404	35.	11.73	8.	2.	1.	.27
ROUTED TO	R404	35.	11.90	8.	2.	1.	.27
3 COMBINED AT	C110	635.	12.07	46.	13.	6.	.36
+ ROUTED TO	R110	632.	12.10	46.	13.	6.	.36
+ 2 COMBINED AT	C115	764.	12.10	59.	17.	8.	.63
+ ROUTED TO	R115	767.	12.10	59.	17.	8.	.63
+ HYDROGRAPH AT	448	88.	12.03	6.	2.	1.	.05
+ HYDROGRAPH AT	449	80.	12.03	5.	1.	1.	.05
+ 2 COMBINED AT	C6364	166.	12.03	11.	3.	1.	.09
+ ROUTED TO	R6364	121.	12.17	11.	3.	1.	.09
+ HYDROGRAPH AT	450	61.	12.20	6.	2.	1.	.07
+ HYDROGRAPH AT	451	18.	12.17	2.	1.	0.	.03
+ HYDROGRAPH AT	RT66	78.	11.90	12.	3.	2.	.08
+ HYDROGRAPH AT	452	62.	12.03	4.	1.	1.	.04
+ 2 COMBINED AT	C6465	140.	12.03	16.	4.	2.	.04
+ ROUTED TO	R6566	135.	12.10	16.	4.	2.	.04
+ 4 COMBINED AT	C116	325.	12.17	35.	9.	4.	.23
ROUTED TO	BASIN5	149.	12.47	35.	9.	4.	.23
+ ROUTED TO	R116	148.	12.53	35.	9.	4.	.23
+ HYDROGRAPH AT	453	62.	12.10	7.	2.	1.	.06
+ 2 COMBINED AT	C117	167.	12.50	41.	11.	5.	.29
+ 2 COMBINED AT	C118	854.	12.10	99.	28.	14.	.92
+ ROUTED TO	R118	844.	12.10	99.	28.	14.	.92
+ DIVERSION TO	BASIN6	244.	12.10	10.	2.	1.	.92
+ HYDROGRAPH AT	DIV7	600.	12.10	89.	25.	13.	.92
+ HYDROGRAPH AT	RTDIV7	244.	12.10	10.	2.	1.	.92
+ ROUTED TO	RFDIV7	1.	11.97	1.	1.	1.	.92
+ 2 COMBINED AT	CDIV7	601.	12.10	90.	26.	13.	.92
+ HYDROGRAPH AT	454	157.	12.17	21.	6.	3.	.18
+ 2 COMBINED AT	C119	749.	12.13	110.	32.	16.	1.10
+ ROUTED TO	R454	682.	12.40	110.	32.	16.	1.10
+ HYDROGRAPH AT	415	412.	12.17	55.	16.	7.	.45
+ HYDROGRAPH AT	RT385	313.	12.23	35.	10.	5.	.65
ROUTED TO	RR385	285.	12.40	35.	10.	5.	.65
3 COMBINED AT	415C	1253.	12.37	196.	56.	28.	1.55
+ ROUTED TO	R415	1225.	12.43	196.	56.	28.	1.55
+ HYDROGRAPH AT	455	1346.	12.13	142.	43.	21.	1.11

+ DIVERSION TO	BS455	1346.	12.13	137.	37.	18.	1.11
+ HYDROGRAPH AT	D455	55.	12.77	16.	6.	3.	1.11
HYDROGRAPH AT	RT455	1346.	12.13	137.	37.	18.	1.11
ROUTED TO	SR455	25.	10.47	25.	25.	18.	1.11
+ 2 COMBINED AT	C455	80.	12.77	41.	31.	21.	1.11
+ 3 COMBINED AT	455C	5914.	12.53	1217.	481.	301.	13.43
+ ROUTED TO	SR440	794.	13.83	777.	481.	300.	13.43
+ ROUTED TO	RR455	794.	14.13	777.	481.	298.	13.43
+ HYDROGRAPH AT	456	468.	12.07	35.	10.	5.	.26
+ DIVERSION TO	BASIN1	184.	12.07	8.	2.	1.	.26
+ HYDROGRAPH AT	DIV1	284.	12.07	27.	8.	4.	.26
+ DIVERSION TO	WA30	58.	12.07	10.	3.	2.	.26
+ HYDROGRAPH AT	DIV2	226.	12.07	18.	4.	2.	.26
+ ROUTED TO	R456	213.	12.13	18.	4.	2.	.26
+ HYDROGRAPH AT	457	264.	12.07	20.	5.	3.	.19
+ 2 COMBINED AT	C101	462.	12.10	38.	10.	5.	.45
+ DIVERSION TO	BASIN2	165.	12.10	7.	2.	1.	.45
+ HYDROGRAPH AT	DIV3	297.	12.10	30.	8.	4.	.45
HYDROGRAPH AT	RTDIV3	165.	12.10	7.	2.	1.	.45
ROUTED TO	RFDIV3	2.	11.90	2.	2.	1.	.45
+ 2 COMBINED AT	CDIV3	299.	12.10	32.	9.	5.	.45
+ ROUTED TO	R101	297.	12.10	32.	9.	5.	.45
+ HYDROGRAPH AT	458	356.	12.03	25.	7.	3.	.19
+ 2 COMBINED AT	C103	635.	12.07	56.	16.	8.	.64
+ ROUTED TO	R103	630.	12.07	56.	16.	8.	.64
+ HYDROGRAPH AT	RT30	58.	12.07	10.	3.	2.	.26
+ ROUTED TO	R30	57.	12.10	10.	3.	2.	.26
+ HYDROGRAPH AT	RTB1	184.	12.07	8.	2.	1.	.26
+ ROUTED TO	B1	37.	12.23	8.	2.	1.	.26
+ ROUTED TO	RB1	37.	12.30	8.	2.	1.	.26
+ 2 COMBINED AT	CDIV	86.	12.20	17.	5.	3.	.12
+ HYDROGRAPH AT	459	44.	12.03	3.	1.	0.	.03
+ 2 COMBINED AT	C52	113.	12.10	20.	6.	3.	.15
+ ROUTED TO	R52	112.	12.17	20.	6.	3.	.15
HYDROGRAPH AT	460	214.	12.07	19.	6.	3.	.14
2 COMBINED AT	C102	313.	12.07	39.	12.	6.	.29
+ ROUTED TO	BASIN3	71.	12.63	39.	12.	6.	.29
+ ROUTED TO	R3	71.	12.77	39.	12.	6.	.29

+	HYDROGRAPH AT	461	161.	12.10	17.	5.	2.	.12
+	2 COMBINED AT	C104	213.	12.10	55.	17.	8.	.41
	2 COMBINED AT	C106	835.	12.07	110.	32.	16.	1.05
	ROUTED TO	R106	797.	12.13	110.	32.	16.	1.05
+	HYDROGRAPH AT	462	538.	12.07	40.	11.	5.	.30
+	2 COMBINED AT	C56	1254.	12.10	149.	42.	21.	1.35
+	HYDROGRAPH AT	480	1050.	12.10	96.	29.	14.	.73
+	DIVERSION TO	BS480	455.	11.90	27.	8.	4.	.73
+	HYDROGRAPH AT	D480	1050.	12.10	78.	21.	10.	.73
+	HYDROGRAPH AT	RT480	455.	11.90	27.	8.	4.	.73
+	ROUTED TO	SR480	6.	3.90	6.	6.	4.	.73
+	2 COMBINED AT	C480	1056.	12.10	84.	27.	14.	.73
+	3 COMBINED AT	480C	2522.	12.10	957.	563.	341.	2.09
+	ROUTED TO	RR480	2360.	12.13	955.	563.	341.	2.09
+	HYDROGRAPH AT	500	1073.	12.27	122.	33.	16.	.93
+	2 COMBINED AT	500C	3250.	12.17	1066.	592.	355.	2.84

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

SPOOK HILL ADMP



HEC-1 Existing condition 100-Year, 24-Hour Storm. Pass Mountain Diversion with new boundaries for Sub-Basins 350 & 355

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1****************************************                                    ****************************************
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*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *                                    *   U.S. ARMY CORPS OF ENGINEERS       *
*              JUN  1998               *                                    *   HYDROLOGIC ENGINEERING CENTER      *
*            VERSION 4.1               *                                    *          609 SECOND STREET           *
*                                      *                                    *       DAVIS, CALIFORNIA 95616        *
*  RUN DATE   26APR00  TIME  09:02:58  *                                    *          (916) 756-1104              *
*                                      *                                    *                                      *
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                                        X     X  XXXXXXX   XXXXX           X
                                        X     X  X        X     X         XX
                                        X     X  X        X               X
                                        XXXXXXX  XXXX     X        XXXXX  X
                                        X     X  X        X               X
                                        X     X  X        X     X         X
                                        X     X  XXXXXXX   XXXXX         XXX

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

1                                                HEC-1 INPUT                                                    PAGE  1

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

  1           ID   EXISTING LAND USE CALCULATIONS WERE BASED ON 1 YR. FROM 11/5/99
  2           ID   FOR LAS SENDAS       AND LANDISCOR JAN.1999 AERIAL PHOTOGPRAPHS
  3           ID
  4           ID   ALL DAMS WERE ANALYZED WITH NO STORAGE BELOW PRINCIPLE SPILLWAY ELEVATIONS
  5           ID
  6           ID   A CONSERVATIVE ESTIMATE WAS USED FOR THE LOCATION OF THE CENTROID FOR
  7           ID   PRECIPITATION VALUES
  8           ID
  9           ID   ALL CHANNEL ROUTING INFORMATION WAS OBTAINED FROM MCFCD SPOOK HILL   SIGNAL
 10           ID   BUTTE        AND BULLDOG FLOODWAY PLANS
 11           ID
 12           ID
 13           ID   PASS MOUNTAIN DIVERSION ALTERNATIVE WITH REDIRECTION OF FLOW FROM NEW
 14           ID   BASIN BOUNDARY FOR SUB-BASINS 350 & 355 AND ADDITIONAL LEVEE INTO
 15           ID   SUB-BASINS 300 & 320. OFFLINE BASIN ADDED TO SUB-BASIN 240.
 16           ID   ANALYSIS PERFORMED BY WOOD/PATEL; 04/24/00 BY: MW;  FILE S24CE3.DAT
 17           ID
 18           ID   DDM MCUHP1 SPOOK HILL AMDP - EXISTING CONDITIONS MODEL - 100YR, 24HR STORM
              *DIAGRAM
 19           IT       2                    1500
 20           IO       3
 21           IN      15
 22           JD    3.81    0.01
 23           PC    .000    .002    .005    .008    .011    .014    .017    .020    .023    .026
 24           PC    .029    .032    .035    .038    .041    .044    .048    .052    .056    .060
 25           PC    .064    .068    .072    .076    .080    .085    .090    .095    .100    .105
 26           PC    .110    .115    .120    .126    .133    .140    .147    .155    .163    .172
 27           PC    .181    .191    .203    .218    .236    .257    .283    .387    .663    .707
 28           PC    .735    .758    .776    .791    .804    .815    .825    .834    .842    .849
 29           PC    .856    .863    .869    .875    .881    .887    .893    .898    .903    .908
 30           PC    .913    .918    .922    .926    .930    .934    .938    .942    .946    .950
 31           PC    .953    .956    .959    .962    .965    .968    .971    .974    .977    .980
 32           PC    .983    .986    .989    .992    .995    .998   1.000
 33           JD    3.58   10.00
 34           JD    3.43   30.00
 35           JD    3.28   60.00
 36           JD    3.22   90.00
 37           JD    3.18  120.00
 38           JD    3.14  150.00
 39           JD    3.05  300.00
 40           JD    2.97  500.00
              * DDM   ***** Updated *****

 41           KK      10
 42           KM   SUB-BASIN 10
 43           KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 44           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
 45           KM     L = 2.00  Kb = .044  Adj. Slope =  165.0
 46           BA    .702
 47           LG    .350    .320   7.600    .090  15.000
 48           UC    .421    .302
 49           UA       0       3       5       8      12      20      43      75      90      96
 50           UA     100
              * DDM   ***** Preserved *****
1                                                HEC-1 INPUT                                                    PAGE  2

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

 51           KK     R10
 52           KM   ROUTING OF FLOW FROM SUB-BASIN 10 TO SUB-BASIN 20
 53           RS      10    FLOW      -1
 54           RC    .045    .045    .045   13200    .017
 55           RX       0       1       2      14      34      46      47      48
 56           RY       4       4       4       0       0       4       4       4
              * DDM   ***** Updated *****

 57           KK      20
 58           KM   SUB-BASIN 20
 59           KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 60           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .993
 61           KM     L = 2.50  Kb = .041  Adj. Slope =   88.0
 62           BA   1.120
 63           LG    .350    .390   5.800    .190   1.000
 64           UC    .658    .454
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 65          UA       0       3       5       8      12      20      43      75      90      96
 66          UA     100
             * DDM   ***** Preserved *****

 67          KK     C20
 68          KM   HYDROGRAPH COMBINATION OF SUB-BASINS 10 AND 20
 69          HC       2
             * DDM   ***** Updated *****

 70          KK      40
 71          KM   SUB-BASIN 40
 72          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 73          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .987
 74          KM     L = 3.08  Kb = .036  Adj. Slope =  189.0
 75          BA   2.233
 76          LG    .340    .340   4.900    .280   5.000
 77          UC    .496    .264
 78          UA       0       3       5       8      12      20      43      75      90      96
 79          UA     100
             * DDM   ***** Updated *****

 80          KK      60
 81          KM   SUB-BASIN 60
 82          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 83          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .990
 84          KM     L = 4.19  Kb = .038  Adj. Slope =  209.6
 85          BA   1.746
 86          LG    .330    .350   5.800    .190   9.000
 87          UC    .596    .477
 88          UA       0       3       5       8      12      20      43      75      90      96
 89          UA     100
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE  3

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

 90          KK     60C
 91          KM   HYDROGRAPH COMBINATION FOR APACHE JUNCTION FRS
             *      1       2
 92          HC       3
             * DDM   ***** Preserved *****

 93          KK    SR60
 94          KM   APACHE JUNCTION FRS AS-BUILT PLANS 12/19/88
 95          KM   OUTLET PIPE=30"RCP; L=136.6'; INLET INV.=1783.5; OUTLET INV.=1783
 96          KM   EMERGENCY SPILLWAY ELEV.=1799.77'; PRINCIPLE SPILLWAY ELEV.=1793.5'
 97          KM   STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 100 ACRE-FEET
 98          RS       1    STOR       0
 99          SV       0       1     100     200     300     400
100          SQ       0      71      81      87    91.5      94
101          SE    83.5    93.5      96    97.7      99   99.77
             * DDM   ***** Preserved *****

102          KK     R60
103          KM        ROUTE FLOW THROUGH BULLDOG FLOODWAY FROM APACHE JUNCTION FRS
104          RS       2    FLOW      -1
105          RC    .016    .016    .016    2850    .012
106          RX       0       1       2     2.1     5.6     5.7       6       7
107          RY     3.5     3.5     3.5       0       0     3.5     3.5     3.5
             * DDM   ***** Preserved *****

108          KK    RR60
109          KM   ROUTE FLOW FROM BULLDOG FLOODWAY TO SUB-BASIN 80
110          RS       3    FLOW      -1
111          RC    .016    .016    .016    3500    .005
112          RX       0       1       2     2.1     7.1     7.2       8       9
113          RY     3.5     3.5     3.5       0       0     3.5     3.5     3.5
             * DDM   ***** Updated *****

114          KK      80
115          KM   SUB-BASIN 80
116          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
117          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
118          KM     L = 2.69  Kb = .039  Adj. Slope =  229.8
119          BA   1.475
120          LG    .330    .330   5.600    .210   4.000
121          UC    .433    .259
122          UA       0       3       5       8      12      20      43      75      90      96
123          UA     100
             * DDM   ***** Preserved *****

124          KK     80C
125          KM   HYDROGRAPH COMBINATION FOR FLOW FROM APACHE JUNCTION FRS & SUB-BASIN 80
126          HC       2   1.475
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE  4

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

127          KK     R80
128          KM   ROUTE FLOW FROM SUB-BASIN 80 TO SUB-BASIN 100
129          RS       1    FLOW      -1
130          RC    .025    .016    .025    1200    .003
131          RX       0       2       6     6.1    41.1    41.2    56.2    58.2
132          RY     5.5     4.5     4.5       0       0     4.5     4.5     5.5
             * DDM   ***** Updated *****

133          KK     100
134          KM   SUB-BASIN 100
135          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
136          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
137          KM     L = 1.94  Kb = .046  Adj. Slope =  108.0
138          BA    .484
139          LG    .320    .290   5.100    .260   3.000
140          UC    .533    .473
141          UA       0       5      16      30      65      77      84      90      94      97
142          UA     100
             * DDM   ***** Preserved *****

143          KK    100C
144          KM   HYDROGRAPH COMBINATION FOR FLOW FROM SUB-BASIN 80 & 100
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 145          HC       2
              * DDM   ***** Preserved *****

 146          KK    R100
 147          KM   ROUTE FLOW FROM SUB-BASIN 100 TO SUB-BASIN 120
 148          RS       1    FLOW      -1
 149          RC    .016    .016    .016     940    .005
 150          RX       0       1       2     2.1    52.1    52.2      53      54
 151          RY     4.5     4.5     4.5       0       0     4.5     4.5     4.5
              * DDM   ***** Updated *****

 152          KK     120
 153          KM   SUB-BASIN 120
 154          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 155          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .987
 156          KM     L = 3.07  Kb = .037  Adj. Slope =  239.0
 157          BA   2.202
 158          LG    .330    .280   6.800    .130  11.000
 159          UC    .429    .226
 160          UA       0       3       5       8      12      20      43      75      90      96
 161          UA     100
              * DDM   ***** Preserved *****

 162          KK    120C
 163          KM   HYDROGRAPH COMBINATION FOR FLOW FROM SUB-BASIN 100 & 120
 164          HC       2
              * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE  5

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


 165          KK    R120
 166          KM   ROUTE FLOW FROM SUB-BASIN 120 TO SIGNAL BUTTE FRS
 167          RS       1    FLOW      -1
 168          RC    .025    .016    .025    2100    .005
 169          RX       0       6      10    10.1    60.1    60.2    74.2    80.2
 170          RY       8       5       5       0       0       5       5       8
              * DDM   ***** Updated *****

 171          KK     140
 172          KM   SUB-BASIN 140
 173          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 174          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
 175          KM     L = 1.61  Kb = .044  Adj. Slope =  149.0
 176          BA    .598
 177          LG    .310    .280   4.200    .440   5.000
 178          UC    .421    .278
 179          UA       0       5      16      30      65      77      84      90      94      97
 180          UA     100
              * DDM   ***** Updated *****

 181          KK     150
 182          KM   SUB-BASIN 150
 183          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 184          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
 185          KM     L = 1.50  Kb = .047  Adj. Slope =  315.0
 186          BA    .408
 187          LG    .350    .360   5.100    .260   7.000
 188          UC   1.579   1.417
 189          UA       0       3       5       8      12      20      43      75      90      96
 190          UA     100
              * DDM   ***** Preserved *****

 191          KK    R150
 192          KM   ROUTING OF FLOW FROM SUB-BASIN 150 THROUGH 160
 193          RS      14    FLOW      -1
 194          RC    .045    .045    .045   10895    .019
 195          RX       0       1       2      14      34      46      47      48
 196          RY       4       4       4       0       0       4       4       4
              * DDM   ***** Updated *****

 197          KK     160
 198          KM   SUB-BASIN 160
 199          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 200          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
 201          KM     L = 2.10  Kb = .047  Adj. Slope =  129.0
 202          BA    .369
 203          LG    .340    .330   4.150    .440   1.000
 204          UC    .587    .655
 205          UA       0       3       5       8      12      20      43      75      90      96
 206          UA     100
              * DDM   ***** Updated *****
1                                        HEC-1 INPUT                                          PAGE  6

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


 207          KK     180
 208          KM   SUB-BASIN 180
 209          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 210          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
 211          KM     L = 2.42  Kb = .041  Adj. Slope =  140.0
 212          BA   1.000
 213          LG    .350    .350   4.150    .430    .000
 214          UC    .571    .403
 215          UA       0       3       5       8      12      20      43      75      90      96
 216          UA     100
              * DDM   ***** Preserved *****

 217          KK    180C
 218          KM   HYDROGRAPH COMBINATION FOR SIGNAL BUTTE FRS
 219          HC       5

 220          KK     350
 221          KM   SUB-BASIN 350
 222          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 223          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
 224          KM     L = 2.22  Kb = .042  Adj. Slope =  311.0
 225          BA    .935
 226          LG    .350    .350   4.600    .330   5.000
 227          UC    .367    .239
 228          UA       0       3       5       8      12      20      43      75      90      96
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229          UA     100
             * DDM   ***** Preserved *****

230          KK    350R
231          KM   ROUTING OF FLOW FROM SUB-BASIN 350 TO 310
232          RS       5    FLOW      -1
233          RC    .045    .045    .045    5379    .024
234          RX       0       1       2      32     102     132     133     134
235          RY       2       2       2       0       0       2       2       2
             * DDM   ***** Updated *****

236          KK     310
237          KM   SUB-BASIN 310
238          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
239          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
240          KM     L = 2.70  Kb = .045  Adj. Slope =  283.5
241          BA    .555
242          LG    .350    .350   3.910    .480    .000
243          UC    .483    .511
244          UA       0       3       5       8      12      20      43      75      90      96
245          UA     100
             * DDM   ***** Preserved *****

246          KK    C310
247          KM   HYDROGRAPH COMBINATION OF SUB-BASINS 350 & 310
248          HC       2
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE  7

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

249          KK    R310
250          KM   ROUTING OF FLOW FROM SUB-BASIN 310 TO 320
251          RS       5    FLOW      -1
252          RC    .045    .045    .045    4711    .015
253          RX       0       1       2      32     102     132     133     134
254          RY     2.5     2.5     2.5       0       0     2.5     2.5     2.5
             * DDM   ***** Updated *****

255          KK     295
256          KM   SUB-BASIN 295
257          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
258          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
259          KM     L = 1.60  Kb = .047  Adj. Slope =  131.0
260          BA    .380
261          LG    .350    .350   4.900    .280    .000
262          UC    .450    .386
263          UA       0       3       5       8      12      20      43      75      90      96
264          UA     100

265          KK    295C
266          KM   HYDROGRAPH COMBINATION OF SUB-BASINS 310 & 295
267          HC       2
             * DDM   ***** Preserved *****

268          KK    R295
269          KM   ROUTE FLOW FROM SUB-BASIN 295 TO SUB-BASIN 240
270          KM   ADDITIONAL LEVEE ADDED TO PASS MOUNTAIN DIVERSION
271          RS       2    FLOW      -1
272          RC    .035    .025    .035    1600    .005
273          RX       0      20      40      65      77     147     387     388
274          RY       8       8       2       0       0       2       8       8
             * DDM   ***** Updated *****

275          KK     240
276          KM   SUB-BASIN 240
277          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
278          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
279          KM     L = 3.50  Kb = .041  Adj. Slope =  298.6
280          BA   1.036
281          LG    .350    .350   4.600    .330   2.000
282          UC    .500    .458
283          UA       0       3       5       8      12      20      43      75      90      96
284          UA     100
             * DDM   ***** Preserved *****

285          KK    240C
286          KM   HYDROGRAPH COMBINATION OF SUB-BASINS 295 & 240
287          HC       2
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE  8

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

288          KK    R240
289          KM   ROUTE FLOW FROM SUB-BASIN 240 TO SUB-BASIN 220
290          KM   PASS MOUNTAIN DIVERSION
291          RS       2    FLOW      -1
292          RC    .035    .025    .035    2100    .005
293          RX       0      15      30      60      88     558     563     568
294          RY      10      10      10       0       0      10      10      10
             * DDM   ***** Updated *****

295          KK     210
296          KM   SUB-BASIN 210
297          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
298          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
299          KM     L = 1.84  Kb = .045  Adj. Slope =  315.0
300          BA    .583
301          LG    .350    .350   7.000    .120   7.000
302          UC    .321    .232
303          UA       0       3       5       8      12      20      43      75      90      96
304          UA     100
             * DDM   ***** Preserved *****

305          KK    R210
306          KM   ROUTING OF FLOW FROM SUB-BASIN 210 TO SUB-BASIN 220
307          RS       3    FLOW      -1
308          RC    .045    .045    .045    5484    .024
309          RX       0       1       2      14      29      41      42      43
310          RY       4       4       4       0       0       4       4       4
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                * DDM   ***** Updated *****

 311            KK     220
 312            KM   SUB-BASIN 220
 313            KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 314            KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
 315            KM     L = 1.92  Kb = .044  Adj. Slope =  315.0
 316            BA    .688
 317            LG    .350    .330   7.300    .110   1.000
 318            UC    .321    .218
 319            UA       0       3       5       8      12      20      43      75      90      96
 320            UA     100
                * DDM   ***** Preserved *****

 321            KK    220C
 322            KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 240 & 220
 323            HC       3
                * DDM   ***** Preserved *****

 324            KK    R220
 325            KM   ROUTE FLOW FROM SUB-BASIN 220 TO SUB-BASIN 200
 326            KM   PASS MOUNTAIN DIVERSION
 327            RS       1    FLOW      -1
 328            RC    .035    .025    .035    1900    .005
 329            RX       0       5      10      40      70      85      90      95
 330            RY      10      10      10       0       0      10      10      10
                * DDM   ***** Updated *****
1                                          HEC-1 INPUT                                          PAGE  9

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

 331            KK     190
 332            KM   SUB-BASIN 190
 333            KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 334            KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
 335            KM     L = 1.91  Kb = .042  Adj. Slope =  315.0
 336            BA    .918
 337            LG    .350    .390   5.800    .190   8.000
 338            UC    .321    .185
 339            UA       0       3       5       8      12      20      43      75      90      96
 340            UA     100
                * DDM   ***** Preserved *****

 341            KK    R190
 342            KM   ROUTING OF FLOW FROM SUB-BASIN 190 TO SUB-BASIN 200
 343            RS       4    FLOW      -1
 344            RC    .045    .045    .045    6948    .023
 345            RX       0       1       2      17      37      52      53      54
 346            RY       5       5       5       0       0       5       5       5
                * DDM   ***** Updated *****

 347            KK     200
 348            KM   SUB-BASIN 200
 349            KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 350            KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
 351            KM     L = 1.92  Kb = .042  Adj. Slope =  315.0
 352            BA    .918
 353            LG    .350    .390   5.800    .190   7.000
 354            UC    .321    .185
 355            UA       0       3       5       8      12      20      43      75      90      96
 356            UA     100
                * DDM   ***** Preserved *****

 357            KK    200C
 358            KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 220 & 200
 359            HC       3
                * DDM   ***** Preserved *****

 360            KK    R200
 361            KM   ROUTE FLOW FROM SUB-BASIN 200 TO SIGNAL BUTTE FRS
 362            RS       1    FLOW      -1
 363            RC    .035    .025    .035    1300    .005
 364            RX       0       1       2      17     117     132     133     134
 365            RY       5       5       5       0       0       5       5       5
                * DDM   ***** Preserved *****

 366            KK    C180
 367            KM   HYDROGRAPH COMBINATION FOR SIGNAL BUTTE FRS
                *      1       2
 368            HC       2
                * DDM   ***** Preserved *****
1                                          HEC-1 INPUT                                          PAGE 10

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

 369            KK   SR180
 370            KM   SIGNAL BUTTE FRS DATED 1/28/85
 371            KM   OUTLET PIPE=36"RCP; L= 147';  INLET INV.=1690; OUTLET INV.=1687
 372            KM   EMERGENCY SPILLWAY ELEV.=1712.4; PRINCIPLE SPILLWAY ELEV.=1701
 373            KM   STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 250 ACRE-FEET
 374            RS       1    STOR       0
 375            SV       0       1     250     500     750    1060
 376            SQ       0   106.5   125.5   137.5     146     160
 377            SE      90     101   104.5     107     109   112.4
                * DDM   ***** Preserved *****

 378            KK    R180
 379            KM   ROUTE FLOW FROM SIGNAL BUTTE FRS TO SUB-BASIN 260
 380            RS       2    FLOW      -1
 381            RC    .035    .025    .035    1500    .003
 382            RX       0       1       2    22.6    38.6    59.2      60      61
 383            RY     9.3     9.3     9.3       0       0     9.3     9.3     9.3
                * DDM   ***** Updated *****

 384            KK     260
 385            KM   SUB-BASIN 260
 386            KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 387            KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
 388            KM     L =  .81  Kb = .049  Adj. Slope =   68.0
 389            BA    .267
 390            LG    .300    .170   6.800    .160  15.000
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391          UC    .363    .215
392          UA       0       5      16      30      65      77      84      90      94      97
393          UA     100
             * DDM   ***** Preserved *****

394          KK    260C
395          KM   HYDROGRAPH COMBINATION FOR OUTFLOW OF SIGNAL BUTTE FRS & SUB-BASIN 260
396          HC       2    .267
             * DDM   ***** Preserved *****

397          KK    R260
398          KM   ROUTE FLOW FROM SUB-BASIN 260 TO SUB-BASIN 280
399          RS       2    FLOW      -1
400          RC    .035    .025    .035    2300    .003
401          RX       0       1       2    23.4    43.4    64.8      65      66
402          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
             * DDM   ***** Updated *****

403          KK     280
404          KM   SUB-BASIN 280
405          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
406          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
407          KM     L =  .77  Kb = .049  Adj. Slope =   84.0
408          BA    .304
409          LG    .300    .250   5.300    .290  15.000
410          UC    .333    .175
411          UA       0       5      16      30      65      77      84      90      94      97
412          UA     100
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE 11

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

413          KK    280C
414          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 260 & SUB-BASIN 280
415          HC       2
             * DDM   ***** Preserved *****

416          KK    R280
417          KM   ROUTE FLOW FROM SUB-BASIN 280 TO SUB-BASIN 300
418          RS       2    FLOW      -1
419          RC    .035    .025    .035    2500    .003
420          RX       0       1       2    23.4    43.4    64.8      65      66
421          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
             * DDM   ***** Updated *****

422          KK     300
423          KM   SUB-BASIN 300
424          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
425          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
426          KM     L = 1.20  Kb = .044  Adj. Slope =   92.0
427          BA    .677
428          LG    .330    .310   4.350    .420  10.000
429          UC    .421    .205
430          UA       0       5      16      30      65      77      84      90      94      97
431          UA     100
             * DDM   ***** Preserved *****

432          KK    300C
433          KM   HYDROGRAPH COMBINATION OF SUB-BASIN 280 & 300
434          HC       2
             * DDM   ***** Preserved *****

435          KK    R300
436          KM   ROUTE FLOW FROM SUB-BASIN 300 TO START OF FLOODWAY CONCRETE CHANNEL
437          RS       2    FLOW      -1
438          RC    .035    .025    .035    2200    .003
439          RX       0       1       2    23.4    55.4    76.8      77      78
440          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
             * DDM   ***** Preserved *****

441          KK   RR300
442          KM   CONTINUE TO ROUTE FLOW WITHIN CONCRETE CHANNEL TO SPOOK HILL FRS
443          RS       1    FLOW      -1
444          RC    .016    .016    .016    6050   .0146
445          RX       0       1       2     2.1    16.1    16.2      17      18
446          RY     7.5     7.5     7.5       0       0     7.5     7.5     7.5
             *       1       2
             * DDM   ***** Updated *****
             * DDM   ***** Updated *****

447          KK     320
448          KM   SUB-BASIN 320
449          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
450          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .995
451          KM     L = 1.60  Kb = .042  Adj. Slope =  106.0
452          BA    .870
1                                    HEC-1 INPUT                                          PAGE 12

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

453          LG    .310    .290   4.500    .380  15.000
454          UC    .450    .240
455          UA       0       5      16      30      65      77      84      90      94      97
456          UA     100
             * DDM   ***** Preserved *****

457          KK    D320
458          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
459          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THREE SUBDIVISIONS
460          KM   SIERRA HEIGHTS       FALCON RIDGE    & MARBLE CREEK
461          KM        MAXIMUM VOLUME DIVERSION = 12.27acre-feet
             *       1
462          DT   BS320   12.27
463          DI       0   10000
464          DQ       0   10000
             * DDM   ***** Preserved *****

465          KK   RT320
466          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
467          DR   BS320
             * DDM   ***** Preserved *****
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468          KK   SR320
469          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
470          KM   12.27 ACRE-FEETx43560/36x3600=4.1cfs
             *      1
471          RS      1    STOR       0
472          SV      0     .01    12.3
473          SQ      0     4.2     4.2
             * DDM   ***** Preserved *****

474          KK    C320
475          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
476          HC      3
             * DDM   ***** Updated *****

477          KK     340
478          KM   SUB-BASIN 340
479          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
480          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
481          KM     L = 2.40  Kb = .042  Adj. Slope =  160.0
482          BA   1.449
483          LG    .280    .280   4.150    .520  21.000
484          UC    .512    .287
485          UA      0       5      16      30      65      77      84      90      94      97
486          UA    100
             * DDM   ***** Preserved *****

487          KK    D340
488          KM       DIVERT FLOW INTO ONLINE  DETENTION BASIN
489          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THREE SUBDIVISIONS
490          KM   GRANDVIEW ESTATES    BOULDER MOUNTAIN & 33% OF MESA HIGHLANDS
491          KM       MAXIMUM VOLUME DIVERSION = 56.0 acre-feet
             *      1
492          DT   BS340      56
1                                        HEC-1 INPUT                                          PAGE 13

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

493          DI      0   10000
494          DQ      0   10000
             * DDM   ***** Preserved *****

495          KK   RT340
496          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
497          DR   BS340
             * DDM   ***** Preserved *****

498          KK   SR340
499          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
500          KM    56.0 ACRE-FEETx43560/36x3600=18.8cfs
             *      1
501          RS      1    STOR       0
502          SV      0     .01      56
503          SQ      0    18.9    18.9
             * DDM   ***** Preserved *****

504          KK    C340
505          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
506          HC      3
             * DDM   ***** Preserved *****

507          KK     355
508          KM   SUB-BASIN 355
509          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
510          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
511          KM     L = 3.00  Kb = .044  Adj. Slope =  284.0
512          BA    .694
513          LG    .340    .340   4.450    .370   4.000
514          UC    .488    .494
515          UA      0       3       5       8      12      20      43      75      90      96
516          UA    100
             * DDM   ***** Preserved *****

517          KK    R355
518          KM   ROUTING OF FLOW FROM SUB-BASIN 355 TO SUB-BASIN 360
519          RS     10    FLOW      -1
520          RC    .045    .045    .045   11535    .023
521          RX      0       1       2      14      34      46      47      48
522          RY      4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

523          KK     370
524          KM   SUB-BASIN 370
525          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
526          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
527          KM     L = 2.90  Kb = .044  Adj. Slope =  294.6
528          BA    .667
529          LG    .340    .320   4.650    .330   9.000
530          UC    .454    .455
531          UA      0       3       5       8      12      20      43      75      90      96
532          UA    100
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 14

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

533          KK    R370
534          KM   ROUTING OF FLOW FROM SUB-BASIN 370 TO 360
535          RS     10    FLOW      -1
536          RC    .045    .045    .045   11782    .021
537          RX      0       1       2      14      29      41      42      43
538          RY      4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

539          KK     360
540          KM   SUB-BASIN 360
541          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
542          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
543          KM     L = 2.10  Kb = .048  Adj. Slope =  124.0
544          BA    .670
545          LG    .260    .270   4.100    .560  20.000
546          UC    .587    .466
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547          UA       0       5      16      30      65      77      84      90      94      97
548          UA     100
             * DDM   ***** Preserved *****

549          KK    D360
550          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
551          KM   DETENTION/RETENTION BASINS LOCATED WITHIN 33% OF MESA HIGHLANDS
552          KM        MAXIMUM VOLUME DIVERSION = 28.6 acre-feet
             *      1
553          DT   BS360    28.6
554          DI       0   10000
555          DQ       0   10000
             * DDM   ***** Preserved *****

556          KK   RT360
557          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
558          DR   BS360
             * DDM   ***** Preserved *****

559          KK   SR360
560          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
561          KM    28.6 ACRE-FEETx43560/36x3600=9.6cfs
562          RS       1    STOR       0
563          SV       0     .01    28.6
564          SQ       0     9.6     9.6
             * DDM   ***** Preserved *****

565          KK    360C
566          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
567          HC       5
             * DDM   ***** Updated *****

568          KK     395
569          KM   SUB-BASIN 395
570          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
571          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
572          KM     L = 1.60  Kb = .051  Adj. Slope =  215.8
573          BA    .198
1                                    HEC-1 INPUT                                          PAGE 15

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

574          LG    .330    .320   4.900    .300  10.000
575          UC    .383    .468
576          UA       0       3       5       8      12      20      43      75      90      96
577          UA     100
             * DDM   ***** Preserved *****

578          KK    R395
579          KM   ROUTING OF FLOW FROM SUB-BASIN 395 TO SUB-BASIN 380
580          RS      13    FLOW      -1
581          RC    .045    .045    .045   11300    .021
582          RX       0       1       2      11      26      35      36      37
583          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

584          KK     380
585          KM   SUB-BASIN 380
586          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
587          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
588          KM     L = 2.20  Kb = .048  Adj. Slope =  114.0
589          BA    .972
590          LG    .300    .310   4.150    .500   7.000
591          UC    .658    .444
592          UA       0       5      16      30      65      77      84      90      94      97
593          UA     100
             * DDM   ***** Preserved *****

594          KK    D380
595          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
596          KM   DETENTION/RETENTION BASINS LOCATED WITHIN 33% OF MESA HIGHLANDS
597          KM        MAXIMUM VOLUME DIVERSION = 28.6 acre-feet
             *      1
598          DT   BS380    28.6
599          DI       0   10000
600          DQ       0   10000
             * DDM   ***** Preserved *****

601          KK   RT380
602          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
603          DR   BS380
             * DDM   ***** Preserved *****

604          KK   SR380
605          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
606          KM    28.6 ACRE-FEETx43560/36x3600=9.6cfs
607          RS       1    STOR       0
608          SV       0     .01    28.6
609          SQ       0     9.6     9.6
             * DDM   ***** Preserved *****

610          KK    380C
611          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
612          HC       4
             * DDM   ***** Updated *****
1                                    HEC-1 INPUT                                          PAGE 16

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

613          KK     390
614          KM   SUB-BASIN 390
615          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
616          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
617          KM     L =  .70  Kb = .050  Adj. Slope =  299.4
618          BA    .244
619          LG    .300    .250   4.700    .380  18.000
620          UC    .204    .107
621          UA       0       5      16      30      65      77      84      90      94      97
622          UA     100
             * DDM   ***** Preserved *****

623          KK    D390
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 624          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
 625          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THUNDER MOUNTAIN ESTATES
 626          KM        MAXIMUM VOLUME DIVERSION  = 3.5 acre-feet
              *      1
 627          DT   BS390     3.5
 628          DI       0   10000
 629          DQ       0   10000
              * DDM   ***** Preserved *****

 630          KK   RT390
 631          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
 632          DR   BS390
              * DDM   ***** Preserved *****

 633          KK   SR390
 634          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
 635          KM     3.5 ACRE-FEETx43560/36x3600=1.2cfs
 636          RS       1    STOR       0
 637          SV       0     .01     3.5
 638          SQ       0     1.2     1.2
              * DDM   ***** Preserved *****

 639          KK    390C
 640          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
 641          HC       2
              * DDM   ***** Preserved *****

 642          KK   RR390
 643          KM   FROM SUB-BASIN 390 TO SUB-BASIN 400
 644          RS       8    FLOW      -1
 645          RC    .045    .045    .045    9029    .020
 646          RX       0       1       2      14      19      31      32      33
 647          RY       4       4       4       0       0       4       4       4
              * DDM   ***** Updated *****

 648          KK     400
 649          KM   SUB-BASIN 400
 650          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 651          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
 652          KM     L = 1.64  Kb = .046  Adj. Slope =  110.0
 653          BA    .616
1                                        HEC-1 INPUT                                          PAGE 17

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

 654          LG    .320    .320   3.130    .930   6.000
 655          UC    .592    .405
 656          UA       0       5      16      30      65      77      84      90      94      97
 657          UA     100
              * DDM   ***** Preserved *****

 658          KK    D400
 659          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
 660          KM   DETENTION/RETENTION BASIN LOCATED WITHIN SAGUARO VISTA SUBDIVISION
 661          KM        MAXIMUM VOLUME DIVERSION = 5.6 ACRE-FEET
              *      1
 662          DT   BS400     5.6
 663          DI       0   10000
 664          DQ       0   10000
              * DDM   ***** Preserved *****

 665          KK   RT400
 666          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
 667          DR   BS400
              * DDM   ***** Preserved *****

 668          KK   SR400
 669          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
 670          KM     5.6 ACRE-FEETx43560/36x3600 = 2 cfs
 671          RS       1    STOR       0
 672          SV       0     .01     5.6
 673          SQ       0       2       2
              * DDM   ***** Preserved *****

 674          KK    C400
 675          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
 676          HC       2
              * DDM   ***** Preserved *****

 677          KK    400C
 678          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
 679          HC       3
              * DDM   ***** Updated *****

 680          KK     385
 681          KM   SUB-BASIN 385
 682          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 683          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
 684          KM     L = 2.30  Kb = .044  Adj. Slope =  303.0
 685          BA    .647
 686          LG    .350    .370   5.600    .210  13.000
 687          UC    .375    .311
 688          UA       0       3       5       8      12      20      43      75      90      96
 689          UA     100
              * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 18

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

 690          KK    D385
 691          KM   DIVERT FLOW INTO SUB-BASINS 415 & 420
 692          DT   SF385
 693          DI       0   10000
 694          DQ       0    4000
              * DDM   ***** Preserved *****

 695          KK    385R
 696          KM   ROUTING OF FLOW DIVERSION FROM SUB-BASIN 385 INTO SUB-BASIN 420
 697          RS       8    FLOW      -1
 698          RC    .045    .045    .045   10233    .022
 699          RX       0       1       2      14      19      31      32      33
 700          RY       4       4       4       0       0       4       4       4
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                * DDM   ***** Updated *****

 701            KK     420
 702            KM   SUB-BASIN 420
 703            KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 704            KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .995
 705            KM     L = 1.91  Kb = .042  Adj. Slope =  120.0
 706            BA    .849
 707            LG    .310    .270   3.880    .580  12.000
 708            UC    .512    .325
 709            UA       0       5      16      30      65      77      84      90      94      97
 710            UA     100
                * DDM   ***** Preserved *****

 711            KK    D420
 712            KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
 713            KM   DETENTION/RETENTION BASINS LOCATED WITHIN GRAY FOX SUBDIVISION
 714            KM        MAXIMUM VOLUME DIVERSION = 8.65 acre-feet
                *      1
 715            DT   BS420    8.65
 716            DI       0   10000
 717            DQ       0   10000
                * DDM   ***** Preserved *****

 718            KK   RT420
 719            KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
 720            DR   BS420
                * DDM   ***** Preserved *****

 721            KK   SR420
 722            KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
 723            KM   38.55 ACRE-FEETx43560/36x3600=13cfs
 724            RS       1    STOR       0
 725            SV       0     .01   38.55
 726            SQ       0      13      13
                * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 19

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

 727            KK    420C
 728            KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
 729            HC       4   10.77
                * DDM   ***** Updated *****

 730            KK     440
 731            KM   SUB-BASIN 440
 732            KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 733            KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
 734            KM     L =  .40  Kb = .039  Adj. Slope =  315.0
 735            BA    .080
 736            LG    .190    .380   6.400    .140  13.000
 737            UC    .129    .077
 738            UA       0       3       5       8      12      20      43      75      90      96
 739            UA     100
                * DDM   ***** Preserved *****

 740            KK     R70
 741            KM   ROUTE FLOW FROM SUB-BASIN 440 TO C108
 742            RS       1    FLOW      -1
 743            RC     .05    .035     .05    2250     .08
 744            RX    1000    1025    1050    1070    1075    1095    1120    1145
 745            RY      30    22.9    15.7      10      10    15.7    22.9      30
                * DDM   ***** Updated *****

 746            KK     441
 747            KM   SUB-BASIN 441
 748            KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 749            KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
 750            KM     L =  .28  Kb = .069  Adj. Slope =  315.0
 751            BA    .010
 752            LG    .300    .250   5.600    .220   5.000
 753            UC    .150    .225
 754            UA       0       5      16      30      65      77      84      90      94      97
 755            UA     100
                * DDM   ***** Preserved *****

 756            KK    C108
 757            KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 440 & 441
 758            HC       2
                * DDM   ***** Preserved *****

 759            KK    DIV4
 760            KM        SPLIT FLOW WITH TWO 42 INCH PIPES TO WEST AND SOUTH
                *      1
 761            DT   SPLIT
 762            DI       0      14      40      82     120     154     180
 763            DQ       0       7      20      41      60      77      90
                * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 20

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

 764            KK    R108
 765            KM        ROUTE FLOW FROM SUB-BASIN C108 TO C67
 766            RS       2    FLOW      -1
 767            RC     .05    .035     .05    3200      .1
 768            RX    1000    1025    1050    1070    1075    1095    1120    1145
 769            RY      30    22.9    15.7      10      10    15.7    22.9      30
                * DDM   ***** Updated *****

 770            KK     442
 771            KM   SUB-BASIN 442
 772            KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 773            KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
 774            KM     L =  .83  Kb = .055  Adj. Slope =  274.2
 775            BA    .100
 776            LG    .300    .270   3.290    .770   5.000
 777            UC    .258    .264
 778            UA       0       5      16      30      65      77      84      90      94      97
 779            UA     100
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            * DDM   ***** Preserved *****

 780        KK     C67
 781        KM   COMBINE FLOW FROM SUB-BASIN 442 & DIV4
 782        HC       2
            * DDM   ***** Preserved *****

 783        KK    DIV6
 784        KM        OFFLINE BASIN WITH 25 FOOT WEIR SET AT 2.5 FEET ABOVE BOTTOM OF CHANNEL
 785        KM        FLOW CONTINUES BEYOND BASIN THROUGH 2-30" PIPES
            *      1
 786        DT  BASIN4
 787        DI       0      10      32      44    79.9   132.5     198   272.9   356.8
 788        DQ       0       0       0       0    23.9    67.5     124   190.9   266.8
            * DDM   ***** Preserved *****

 789        KK  RTDIV6
 790        KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
 791        DR  BASIN4
            * DDM   ***** Preserved *****

 792        KK  RFDIV6
 793        KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
 794        KM     3.3 ACRE-FEETx43560/36x3600=1.1cfs
            *      1
 795        RS       1    STOR       0
 796        SV       0     .01     3.3
 797        SQ       0     1.1     1.1
            * DDM   ***** Preserved *****

 798        KK   CDIV6
 799        KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
 800        HC       2
            * DDM   ***** Updated *****
1                                    HEC-1 INPUT                                          PAGE 21

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

 801        KK     443
 802        KM   SUB-BASIN 443
 803        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 804        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
 805        KM     L =  .71  Kb = .050  Adj. Slope =  315.0
 806        BA    .080
 807        LG    .250    .190   8.000    .080  10.000
 808        UC    .196    .194
 809        UA       0       5      16      30      65      77      84      90      94      97
 810        UA     100
            * DDM   ***** Preserved *****

 811        KK   DIV66
 812        KM        DIVERT FLOW INTO 3 NATURAL WASHES WITH ONE 24" PIPE IN EACH WASH.
 813        KM        EACH PIPE CAPACITY BASED ON 4 FEET OF HEAD
 814        DT   WSH66
 815        DI       0      78     100     200
 816        DQ       0      78      78      78
            * DDM   ***** Preserved *****

 817        KK    R113
 818        KM        ROUTE FLOW FROM C113 TO C114
 819        RS       1    FLOW      -1
 820        RC    .019    .019    .019    1300    .029
 821        RX    1000    1004    1008    1012    1018    1022    1026    1030
 822        RY      17   15.33   12.67      10      10   12.67   15.33      17
            * DDM   ***** Preserved *****

 823        KK    C114
 824        KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 67 AND C113
 825        HC       2
            * DDM   ***** Updated *****

 826        KK     444
 827        KM   SUB-BASIN 444
 828        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 829        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
 830        KM     L =  .33  Kb = .034  Adj. Slope =  315.0
 831        BA    .040
 832        LG    .130    .350   4.450    .320   1.000
 833        UC    .112    .084
 834        UA       0       3       5       8      12      20      43      75      90      96
 835        UA     100
            * DDM   ***** Preserved *****

 836        KK     R58
 837        KM   ROUTE FLOW FROM SUB-BASIN 444 TO C107
 838        RS       1    FLOW      -1
 839        RC     .05    .035     .05    2370   .0516
 840        RX    1000    1010    1020    1050    1055    1085    1095    1105
 841        RY      19      18      17      10      10      17      18      19
            * DDM   ***** Updated *****
1                                    HEC-1 INPUT                                          PAGE 22

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

 842        KK     445
 843        KM   SUB-BASIN 445
 844        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 845        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
 846        KM     L =  .82  Kb = .036  Adj. Slope =  315.0
 847        BA    .190
 848        LG    .170    .320   3.470    .590   3.000
 849        UC    .192    .130
 850        UA       0       5      16      30      65      77      84      90      94      97
 851        UA     100
            * DDM   ***** Preserved *****

 852        KK    C107
 853        KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 444 & 445
 854        HC       2
            * DDM   ***** Preserved *****
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855          KK    R107
856          KM        ROUTE FLOW FROM C107 TO C109
857          RS       1    FLOW      -1
858          RC     .05    .035     .05     700    .0516
859          RX    1000    1010    1020    1050    1055    1085    1095    1105
860          RY      19      18      17      10      10      17      18      19
             * DDM   ***** Preserved *****

861          KK    RTB2
862          KM        RETRIEVE DIVERTED FLOW FROM BASIN 1
             *      1
863          DR   SPLIT
             * DDM   ***** Preserved *****

864          KK  RSPLIT
865          KM        ROUTE FLOW FROM SPLIT TO C109
866          RS       1    FLOW      -1
867          RC     .05    .035     .05     800     .05
868          RX    1000    1025    1050    1070    1075    1095    1120    1145
869          RY      30    22.9    15.7      10      10    15.7    22.9      30
             * DDM   ***** Updated *****

870          KK     446
871          KM   SUB-BASIN 446
872          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
873          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
874          KM     L =  .46  Kb = .061  Adj. Slope =  303.9
875          BA    .040
876          LG    .270    .250   4.500    .400  19.000
877          UC    .183    .189
878          UA       0       5      16      30      65      77      84      90      94      97
879          UA     100
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE 23

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

880          KK    C109
881          KM        COMBINE HYDROGRAPHS FROM COMBINES C107 AND C108
882          HC       3
             * DDM   ***** Preserved *****

883          KK    DIV5
884          KM        DIVERT FLOW INTO WASHES TOWARDS WEST
885          KM        DIVERSION THROUGH 36" PIPE WITH 3 FEET OF HEAD
             *      1
886          DT  WSH404
887          DI       0    40.7    71.2   121.6     190     276   379.4   500.6
888          DQ       0      35      35      35      35      35      35      35
             * DDM   ***** Preserved *****

889          KK    R109
890          KM        ROUTE FLOW FROM C109 TO C110
891          RS       1    FLOW      -1
892          RC    .019    .019    .019    3080     .05
893          RX    1000    1005    1010    1015    1025    1030    1035    1040
894          RY   13.75    12.5   11.25      10      10   11.25    12.5   13.75
             * DDM   ***** Updated *****

895          KK     447
896          KM   SUB-BASIN 447
897          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
898          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
899          KM     L =  .49  Kb = .056  Adj. Slope =  221.0
900          BA    .090
901          LG    .250    .270   3.350    .870  30.000
902          UC    .208    .145
903          UA       0       5      16      30      65      77      84      90      94      97
904          UA     100
             * DDM   ***** Preserved *****

905          KK   RT404
906          KM        RETRIEVE DIVERTED FLOW FOR WASH 109
907          DR  WSH404
             * DDM   ***** Preserved *****

908          KK    R404
909          KM        ROUTE FLOW FROM C110 TO C110
910          RS       5    FLOW      -1
911          RC    .019    .019    .019    3540     .03
912          RX    1000    1012    1016    1020    1025    1029    1033    1045
913          RY      15      12      11      10      10      11      12      15
             * DDM   ***** Preserved *****

914          KK    C110
915          KM   COMBINE HYDROGRAPHS FROM SUB-BASIN 447 AND R404
916          HC       3
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE 24

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

917          KK    R110
918          KM        ROUTE FLOW FROM C110 TO C115
919          RS       1    FLOW      -1
920          RC    .019    .019    .019     580   .0291
921          RX    1000    1012    1016    1020    1035    1039    1043    1055
922          RY      15      12      11      10      10      11      12      15
             * DDM   ***** Preserved *****

923          KK    C115
924          KM        COMBINE HYDROGRAPHS FROM C114 AND C110
925          HC       2
             * DDM   ***** Preserved *****

926          KK    R115
927          KM        ROUTE FLOW FROM C115 TO C119
928          RS       1    FLOW      -1
929          RC    .019    .019    .019    2125    .029
930          RC    .019    .019    .019     580   .0291
931          RX    1000    1012    1016    1020    1035    1039    1043    1055
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932          RY      15      12      11      10      10      11      12      15
             * DDM   ***** Updated *****

933          KK     448
934          KM   SUB-BASIN 448
935          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
936          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
937          KM     L =  .36  Kb = .042  Adj. Slope =  315.0
938          BA    .045
939          LG    .170    .310   4.200    .390  11.000
940          UC    .133    .102
941          UA       0       5      16      30      65      77      84      90      94      97
942          UA     100
             * DDM   ***** Updated *****

943          KK     449
944          KM   SUB-BASIN 449
945          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
946          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
947          KM     L =  .40  Kb = .054  Adj. Slope =  315.0
948          BA    .050
949          LG    .260    .280   3.500    .640   6.000
950          UC    .167    .134
951          UA       0       5      16      30      65      77      84      90      94      97
952          UA     100
             * DDM   ***** Preserved *****

953          KK   C6364
954          KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 448 & 449
955          HC       2
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE 25

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

956          KK   R6364
957          KM   ROUTE FLOW FROM C116 AND SUB-BASINS 448 AND 449
958          RS       4    FLOW      -1
959          RC     .05    .035     .05    4375   .0333
960          RX    1000    1027    1053    1080    1090    1117    1143    1170
961          RY      15   13.33   11.67      10      10   11.67   13.33      15
             * DDM   ***** Updated *****

962          KK     450
963          KM   SUB-BASIN 450
964          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
965          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
966          KM     L =  .85  Kb = .057  Adj. Slope =  210.5
967          BA    .070
968          LG    .340    .350   3.630    .570   4.000
969          UC    .296    .383
970          UA       0       3       5       8      12      20      43      75      90      96
971          UA     100
             * DDM   ***** Updated *****

972          KK     451
973          KM   SUB-BASIN 451
974          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
975          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
976          KM     L =  .57  Kb = .063  Adj. Slope =  175.0
977          BA    .025
978          LG    .340    .340   3.290    .750   3.000
979          UC    .271    .453
980          UA       0       3       5       8      12      20      43      75      90      96
981          UA     100
             * DDM   ***** Preserved *****

982          KK    RT66
983          KM       RETRIEVE DIVERTED FLOW FROM SUB-BASIN 66
984          DR   WSH66
             * DDM   ***** Updated *****

985          KK     452
986          KM   SUB-BASIN 452
987          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
988          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
989          KM     L =  .43  Kb = .055  Adj. Slope =  315.0
990          BA    .040
991          LG    .260    .280   3.700    .550   9.000
992          UC    .171    .166
993          UA       0       5      16      30      65      77      84      90      94      97
994          UA     100
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE 26

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

995          KK   C6465
996          KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 443 AND 452
997          HC       2
             * DDM   ***** Preserved *****

998          KK   R6566
999          KM       ROUTE FLOW FROM DIVERSIONS 65 AND 66 TO C116
1000         RS       2    FLOW      -1
1001         RC     .05    .035     .05    2435   .0282
1002         RX    1000    1045    1090    1150    1160    1220    1265    1310
1003         RY      25      23      20      10      10      20      23      25
             * DDM   ***** Preserved *****

1004         KK    C116
1005         KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 450 & 451 AND R6364 & R6465
1006         HC       4
             * DDM   ***** Preserved *****

1007         KK  BASIN5
1008         KM       RESERVOIR WITHIN PARCEL 31      2-48 INCH PIPES AT OUTFALL
1009         KM       BASIN 5 FEET DEEP
1010         RS       1    ELEV       0
1011         SV       0     4.5     9.9
1012         SQ       0      69     190
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1013        SE       0     2.5       5
            * DDM   ***** Preserved *****

1014        KK    R116
1015        KM   ROUTE FLOW FROM C116 TO C117
1016        RS       2    FLOW      -1
1017        RC     .05    .035     .05    1300   .0333
1018        RX    1000    1100    1200    1300    1320    1420    1520    1620
1019        RY      13      12      11      10      10      11      12      13
            * DDM   ***** Updated *****

1020        KK     453
1021        KM   SUB-BASIN 453
1022        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1023        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
1024        KM     L =  .58  Kb = .058  Adj. Slope =  138.0
1025        BA    .060
1026        LG    .290    .300   3.290    .820  18.000
1027        UC    .275    .284
1028        UA       0       5      16      30      65      77      84      90      94      97
1029        UA     100
            * DDM   ***** Preserved *****

1030        KK    C117
1031        KM   COMBINE HYDROGRAPHS FROM SUB-BASIN 453 AND R116
1032        HC       2
            * DDM   ***** Preserved *****
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LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1033        KK    C118
1034        KM   COMBINE HYDROGRAPHS FROM R115 AND C117
1035        HC       2
            * DDM   ***** Preserved *****

1036        KK    R118
1037        KM        ROUTE FLOW FROM C118 TO  DIV7
1038        RS       1    FLOW      -1
1039        RC    .019    .019    .019    1500    .024
1040        RX    1000    1012    1016    1020    1035    1039    1043    1055
1041        RY      15      12      11      10      10      11      12      15
            * DDM   ***** Preserved *****

1042        KK    DIV7
1043        KM        OFFLINE BASIN AT NORTH MOUNTAIN RIDGE   FLOWS ENTER BASIN OVER
1044        KM        30' WEIR SET AT 5.3' ABOVE THE CHANNEL BOTTOM
            *      1
1045        DT  BASIN6
1046        DI       0     363     487     563     645     844
1047        DQ       0       3      47      83     125     244
            * DDM   ***** Preserved *****

1048        KK  RTDIV7
1049        KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
1050        DR  BASIN6
            * DDM   ***** Preserved *****

1051        KK  RFDIV7
1052        KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
1053        KM     3.6 ACRE-FEETx43560/36x3600=1.2cfs
1054        RS       1    STOR       0
1055        SV       0     .01     3.6
1056        SQ       0     1.2     1.2
            * DDM   ***** Preserved *****

1057        KK   CDIV7
1058        KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
1059        HC       2
            * DDM   ***** Updated *****

1060        KK     454
1061        KM   SUB-BASIN 454
1062        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1063        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1064        KM     L = 1.23  Kb = .051  Adj. Slope =  163.0
1065        BA    .180
1066        LG    .300    .310   3.780    .560  14.000
1067        UC    .379    .395
1068        UA       0       5      16      30      65      77      84      90      94      97
1069        UA     100
            * DDM   ***** Preserved *****
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LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1070        KK    C119
1071        KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 454 AND C119
            *      1       2
1072        HC       2
            * DDM   ***** Preserved *****

1073        KK    R454
1074        KM   ROUTE FLOW FROM C119 TO 415C
1075        RS       8    FLOW      -1
1076        RC    .045    .035    .045    6000    .005
1077        RX    1000    1010    1020    1036    1041    1057    1067    1077
1078        RY      15    14.5      14      10      10      14    14.5      15
            * DDM   ***** Updated *****

1079        KK     415
1080        KM   SUB-BASIN 415
1081        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1082        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
1083        KM     L = 2.10  Kb = .046  Adj. Slope =  266.0
1084        BA    .448
1085        LG    .310    .270   4.250    .480  15.000
1086        UC    .404    .387
1087        UA       0       5      16      30      65      77      84      90      94      97
1088        UA     100
            * DDM   ***** Preserved *****
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1089          KK   RT385
1090          KM   RETRIEVE FLOW FROM DIVERSION OF SUB-BASIN 385 INTO SUB-BASIN 415
1091          DR   SF385
              * DDM   ***** Preserved *****

1092          KK   RR385
1093          KM   ROUTING OF SPLIT FLOW FROM SUB-BASIN 385 TO SUB-BASIN 415
1094          RS       5    FLOW      -1
1095          RC    .045    .045    .045    5878    .024
1096          RX       0       1       2      14      19      31      32      33
1097          RY       4       4       4       0       0       4       4       4
              * DDM   ***** Preserved *****

1098          KK    415C
1099          KM   HYDROGRAPH COMBINATION OF SUB-BASINS 415, R454 & SPLIT FLOW FROM 385
1100          HC       3
              * DDM   ***** Preserved *****

1101          KK    R415
1102          KM   ROUTING OF FLOW FROM 415C TO 455C
1103          RS       3    FLOW      -1
1104          RC    .045    .045    .045    3900    .021
1105          RX       0       1       2      14      44      56      57      58
1106          RY       4       4       4       0       0       4       4       4
              * DDM   ***** Updated *****
1                                        HEC-1 INPUT                                                    PAGE 29

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


1107          KK     455
1108          KM   SUB-BASIN 455
1109          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1110          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .993
1111          KM     L = 1.70  Kb = .041  Adj. Slope =  146.0
1112          BA   1.111
1113          LG    .270    .280   3.700    .640  24.000
1114          UC    .421    .204
1115          UA       0       5      16      30      65      77      84      90      94      97
1116          UA     100
              * DDM   ***** Preserved *****

1117          KK    D455
1118          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
1119          KM   DETENTION/RETENTION BASINS LOCATED WITHIN LAS SENDAS ADDENDUM III
1120          KM   FOR BASIN #: 30      34      43      47&58
1121          KM        MAXIMUM VOLUME DIVERSION = 74.1 acre-feet
              *      1
1122          DT   BS455    74.1
1123          DI       0   10000
1124          DQ       0   10000
              * DDM   ***** Preserved *****

1125          KK   RT455
1126          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
1127          DR   BS455
              * DDM   ***** Preserved *****

1128          KK   SR455
1129          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
1130          KM    74.1 ACRE-FEETx43560/36x3600=25cfs
1131          RS       1    STOR       0
1132          SV       0     .01    74.1
1133          SQ       0      25      25
              * DDM   ***** Preserved *****

1134          KK    C455
1135          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 455 AND DIVERTED BASIN STORAGE OF 455
1136          HC       2
              * DDM   ***** Preserved *****

1137          KK    455C
1138          KM  HYDROGRAPH COMBINATION OF 420C, R415 AND C455
              *      1       2
1139          HC       3
              * DDM   ***** Preserved *****

1140          KK   SR440
1141          KM   SPOOK HILL FRS PLANS DATED 6/15/77
1142          KM   OUTLET PIPE=7'x7.5'RCBC; L=70 INLET INV.=1566; OUTLET INV.=1566
1143          KM   EMERGENCY SPILLWAY ELEV.=1582; PRINCIPLE SPILLWAY ELEV.=1577.5
1144          KM   STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 200 ACRE-FEET
1145          RS       1    STOR       0
1146          SV       0      10     100     300     500     680
1                                        HEC-1 INPUT                                                    PAGE 30

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

1147          SQ       0     640     720     780     825     860
1148          SE      66    77.5      79    80.2    81.2      82
              * DDM   ***** Preserved *****

1149          KK   RR455
1150          KM   ROUTE FLOW FROM SPOOK HILL FRS TO SUB-BASIN 462
1151          RS       9    FLOW      -1
1152          RC    .035    .025    .035    9200    .002
1153          RX       0       1       2      28      58      84      85      86
1154          RY    13.5    13.5    13.5       0       0    13.5    13.5    13.5
              * DDM   ***** Updated *****

1155          KK     456
1156          KM   SUB-BASIN 456
1157          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1158          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
1159          KM     L =  .94  Kb = .045  Adj. Slope =  315.0
1160          BA    .260
1161          LG    .300    .380   5.600    .200  12.000
1162          UC    .217    .139
1163          UA       0       5      16      30      65      77      84      90      94      97
1164          UA     100
              * DDM   ***** Preserved *****
```

```
1165        KK    DIV1
1166        KM        DIVERT FLOW INTO OFFLINE DETENTION BASIN
1167        KM        WEIR FOR BASIN SET AT 4 FEET ABOVE CHANNEL BOTTOM
            *      1
1168        DT  BASIN1
1169        DI       0    11.1   127.9   234.4   577.7   789.9  1025.5  1280.9  1555.7
1170        DQ       0       0       0    47.7     248   381.8   533.6   701.5     884
            * DDM   ***** Preserved *****

1171        KK    DIV2
1172        KM        SPLIT OUT FLOW FOR WASHES THAT FLOW TO THE SOUTH FROM
1173        KM        WASHES THAT DRAIN TO THE WES, SOUTHERN WASHES FED BY 30" & 24" PIPE
1174        DT    WA30
1175        DI       0    11.1   127.9   189.6   329.7     408   491.9   579.4   671.7
1176        DQ       0    11.1    38.4    48.2      63    69.5      76      81      86
            * DDM   ***** Preserved *****

1177        KK    R456
1178        KM        ROUTE FLOW FROM SUB-BASIN 51 TO C101
1179        RS       2    FLOW      -1
1180        RC     .05    .035     .05    3800    .044
1181        RX    1000    1010    1020    1036    1041    1057    1067    1077
1182        RY   14.88   14.44      14      10      10      14   14.44   14.88
            * DDM   ***** Updated *****

1183        KK     457
1184        KM   SUB-BASIN 457
1185        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1186        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1187        KM    L = 1.01  Kb = .045  Adj. Slope =  308.8
1188        BA    .190
```



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

1189        LG    .270    .330   3.950    .460   6.000
1190        UC    .237    .195
1191        UA       0       5      16      30      65      77      84      90      94      97
1192        UA     100
            * DDM   ***** Preserved *****

1193        KK    C101
1194        KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 50 AND 51
1195        HC       2
            * DDM   ***** Preserved *****

1196        KK    DIV3
1197        KM        RESERVOIR AT THE EDGE OF THE PROPERTY   FLOW FROM CHANNEL
1198        KM        DIVERTED  INTO OFFLINE BASIN A 25' WEIR SET AT ELEVATION 1808 FT
            *      1
1199        DT  BASIN2
1200        DI       0      36      70     110     180   313.5     402   500.9
1201        DQ       0       0       0       0       0    67.5     124   190.9
            * DDM   ***** Preserved *****

1202        KK  RTDIV3
1203        KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
1204        DR  BASIN2
            * DDM   ***** Preserved *****

1205        KK  RFDIV3
1206        KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
1207        KM     5.0 ACRE-FEETx43560/36x3600=1.7cfs
1208        RS       1    STOR       0
1209        SV       0     .01       5
1210        SQ       0     1.7     1.7
            * DDM   ***** Preserved *****

1211        KK   CDIV3
1212        KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF.
1213        HC       2
            * DDM   ***** Preserved *****

1214        KK    R101
1215        KM        ROUTE FLOW FROM SUBBASIN C101 TO C103
1216        RS       1    FLOW      -1
1217        RC     .05    .035     .05    1450     .05
1218        RX    1000    1010    1020    1036    1041    1057    1067    1077
1219        RY      15    14.5      14      10      10      14    14.5      15
            * DDM   ***** Updated *****

1220        KK     458
1221        KM   SUB-BASIN 458
1222        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1223        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1224        KM     L =  .76  Kb = .048  Adj. Slope =  299.0
1225        BA    .190
1226        LG    .290    .330   5.800    .190   6.000
1227        UC    .204    .131
1228        UA       0       5      16      30      65      77      84      90      94      97
```



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

1229        UA     100
            * DDM   ***** Preserved *****

1230        KK    C103
1231        KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 55 AND C101
1232        HC       2
            * DDM   ***** Preserved *****

1233        KK    R103
1234        KM        ROUTE FLOW FROM SUBBASIN C103 TO C106
1235        RS       1    FLOW      -1
1236        RC     .05    .035     .05     900     .03
1237        RX    1000    1010    1020    1030    1050    1060    1070    1080
1238        RY   13.16   12.83    12.5      10      10    12.5   12.83   13.16
            * DDM   ***** Preserved *****

1239        KK    RT30
1240        KM        RETRIEVE DIVERTED FLOW FOR WASH BELOW 30 INCH PIPE
1241        DR    WA30
```

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                * DDM   ***** Preserved *****

1242            KK     R30
1243            KM        ROUTE FLOW FROM WASH DIVERSION TO COMBINE C52
1244            RS       1    FLOW      -1
1245            RC     .05    .035     .05    1630     .05
1246            RX    1000    1010    1020    1036    1041    1057    1067    1077
1247            RY      15    14.5      14      10      10      14    14.5      15
                * DDM   ***** Preserved *****

1248            KK    RTB1
1249            KM        RETRIEVE DIVERTED FLOW FROM BASIN 1
                *      1       2
1250            DR  BASIN1
                * DDM   ***** Preserved *****

1251            KK      B1
1252            KM        ROUTE FLOW THROUGH OFFLINE DETENTION BASIN
1253            KM        FLOW OUTLETS THROUGH A 30 INCH OUTLET PIPE
                *      1       2
1254            RS       1    ELEV       0
1255            SV              .7     1.4     2.3     2.7     3.2
1256            SQ       0       5      16      28    32.5      37
1257            SE       0       1       2       3     3.5       4
                * DDM   ***** Preserved *****

1258            KK     RB1
1259            KM        ROUTE FLOW FROM BASIN DIVERSION TO COMBINE C52
1260            RS       2    FLOW      -1
1261            RC     .05    .035     .05    1720     .05
1262            RX    1000    1010    1020    1036    1041    1057    1067    1077
1263            RY      15    14.5      14      10      10      14    14.5      15
                * DDM   ***** Preserved *****
1                                         HEC-1 INPUT                                                    PAGE 33

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


1264            KK    CDIV
1265            KM        COMBINE FLOWS FROM WA30 AND BASIN 1
1266            HC       2     .12
                * DDM   ***** Updated *****

1267            KK     459
1268            KM   SUB-BASIN 459
1269            KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1270            KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
1271            KM     L =  .35  Kb = .052  Adj. Slope =  251.6
1272            BA    .030
1273            LG    .220    .300   3.330    .710   8.000
1274            UC    .162    .157
1275            UA       0       5      16      30      65      77      84      90      94      97
1276            UA     100
                * DDM   ***** Preserved *****

1277            KK     C52
1278            KM        COMBINE FLOWS FROM SUB-BASIN 52 WA30 AND BASIN 1
1279            HC       2
                * DDM   ***** Preserved *****

1280            KK     R52
1281            KM        ROUTE FLOW FROM SUBBASIN 52 TO C102
1282            RS       2    FLOW      -1
1283            RC     .05    .035     .05    2000     .05
1284            RX    1000    1010    1020    1036    1041    1057    1067    1077
1285            RY      15    14.5      14      10      10      14    14.5      15
                * DDM   ***** Updated *****

1286            KK     460
1287            KM   SUB-BASIN 460
1288            KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1289            KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1290            KM     L =  .62  Kb = .058  Adj. Slope =  194.0
1291            BA    .140
1292            LG    .250    .260   3.740    .690  27.000
1293            UC    .242    .160
1294            UA       0       5      16      30      65      77      84      90      94      97
1295            UA     100
                * DDM   ***** Preserved *****

1296            KK    C102
1297            KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 52 AND 53
1298            HC       2
                * DDM   ***** Preserved *****

1299            KK  BASIN3
1300            KM        RESERVOIR AT CLUBHOUSE LOCATION 1-30 INCH PIPE AT OUTFALL
1301            KM        BOTTOM OF BASIN AT 6 FEET ABOVE 1795 ELEVATION
1302            RS       1    ELEV       0
1303            SA       0       0       0       0     .34    1.59    1.81    1.96    2.13     2.3
                *      0       0       0       0    1.14    3.25    5.52    9.23
1304            SQ       0      22      45    47.4      48      51      57      62      67      73
1                                         HEC-1 INPUT                                                    PAGE 34

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

1305            SE    1795  1797.5    1800  1800.4  1800.5    1801    1802    1803    1804  1805.5
                * DDM   ***** Preserved *****

1306            KK      R3
1307            KM        ROUTE FLOW FROM C102 to C106
1308            RS       4    FLOW      -1
1309            RC     .05     .03     .05    2750   .0375
1310            RX    1000    1010    1020    1052    1086    1118    1128    1138
1311            RY    19.2    18.4      18      10      10      18    18.4    19.2
                * DDM   ***** Updated *****

1312            KK     461
1313            KM   SUB-BASIN 461
1314            KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1315            KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1316            KM     L =  .83  Kb = .052  Adj. Slope =  181.0
1317            BA    .120
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1318          LG    .270    .250   4.250    .450  21.000
1319          UC    .271    .250
1320          UA       0       5      16      30      65      77      84      90      94      97
1321          UA     100
              * DDM   ***** Preserved *****

1322          KK    C104
1323          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 54 AND R102
1324          HC       2
              * DDM   ***** Preserved *****

1325          KK    C106
1326          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN C103 AND C104
1327          HC       2
              * DDM   ***** Preserved *****

1328          KK    R106
1329          KM        ROUTE FLOW FROM C106 TO C49
1330          RS       2    FLOW      -1
1331          RC     .05    .035     .05    3950    .033
1332          RX    1000    1010    1020    1030    1050    1060    1070    1080
1333          RY   13.16   12.83    12.5      10      10    12.5   12.83   13.16
              * DDM   ***** Updated *****

1334          KK     462
1335          KM   SUB-BASIN 462
1336          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1337          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
1338          KM     L =  .97  Kb = .045  Adj. Slope =  297.7
1339          BA    .301
1340          LG    .300    .330   5.300    .240  12.000
1341          UC    .225    .137
1342          UA       0       5      16      30      65      77      84      90      94      97
1343          UA     100
              * DDM   ***** Preserved *****
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1344          KK     C56
1345          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 56 AND C106
              *      1       2
1346          HC       2
              * DDM   ***** Updated *****

1347          KK     480
1348          KM   SUB-BASIN 480
1349          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1350          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
1351          KM     L = 1.21  Kb = .042  Adj. Slope =  165.0
1352          BA    .731
1353          LG    .270    .270   3.580    .730  27.000
1354          UC    .325    .148
1355          UA       0       5      16      30      65      77      84      90      94      97
1356          UA     100
              * DDM   ***** Preserved *****

1357          KK    D480
1358          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
1359          KM   DETENTION/RETENTION BASINS LOCATED WITHIN LAS SENDAS ADDENDUM III
1360          KM   FOR BASIN #: 18 & 26
1361          KM        MAXIMUM VOLUME DIVERSION = 16.5 acre-feet
              *      1
1362          DT   BS480    16.5
1363          DI       0   10000
1364          DQ       0   10000
              * DDM   ***** Preserved *****

1365          KK   RT480
1366          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
1367          DR   BS480
              * DDM   ***** Preserved *****

1368          KK   SR480
1369          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
1370          KM    16.5 ACRE-FEETx43560/36x3600=5.5cfs
1371          RS       1    STOR       0
1372          SV       0     .01    16.5
1373          SQ       0     5.6     5.6
              * DDM   ***** Preserved *****

1374          KK    C480
1375          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
1376          HC       2
              * DDM   ***** Preserved *****

1377          KK    480C
1378          KM   HYDROGRAPH COMBINATION FOR THE ENTIRE WATERSHED AT THE SALT RIVER
1379          HC       3    2.09
              * DDM   ***** Preserved *****
```



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

1380          KK   RR480
1381          KM   ROUTE FLOW FROM SUB-BASIN 480 TO SUB-BASIN 500
1382          RS       1    FLOW      -1
1383          RC    .025    .025    .025    6500     .05
1384          RX       0       1       2      28      58      84      85      86
1385          RY    13.5    13.5    13.5       0       0    13.5    13.5    13.5
              * DDM   ***** Updated *****

1386          KK     500
1387          KM   SUB-BASIN 500
1388          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1389          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
1390          KM     L = 2.77  Kb = .042  Adj. Slope =  286.8
1391          BA    .930
1392          LG    .350    .400   6.000    .170   9.000
1393          UC    .421    .333
1394          UA       0       3       5       8      12      20      43      75      90      96
```

```
1395        UA     100
            * DDM   ***** Preserved *****

1396        KK    500C
1397        KM   HYDROGRAPH COMBINATION FOR THE ENTIRE WATERSHED AT THE SALT RIVER
1398        HC       2    2.84
1399        ZZ
```

SCHEMATIC DIAGRAM OF STREAM NETWORK

```
INPUT
 LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW
  NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

  41         10
              V
              V
  51        R10
              .
              .
  57          .          20
              .           .
              .           .
  67        C20............
              .
              .
  70          .          40
              .           .
              .           .
  80          .           .          60
              .           .           .
              .           .           .
  90        60C........................
              V
              V
  93       SR60
              V
              V
 102        R60
              V
              V
 108       RR60
              .
              .
 114          .          80
              .           .
              .           .
 124        80C............
              V
              V
 127        R80
              .
              .
 133          .         100
              .           .
              .           .
 143       100C............
              V
              V
 146       R100
              .
              .
 152          .         120
              .           .
              .           .
 162       120C............
              V
              V
 165       R120
              .
              .
 171          .         140
              .           .
              .           .
 181          .           .         150
              .           .           V
              .           .           V
 191          .           .        R150
              .           .           .
              .           .           .
 197          .           .           .         160
              .           .           .           .
              .           .           .           .
 207          .           .           .           .         180
              .           .           .           .           .
              .           .           .           .           .
 217       180C..............................................
              .
              .
 220          .         350
              .           V
              .           V
 230          .        350R
              .           .
              .           .
 236          .           .         310
              .           .           .
              .           .           .
 246          .        C310............
              .           V
              .           V
 249          .        R310
              .           .
              .           .
 255          .           .         295
              .           .           .
              .           .           .
 265          .        295C............
              .           V
              .           V
 268          .        R295
              .           .
              .           .
 275          .           .         240
              .           .           .
              .           .           .
 285          .        240C............
              .           V
              .           V
 288          .        R240
```

```
295                 210
                      V
                      V
305               R210
                      .
311                   .        220
                      .          .
                      .          .
321           220C.....................
                 V
                 V
324           R220
                 .
                 .
331                 190
                      V
                      V
341               R190
                      .
                      .
347                   .        200
                      .          .
                      .          .
357           200C.....................
                 V
                 V
360           R200
                 .
                 .
366       C180............
             V
             V
369      SR180
             V
             V
378       R180
             .
             .
384           .        260
                 .
                 .
394       260C............
             V
             V
397       R260
             .
             .
403           .        280
                 .
                 .
413       280C............
             V
             V
416       R280
             .
             .
422           .        300
                 .
                 .
432       300C............
             V
             V
435       R300
             V
             V
441      RR300
             .
             .
447           .        320
                 .
                 .
462           .-------->   BS320
457           .        D320
                 .
                 .
467           .            .<-------   BS320
465           .      RT320
                 .        V
                 .        V
468           .      SR320
                 .        .
                 .        .
474       C320......................
             .
             .
477           .        340
                 .
                 .
492           .-------->   BS340
487           .        D340
                 .
                 .
497           .            .<-------   BS340
495           .      RT340
                 .        V
                 .        V
498           .      SR340
                 .        .
                 .        .
504       C340......................
             .
             .
507           .        355
                 V
                 V
517           .        R355
                 .
                 .
523           .           370
                 .          V
```

```
                                V
533                           R370
                                .
                                .
539                                   360
                                      .
                                      .
553                                   .-------> BS360
549                                D360
                                      .
                                      .
558                                   .          .<-------  BS360
556                                      RT360
                                            V
                                            V
559                                      SR360
                                            .
                                            .
565        360C.............................................
                                .
                                .
568                 395
                      V
                      V
578                 R395
                                .
                                .
584                           380
                                .
                                .
598                           .-------> BS380
594                           D380
                                .
                                .
603                                   .<-------  BS380
601                                RT380
                                      V
                                      V
604                                SR380
                                      .
                                      .
610        380C...................................
                                .
                                .
613                 390
                                .
                                .
627                           .-------> BS390
623                 D390
                                .
                                .
632                           .<-------  BS390
630                           RT390
                                V
                                V
633                           SR390
                                .
                                .
639                 390C............
                      V
                      V
642                RR390
                                .
                                .
648                           400
                                .
                                .
662                           .-------> BS400
658                           D400
                                .
                                .
667                                   .<-------  BS400
665                                RT400
                                      V
                                      V
668                                SR400
                                      .
                                      .
674                           C400............
                                .
                                .
677        400C........................
                                .
                                .
680                 385
                                .
                                .
692                           .-------> SF385
690                 D385
                      V
                      V
695                 385R
                                .
                                .
701                           420
                                .
                                .
715                           .-------> BS420
711                           D420
                                .
                                .
720                                   .<-------  BS420
718                                RT420
                                      V
                                      V
721                                SR420
                                      .
                                      .
727        420C....................................
                                .
                                .
730                 440
                      V
```

```
                V
740            R70
                .
                .
746             .        441
                .          .
                .          .
756          C108...........
                .
                .
761             .------->  SPLIT
759          DIV4
                V
                V
764          R108
                .
                .
770             .        442
                .          .
                .          .
780           C67...........
                .
                .
786             .------->  BASIN4
783          DIV6
                .
                .
791             .          .<-------  BASIN4
789             .      RTDIV6
                .          V
                .          V
792             .      RFDIV6
                .          .
                .          .
798        CDIV6...........
                .
                .
801             .        443
                .          .
                .          .
814             .          .------->  WSH66
811             .       DIV66
                .          V
                .          V
817             .       R113
                .          .
                .          .
823          C114...........
                .
                .
826             .        444
                .          V
                .          V
836             .        R58
                .          .
                .          .
842             .          .        445
                .          .          .
                .          .          .
852             .      C107...........
                .          V
                .          V
855             .      R107
                .          .
                .          .
863             .          .          .<-------  SPLIT
861             .          .      RTB2
                .          .          V
                .          .          V
864             .          .     RSPLIT
                .          .          .
                .          .          .
870             .          .          .        446
                .          .          .          .
                .          .          .          .
880             .      C109.......................
                .          .
                .          .
886             .          .------->  WSH404
883             .      DIV5
                .          V
                .          V
889             .      R109
                .          .
                .          .
895             .          .        447
                .          .          .
                .          .          .
907             .          .          .          .<-------  WSH404
905             .          .          .      RT404
                .          .          .          V
                .          .          .          V
908             .          .          .       R404
                .          .          .          .
                .          .          .          .
914             .      C110.......................
                .          V
                .          V
917             .      R110
                .          .
                .          .
923          C115...........
                V
                V
926          R115
                .
                .
933             .        448
                .          .
                .          .
943             .          .        449
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 953          .          .      C6364............
              .          .          V
              .          .          V
 956          .          .      R6364
              .          .          .
              .          .          .
 962          .          .          .        450
              .          .          .          .
              .          .          .          .
 972          .          .          .          .         451
              .          .          .          .           .
              .          .          .          .           .
 984          .          .          .          .           .          .<-------   WSH66
 982          .          .          .          .           .      RT66
              .          .          .          .           .          .
              .          .          .          .           .          .
 985          .          .          .          .           .          .        452
              .          .          .          .           .          .          .
              .          .          .          .           .          .          .
 995          .          .          .          .           .      C6465............
              .          .          .          .           .          V
              .          .          .          .           .          V
 998          .          .          .          .           .      R6566
              .          .          .          .           .          .
              .          .          .          .           .          .
1004          .          .      C116.................................
              .          .          V
              .          .          V
1007          .          .     BASIN5
              .          .          V
              .          .          V
1014          .          .      R116
              .          .          .
              .          .          .
1020          .          .          .        453
              .          .          .          .
              .          .          .          .
1030          .          .      C117............
              .          .          .
              .          .          .
1033          .       C118............
              .          V
              .          V
1036          .       R118
              .          .
              .          .
1045          .          .-------> BASIN6
1042          .       DIV7
              .          .
              .          .
1050          .          .          .<-------  BASIN6
1048          .          .     RTDIV7
              .          .          V
              .          .          V
1051          .          .     RFDIV7
              .          .          .
              .          .          .
1057          .      CDIV7............
              .          .
              .          .
1060          .          .        454
              .          .          .
              .          .          .
1070          .       C119............
              .          V
              .          V
1073          .       R454
              .          .
              .          .
1079          .          .        415
              .          .          .
              .          .          .
1091          .          .          .          .<-------   SF385
1089          .          .          .      RT385
              .          .          .          V
              .          .          .          V
1092          .          .          .      RR385
              .          .          .          .
              .          .          .          .
1098          .      415C.......................
              .          V
              .          V
1101          .       R415
              .          .
              .          .
1107          .          .        455
              .          .          .
              .          .          .
1122          .          .          .------->   BS455
1117          .          .      D455
              .          .          .
              .          .          .
1127          .          .          .          .<-------   BS455
1125          .          .          .      RT455
              .          .          .          V
              .          .          .          V
1128          .          .          .      SR455
              .          .          .          .
              .          .          .          .
1134          .          .      C455............
              .          .          .
              .          .          .
1137       455C........................
              V
              V
1140      SR440
              V
              V
1149      RR455
              .
              .
1155          .        456
              .          .
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1168          .          .-------> BASIN1
1165          .       DIV1
              .          .
              .          .
1174          .          .------->   WA30
1171          .       DIV2
              .          V
              .          V
1177          .       R456
              .          .
              .          .
1183          .          .        457
              .          .          .
              .          .          .
1193          .       C101............
              .          .
              .          .
1199          .          .-------> BASIN2
1196          .       DIV3
              .          .
              .          .
1204          .          .          .<------- BASIN2
1202          .          .     RTDIV3
              .          .          V
              .          .          V
1205          .          .    RFDIV3
              .          .          .
              .          .          .
1211          .      CDIV3............
              .          V
              .          V
1214          .       R101
              .          .
              .          .
1220          .          .        458
              .          .          .
              .          .          .
1230          .       C103............
              .          V
              .          V
1233          .       R103
              .          .
              .          .
1241          .          .          .<-------   WA30
1239          .          .       RT30
              .          .          V
              .          .          V
1242          .          .       R30
              .          .          .
              .          .          .
1250          .          .          .          .<------- BASIN1
1248          .          .          .       RTB1
              .          .          .          V
              .          .          .          V
1251          .          .          .         B1
              .          .          .          V
              .          .          .          V
1258          .          .          .        RB1
              .          .          .          .
              .          .          .          .
1264          .          .       CDIV............
              .          .          .
              .          .          .
1267          .          .          .        459
              .          .          .          .
              .          .          .          .
1277          .          .       C52............
              .          .          V
              .          .          V
1280          .          .       R52
              .          .          .
              .          .          .
1286          .          .          .        460
              .          .          .          .
              .          .          .          .
1296          .          .       C102............
              .          .          V
              .          .          V
1299          .          .     BASIN3
              .          .          V
              .          .          V
1306          .          .         R3
              .          .          .
              .          .          .
1312          .          .          .        461
              .          .          .          .
              .          .          .          .
1322          .          .       C104............
              .          .          .
              .          .          .
1325          .       C106............
              .          V
              .          V
1328          .       R106
              .          .
              .          .
1334          .          .        462
              .          .          .
              .          .          .
1344          .        C56............
              .          .
              .          .
1347          .          .        480
              .          .          .
              .          .          .
1362          .          .          .-------> BS480
1357          .          .       D480
              .          .          .
              .          .          .
1367          .          .          .          .<------- BS480
1365          .          .          .      RT480
              .          .          .          V
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                 .          .          .          V
1368             .          .          .       SR480
                 .          .          .          .
                 .          .          .          .
1374             .          .       C480...........
                 .          .          .
                 .          .          .
1377         480C.......................
                V
                V
1380        RR480
                 .
                 .
1386             .        500
                 .          .
                 .          .
1396         500C............
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(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

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

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	10	951.	12.27	114.	31.	15.	.70		
+	ROUTED TO	R10	826.	12.60	114.	31.	15.	.70		
+	HYDROGRAPH AT	20	959.	12.43	128.	32.	16.	1.12		
+	2 COMBINED AT	C20	1635.	12.53	240.	63.	30.	1.82		
+	HYDROGRAPH AT	40	2582.	12.30	252.	66.	32.	2.23		
+	HYDROGRAPH AT	60	1553.	12.40	228.	61.	29.	1.75		
+	3 COMBINED AT	60C	5014.	12.37	708.	188.	90.	5.80		
+	ROUTED TO	SR60	92.	14.47	92.	89.	70.	5.80		
+	ROUTED TO	R60	92.	14.53	92.	89.	70.	5.80		
+	ROUTED TO	RR60	92.	14.63	92.	89.	70.	5.80		
+	HYDROGRAPH AT	80	1868.	12.27	179.	46.	22.	1.48		
+	2 COMBINED AT	80C	1942.	12.27	266.	134.	92.	1.48		
+	ROUTED TO	R80	1919.	12.27	266.	134.	92.	1.48		
+	HYDROGRAPH AT	100	404.	12.20	58.	15.	7.	.48		
+	2 COMBINED AT	100C	2300.	12.27	321.	148.	99.	1.96		
+	ROUTED TO	R100	2292.	12.30	321.	148.	99.	1.96		
+	HYDROGRAPH AT	120	3232.	12.27	326.	88.	42.	2.20		
+	2 COMBINED AT	120C	5469.	12.27	636.	229.	140.	4.16		
+	ROUTED TO	R120	5397.	12.30	636.	229.	140.	4.16		
+	HYDROGRAPH AT	140	632.	12.13	64.	17.	8.	.60		
+	HYDROGRAPH AT	150	135.	13.20	47.	13.	6.	.41		
+	ROUTED TO	R150	132.	13.67	47.	13.	6.	.41		
+	HYDROGRAPH AT	160	217.	12.40	35.	9.	4.	.37		
+	HYDROGRAPH AT	180	785.	12.37	90.	23.	11.	1.00		
+	5 COMBINED AT	180C	6707.	12.30	856.	286.	168.	6.54		
+	HYDROGRAPH AT	350	1151.	12.20	102.	27.	13.	.94		
+	ROUTED TO	350R	1032.	12.37	102.	27.	13.	.94		
+	HYDROGRAPH AT	310	376.	12.33	49.	12.	6.	.56		
+	2 COMBINED AT	C310	1386.	12.37	148.	38.	18.	1.49		
+	ROUTED TO	R310	1279.	12.53	148.	38.	18.	1.49		
+	HYDROGRAPH AT	295	364.	12.30	40.	10.	5.	.38		
+	2 COMBINED AT	295C	1490.	12.53	187.	48.	23.	1.87		
+	ROUTED TO	R295	1461.	12.60	187.	48.	23.	1.87		
+	HYDROGRAPH AT	240	846.	12.33	107.	27.	13.	1.04		
+	2 COMBINED AT	240C	2004.	12.57	291.	75.	36.	2.91		

+	ROUTED TO	R240	1951.	12.63	291.	75.	36.	2.91
+	HYDROGRAPH AT	210	873.	12.20	82.	22.	10.	.58
	ROUTED TO	R210	803.	12.30	82.	22.	10.	.58
+	HYDROGRAPH AT	220	1057.	12.17	93.	23.	11.	.69
+	3 COMBINED AT	220C	2540.	12.57	459.	118.	57.	4.18
+	ROUTED TO	R220	2527.	12.60	459.	118.	57.	4.18
+	HYDROGRAPH AT	190	1403.	12.17	116.	31.	15.	.92
+	ROUTED TO	R190	1272.	12.30	116.	31.	15.	.92
+	HYDROGRAPH AT	200	1399.	12.17	115.	30.	15.	.92
+	3 COMBINED AT	200C	4538.	12.27	680.	177.	85.	6.01
+	ROUTED TO	R200	4514.	12.30	680.	177.	85.	6.01
+	2 COMBINED AT	C180	11000.	12.30	1503.	451.	249.	12.55
+	ROUTED TO	SR180	144.	17.10	143.	143.	117.	12.55
+	ROUTED TO	R180	144.	17.17	143.	143.	117.	12.55
+	HYDROGRAPH AT	260	418.	12.10	43.	12.	6.	.27
+	2 COMBINED AT	260C	528.	12.13	182.	154.	124.	.27
+	ROUTED TO	R260	510.	12.20	181.	154.	124.	.27
+	HYDROGRAPH AT	280	478.	12.10	42.	12.	6.	.30
	2 COMBINED AT	280C	942.	12.13	221.	164.	129.	.57
+	ROUTED TO	R280	906.	12.20	221.	164.	128.	.57
+	HYDROGRAPH AT	300	835.	12.13	77.	21.	10.	.68
+	2 COMBINED AT	300C	1692.	12.17	294.	183.	138.	1.25
+	ROUTED TO	R300	1647.	12.23	293.	183.	138.	1.25
+	ROUTED TO	RR300	1583.	12.27	293.	183.	137.	1.25
+	HYDROGRAPH AT	320	1040.	12.17	111.	31.	15.	.87
+	DIVERSION TO	BS320	409.	11.93	21.	6.	3.	.87
+	HYDROGRAPH AT	D320	1040.	12.17	96.	25.	12.	.87
+	HYDROGRAPH AT	RT320	409.	11.93	21.	6.	3.	.87
+	ROUTED TO	SR320	4.	4.17	4.	4.	3.	.87
+	3 COMBINED AT	C320	2461.	12.23	391.	211.	152.	2.12
+	HYDROGRAPH AT	340	1471.	12.17	186.	55.	26.	1.45
+	DIVERSION TO	BS340	1471.	12.17	104.	28.	14.	1.45
+	HYDROGRAPH AT	D340	1199.	12.33	97.	27.	13.	1.45
+	HYDROGRAPH AT	RT340	1471.	12.17	104.	28.	14.	1.45
	ROUTED TO	SR340	19.	9.00	19.	19.	14.	1.45
	3 COMBINED AT	C340	3428.	12.33	502.	255.	177.	3.57
+	HYDROGRAPH AT	355	537.	12.33	73.	19.	9.	.69
+	ROUTED TO	R355	481.	12.67	72.	19.	9.	.69

+	HYDROGRAPH AT	370	588.	12.30	79.	21.	10.	.67
+	ROUTED TO	R370	524.	12.63	79.	21.	10.	.67
+	HYDROGRAPH AT	360	504.	12.23	84.	25.	12.	.67
+	DIVERSION TO	BS360	504.	12.23	53.	14.	7.	.67
+	HYDROGRAPH AT	D360	306.	12.63	38.	11.	5.	.67
+	HYDROGRAPH AT	RT360	504.	12.23	53.	14.	7.	.67
+	ROUTED TO	SR360	10.	9.83	10.	10.	7.	.67
+	5 COMBINED AT	360C	3486.	12.33	689.	312.	207.	5.60
+	HYDROGRAPH AT	395	182.	12.23	25.	7.	3.	.20
+	ROUTED TO	R395	157.	12.67	25.	7.	3.	.20
+	HYDROGRAPH AT	380	666.	12.27	98.	26.	13.	.97
+	DIVERSION TO	BS380	666.	12.27	56.	14.	7.	.97
+	HYDROGRAPH AT	D380	472.	12.57	46.	12.	6.	.97
+	HYDROGRAPH AT	RT380	666.	12.27	56.	14.	7.	.97
+	ROUTED TO	SR380	10.	11.33	10.	10.	7.	.97
+	4 COMBINED AT	380C	3488.	12.33	763.	338.	222.	6.77
+	HYDROGRAPH AT	390	463.	12.03	33.	10.	5.	.24
+	DIVERSION TO	BS390	95.	11.73	6.	2.	1.	.24
+	HYDROGRAPH AT	D390	463.	12.03	30.	8.	4.	.24
+	HYDROGRAPH AT	RT390	95.	11.73	6.	2.	1.	.24
+	ROUTED TO	SR390	1.	.90	1.	1.	1.	.24
+	2 COMBINED AT	390C	464.	12.03	31.	9.	5.	.24
+	ROUTED TO	RR390	367.	12.30	31.	9.	5.	.24
+	HYDROGRAPH AT	400	351.	12.23	47.	13.	6.	.62
+	DIVERSION TO	BS400	262.	12.10	10.	3.	1.	.62
+	HYDROGRAPH AT	D400	351.	12.23	39.	10.	5.	.62
+	HYDROGRAPH AT	RT400	262.	12.10	10.	3.	1.	.62
+	ROUTED TO	SR400	2.	8.70	2.	2.	1.	.62
+	2 COMBINED AT	C400	353.	12.23	41.	12.	6.	.62
+	3 COMBINED AT	400C	4137.	12.33	829.	358.	233.	7.63
+	HYDROGRAPH AT	385	782.	12.23	87.	24.	12.	.65
+	DIVERSION TO	SF385	313.	12.23	35.	10.	5.	.65
+	HYDROGRAPH AT	D385	469.	12.23	52.	14.	7.	.65
+	ROUTED TO	385R	404.	12.53	52.	14.	7.	.65
+	HYDROGRAPH AT	420	752.	12.20	92.	26.	12.	.85
+	DIVERSION TO	BS420	269.	11.97	15.	4.	2.	.85
+	HYDROGRAPH AT	D420	752.	12.20	83.	22.	10.	.85
+	HYDROGRAPH AT	RT420	269.	11.97	15.	4.	2.	.85

+	ROUTED TO	SR420	13.	11.03	12.	4.	2.	.85
+	4 COMBINED AT	420C	4858.	12.33	957.	391.	250.	10.77
	HYDROGRAPH AT	440	180.	12.03	12.	3.	2.	.08
+	ROUTED TO	R70	176.	12.07	12.	3.	2.	.08
+	HYDROGRAPH AT	441	16.	12.03	1.	0.	0.	.01
+	2 COMBINED AT	C108	191.	12.07	14.	4.	2.	.09
+	DIVERSION TO	SPLIT	96.	12.07	7.	2.	1.	.09
+	HYDROGRAPH AT	DIV4	96.	12.07	7.	2.	1.	.09
+	ROUTED TO	R108	88.	12.13	7.	2.	1.	.09
+	HYDROGRAPH AT	442	102.	12.10	9.	2.	1.	.10
+	2 COMBINED AT	C67	187.	12.10	15.	4.	2.	.19
+	DIVERSION TO	BASIN4	115.	12.10	6.	1.	1.	.19
+	HYDROGRAPH AT	DIV6	72.	12.10	10.	3.	1.	.19
+	HYDROGRAPH AT	RTDIV6	115.	12.10	6.	1.	1.	.19
+	ROUTED TO	RFDIV6	1.	11.90	1.	1.	1.	.19
+	2 COMBINED AT	CDIV6	74.	12.10	10.	4.	2.	.19
+	HYDROGRAPH AT	443	148.	12.07	14.	4.	2.	.08
+	DIVERSION TO	WSH66	78.	11.90	12.	3.	2.	.08
	HYDROGRAPH AT	DIV66	70.	12.07	3.	1.	0.	.08
+	ROUTED TO	R113	69.	12.07	3.	1.	0.	.08
+	2 COMBINED AT	C114	140.	12.07	13.	4.	2.	.27
+	HYDROGRAPH AT	444	82.	12.03	5.	1.	1.	.04
+	ROUTED TO	R58	75.	12.07	5.	1.	1.	.04
+	HYDROGRAPH AT	445	296.	12.03	18.	5.	2.	.19
+	2 COMBINED AT	C107	365.	12.03	22.	6.	3.	.23
+	ROUTED TO	R107	365.	12.07	22.	6.	3.	.23
+	HYDROGRAPH AT	RTB2	96.	12.07	7.	2.	1.	.09
+	ROUTED TO	RSPLIT	95.	12.07	7.	2.	1.	.09
+	HYDROGRAPH AT	446	65.	12.03	6.	2.	1.	.04
+	3 COMBINED AT	C109	520.	12.07	35.	9.	4.	.27
+	DIVERSION TO	WSH404	35.	11.73	8.	2.	1.	.27
+	HYDROGRAPH AT	DIV5	485.	12.07	27.	7.	3.	.27
+	ROUTED TO	R109	469.	12.10	27.	7.	3.	.27
+	HYDROGRAPH AT	447	138.	12.07	12.	4.	2.	.09
	HYDROGRAPH AT	RT404	35.	11.73	8.	2.	1.	.27
	ROUTED TO	R404	35.	11.90	8.	2.	1.	.27
+	3 COMBINED AT	C110	635.	12.07	46.	13.	6.	.36
+	ROUTED TO	R110	632.	12.10	46.	13.	6.	.36

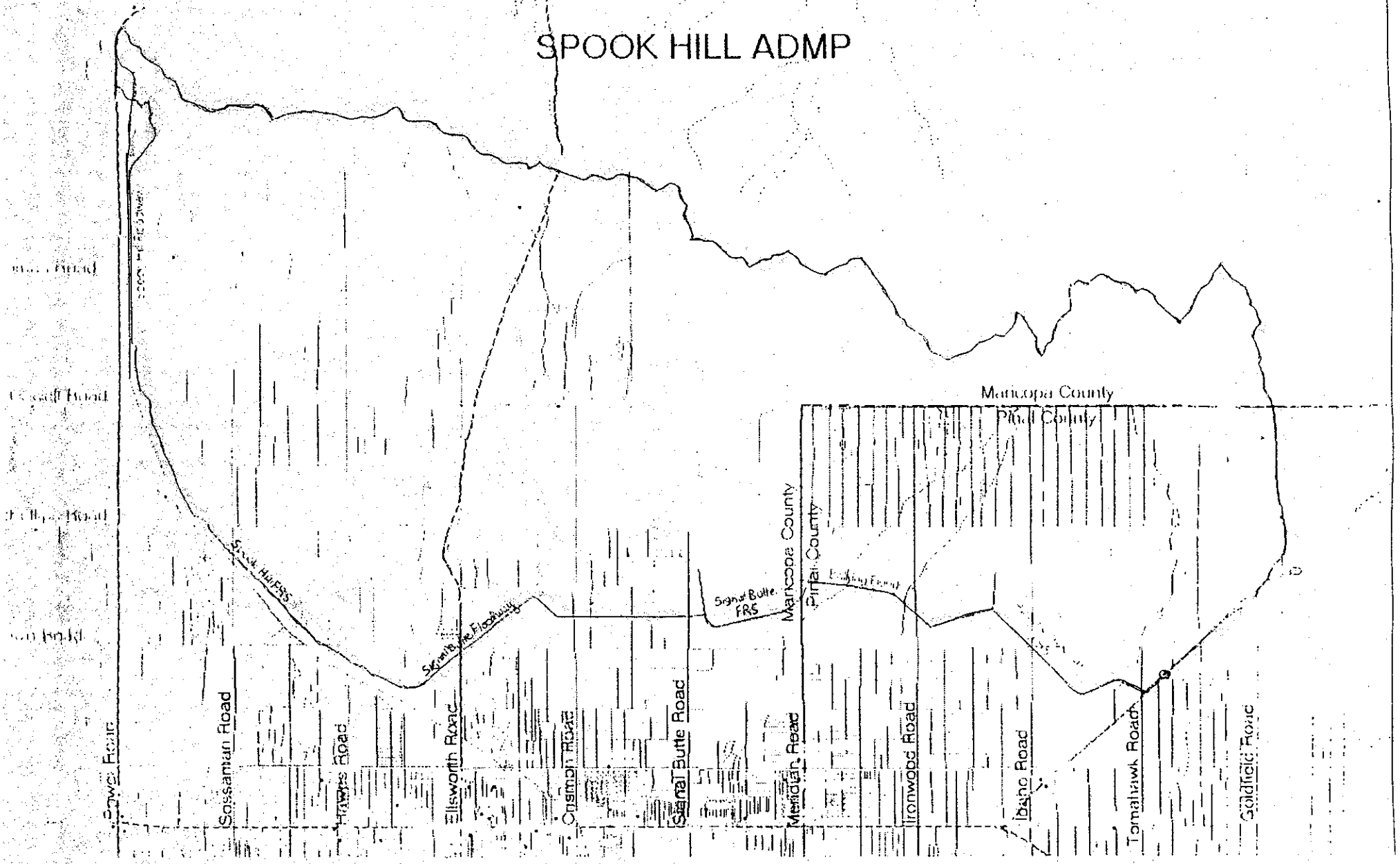
+ 2 COMBINED AT	C115	764.	12.10	59.	17.	8.	.63
+ ROUTED TO	R115	767.	12.10	59.	17.	8.	.63
HYDROGRAPH AT	448	88.	12.03	6.	2.	1.	.05
+ HYDROGRAPH AT	449	80.	12.03	5.	1.	1.	.05
+ 2 COMBINED AT	C6364	166.	12.03	11.	3.	1.	.09
+ ROUTED TO	R6364	137.	12.17	11.	3.	1.	.09
+ HYDROGRAPH AT	450	61.	12.20	6.	2.	1.	.07
+ HYDROGRAPH AT	451	18.	12.17	2.	1.	0.	.03
+ HYDROGRAPH AT	RT66	78.	11.90	12.	3.	2.	.08
+ HYDROGRAPH AT	452	62.	12.03	4.	1.	1.	.04
+ 2 COMBINED AT	C6465	140.	12.03	16.	4.	2.	.04
+ ROUTED TO	R6566	135.	12.10	16.	4.	2.	.04
+ 4 COMBINED AT	C116	341.	12.17	35.	9.	4.	.23
+ ROUTED TO	BASIN5	152.	12.47	35.	9.	4.	.23
+ ROUTED TO	R116	150.	12.53	35.	9.	4.	.23
+ HYDROGRAPH AT	453	62.	12.10	7.	2.	1.	.06
+ 2 COMBINED AT	C117	169.	12.50	41.	11.	5.	.29
+ 2 COMBINED AT	C118	852.	12.10	99.	28.	14.	.92
ROUTED TO	R118	842.	12.10	99.	28.	14.	.92
+ DIVERSION TO	BASIN6	243.	12.10	10.	2.	1.	.92
+ HYDROGRAPH AT	DIV7	599.	12.10	89.	25.	13.	.92
+ HYDROGRAPH AT	RTDIV7	243.	12.10	10.	2.	1.	.92
+ ROUTED TO	RFDIV7	1.	11.97	1.	1.	1.	.92
+ 2 COMBINED AT	CDIV7	600.	12.10	90.	26.	13.	.92
+ HYDROGRAPH AT	454	157.	12.17	21.	6.	3.	.18
+ 2 COMBINED AT	C119	748.	12.13	110.	32.	16.	1.10
+ ROUTED TO	R454	681.	12.40	110.	32.	16.	1.10
+ HYDROGRAPH AT	415	412.	12.17	55.	16.	7.	.45
+ HYDROGRAPH AT	RT385	313.	12.23	35.	10.	5.	.65
+ ROUTED TO	RR385	285.	12.40	35.	10.	5.	.65
+ 3 COMBINED AT	415C	1253.	12.37	196.	56.	28.	1.55
+ ROUTED TO	R415	1225.	12.43	196.	56.	28.	1.55
+ HYDROGRAPH AT	455	1346.	12.13	142.	43.	21.	1.11
+ DIVERSION TO	BS455	1346.	12.13	137.	37.	18.	1.11
HYDROGRAPH AT	D455	55.	12.77	16.	6.	3.	1.11
HYDROGRAPH AT	RT455	1346.	12.13	137.	37.	18.	1.11
+ ROUTED TO	SR455	25.	10.47	25.	25.	18.	1.11
+ 2 COMBINED AT	C455	80.	12.77	41.	31.	21.	1.11

+	3 COMBINED AT 455C	5805.	12.37	1161.	468.	295.	13.43
+	ROUTED TO SR440	788.	13.80	771.	467.	294.	13.43
+	ROUTED TO RR455	788.	14.10	771.	467.	292.	13.43
+	HYDROGRAPH AT 456	468.	12.07	35.	10.	5.	.26
+	DIVERSION TO BASIN1	184.	12.07	8.	2.	1.	.26
+	HYDROGRAPH AT DIV1	284.	12.07	27.	8.	4.	.26
+	DIVERSION TO WA30	58.	12.07	10.	3.	2.	.26
+	HYDROGRAPH AT DIV2	226.	12.07	18.	4.	2.	.26
+	ROUTED TO R456	213.	12.13	18.	4.	2.	.26
+	HYDROGRAPH AT 457	264.	12.07	20.	5.	3.	.19
+	2 COMBINED AT C101	462.	12.10	38.	10.	5.	.45
+	DIVERSION TO BASIN2	165.	12.10	7.	2.	1.	.45
+	HYDROGRAPH AT DIV3	297.	12.10	30.	8.	4.	.45
+	HYDROGRAPH AT RTDIV3	165.	12.10	7.	2.	1.	.45
+	ROUTED TO RFDIV3	2.	11.90	2.	2.	1.	.45
+	2 COMBINED AT CDIV3	299.	12.10	32.	9.	5.	.45
+	ROUTED TO R101	297.	12.10	32.	9.	5.	.45
+	HYDROGRAPH AT 458	356.	12.03	25.	7.	3.	.19
+	2 COMBINED AT C103	635.	12.07	56.	16.	8.	.64
+	ROUTED TO R103	630.	12.07	56.	16.	8.	.64
+	HYDROGRAPH AT RT30	58.	12.07	10.	3.	2.	.26
+	ROUTED TO R30	57.	12.10	10.	3.	2.	.26
+	HYDROGRAPH AT RTB1	184.	12.07	8.	2.	1.	.26
+	ROUTED TO B1	37.	12.23	8.	2.	1.	.26
+	ROUTED TO RB1	37.	12.30	8.	2.	1.	.26
+	2 COMBINED AT CDIV	86.	12.20	17.	5.	3.	.12
+	HYDROGRAPH AT 459	44.	12.03	3.	1.	0.	.03
+	2 COMBINED AT C52	113.	12.10	20.	6.	3.	.15
+	ROUTED TO R52	112.	12.17	20.	6.	3.	.15
+	HYDROGRAPH AT 460	214.	12.07	19.	6.	3.	.14
+	2 COMBINED AT C102	313.	12.07	39.	12.	6.	.29
+	ROUTED TO BASIN3	71.	12.63	39.	12.	6.	.29
+	ROUTED TO R3	71.	12.77	39.	12.	6.	.29
+	HYDROGRAPH AT 461	161.	12.10	17.	5.	2.	.12
+	2 COMBINED AT C104	213.	12.10	55.	17.	8.	.41
+	2 COMBINED AT C106	835.	12.07	110.	32.	16.	1.05
+	ROUTED TO R106	797.	12.13	110.	32.	16.	1.05
+	HYDROGRAPH AT 462	538.	12.07	40.	11.	5.	.30

	2 COMBINED AT							
+		C56	1254.	12.10	149.	42.	21.	1.35
	HYDROGRAPH AT							
+		480	1050.	12.10	96.	29.	14.	.73
	DIVERSION TO							
		BS480	455.	11.90	27.	8.	4.	.73
	HYDROGRAPH AT							
+		D480	1050.	12.10	78.	21.	10.	.73
	HYDROGRAPH AT							
+		RT480	455.	11.90	27.	8.	4.	.73
	ROUTED TO							
+		SR480	6.	3.90	6.	6.	4.	.73
	2 COMBINED AT							
+		C480	1056.	12.10	84.	27.	14.	.73
	3 COMBINED AT							
+		480C	2521.	12.10	952.	549.	335.	2.09
	ROUTED TO							
+		RR480	2359.	12.13	949.	549.	334.	2.09
	HYDROGRAPH AT							
+		500	1073.	12.27	122.	33.	16.	.93
	2 COMBINED AT							
+		500C	3250.	12.17	1061.	577.	349.	2.84

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

SPOOK HILL ADMP



HEC-1 Existing condition 100-Year, 24-Hour Storm. Pass Mountain Diversion with new boundaries for Sub-Basins 350 & 355. Levee extended North-West creating new boundary for Sub-Basins 295, 300, and 305. Offline basins added to Sub-Basins 300 & 305.

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1*************************************                                    *************************************
 *                                   *                                    *                                   *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *                                *    U.S. ARMY CORPS OF ENGINEERS   *
 *              JUN   1998           *                                    *    HYDROLOGIC ENGINEERING CENTER  *
 *           VERSION 4.1             *                                    *          609 SECOND STREET        *
 *                                   *                                    *       DAVIS, CALIFORNIA 95616     *
 *  RUN DATE   01MAY00  TIME  12:03:58  *                                 *           (916) 756-1104          *
 *                                   *                                    *                                   *
*************************************                                    *************************************

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


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

1                                          HEC-1 INPUT                                                    PAGE  1

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

  1           ID   EXISTING LAND USE CALCULATIONS WERE BASED ON 1 YR. FROM 11/5/99
  2           ID   FOR LAS SENDAS       AND LANDISCOR JAN.1999 AERIAL PHOTOGPRAPHS
  3           ID
  4           ID   ALL DAMS WERE ANALYZED WITH NO STORAGE BELOW PRINCIPLE SPILLWAY ELEVATIONS
  5           ID
  6           ID   A CONSERVATIVE ESTIMATE WAS USED FOR THE LOCATION OF THE CENTROID FOR
  7           ID   PRECIPITATION VALUES
  8           ID
  9           ID   ALL CHANNEL ROUTING INFORMATION WAS OBTAINED FROM MCFCD SPOOK HILL   SIGNAL
 10           ID   BUTTE        AND BULLDOG FLOODWAY PLANS
 11           ID
 12           ID
 13           ID   PASS MOUNTAIN DIVERSION ALTERNATIVE WITH REDIRECTION OF FLOW FROM NEW
 14           ID   BOUNDARIES FOR SUB-BASINS 350 & 355. ADDITIONAL LEVEE ADDED TO WHAT WAS
 15           ID   SUB-BASINS 300 & 320 WITH 300 NOW BEING RELABELED 295, 300, AND 305.
 16           ID   OFFLINE BASINS ADDED TO SUB-BASINS 300 & 305
 17           ID
 18           ID   ANALYSIS PERFORMED BY WOOD/PATEL 05/01/00  BY: MW;  FILE S24CE4.DAT
 19           ID
 20           ID   DDM MCUHP1 SPOOK HILL AMDP - EXISTING CONDITIONS MODEL - 100YR, 24HR STORM
              *DIAGRAM
 21           IT       2                    1500
 22           IO       3
 23           IN      15
 24           JD    3.81    0.01
 25           PC    .000    .002    .005    .008    .011    .014    .017    .020    .023    .026
 26           PC    .029    .032    .035    .038    .041    .044    .048    .052    .056    .060
 27           PC    .064    .068    .072    .076    .080    .085    .090    .095    .100    .105
 28           PC    .110    .115    .120    .126    .133    .140    .147    .155    .163    .172
 29           PC    .181    .191    .203    .218    .236    .257    .283    .387    .663    .707
 30           PC    .735    .758    .776    .791    .804    .815    .825    .834    .842    .849
 31           PC    .856    .863    .869    .875    .881    .887    .893    .898    .903    .908
 32           PC    .913    .918    .922    .926    .930    .934    .938    .942    .946    .950
 33           PC    .953    .956    .959    .962    .965    .968    .971    .974    .977    .980
 34           PC    .983    .986    .989    .992    .995    .998   1.000
 35           JD    3.58   10.00
 36           JD    3.43   30.00
 37           JD    3.28   60.00
 38           JD    3.22   90.00
 39           JD    3.18  120.00
 40           JD    3.14  150.00
 41           JD    3.05  300.00
 42           JD    2.97  500.00
              * DDM   ***** Updated *****

 43           KK      10
 44           KM   SUB-BASIN 10
 45           KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 46           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
 47           KM     L = 2.00  Kb = .044  Adj. Slope =  165.0
 48           BA    .702
 49           LG    .350    .320   7.600    .090  15.000
 50           UC    .421    .302
 51           UA       0       3       5       8      12      20      43      75      90      96
 52           UA     100
              * DDM   ***** Preserved *****
1                                          HEC-1 INPUT                                                    PAGE  2

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

 53           KK     R10
 54           KM   ROUTING OF FLOW FROM SUB-BASIN 10 TO SUB-BASIN 20
 55           RS      10    FLOW      -1
 56           RC    .045    .045    .045   13200    .017
 57           RX       0       1       2      14      34      46      47      48
 58           RY       4       4       4       0       0       4       4       4
              * DDM   ***** Updated *****

 59           KK      20
 60           KM   SUB-BASIN 20
 61           KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 62           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .993
 63           KM     L = 2.50  Kb = .041  Adj. Slope =   88.0
 64           BA   1.120
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 65          LG    .350    .390   5.800    .190   1.000
 66          UC    .658    .454
 67          UA       0       3       5       8      12      20      43      75      90      96
 68          UA     100
             * DDM   ***** Preserved *****

 69          KK     C20
 70          KM   HYDROGRAPH COMBINATION OF SUB-BASINS 10 AND 20
 71          HC       2
             * DDM   ***** Updated *****

 72          KK      40
 73          KM   SUB-BASIN 40
 74          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 75          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .987
 76          KM     L = 3.08  Kb = .036  Adj. Slope =  189.0
 77          BA   2.233
 78          LG    .340    .340   4.900    .280   5.000
 79          UC    .496    .264
 80          UA       0       3       5       8      12      20      43      75      90      96
 81          UA     100
             * DDM   ***** Updated *****

 82          KK      60
 83          KM   SUB-BASIN 60
 84          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 85          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .990
 86          KM     L = 4.19  Kb = .038  Adj. Slope =  209.6
 87          BA   1.746
 88          LG    .330    .350   5.800    .190   9.000
 89          UC    .596    .477
 90          UA       0       3       5       8      12      20      43      75      90      96
 91          UA     100
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE  3

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

 92          KK     60C
 93          KM   HYDROGRAPH COMBINATION FOR APACHE JUNCTION FRS
             *      1       2
 94          HC       3
             * DDM   ***** Preserved *****

 95          KK    SR60
 96          KM   APACHE JUNCTION FRS AS-BUILT PLANS 12/19/88
 97          KM   OUTLET PIPE=30"RCP; L=136.6'; INLET INV.=1783.5; OUTLET INV.=1783
 98          KM   EMERGENCY SPILLWAY ELEV.=1799.77'; PRINCIPLE SPILLWAY ELEV.=1793.5'
 99          KM   STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 100 ACRE-FEET
100          RS       1    STOR       0
101          SV       0       1     100     200     300     400
102          SQ       0      71      81      87    91.5      94
103          SE    83.5    93.5      96    97.7      99   99.77
             * DDM   ***** Preserved *****

104          KK     R60
105          KM        ROUTE FLOW THROUGH BULLDOG FLOODWAY FROM APACHE JUNCTION FRS
106          RS       2    FLOW      -1
107          RC    .016    .016    .016    2850    .012
108          RX       0       1       2     2.1     5.6     5.7       6       7
109          RY     3.5     3.5     3.5       0       0     3.5     3.5     3.5
             * DDM   ***** Preserved *****

110          KK    RR60
111          KM   ROUTE FLOW FROM BULLDOG FLOODWAY TO SUB-BASIN 80
112          RS       3    FLOW      -1
113          RC    .016    .016    .016    3500    .005
114          RX       0       1       2     2.1     7.1     7.2       8       9
115          RY     3.5     3.5     3.5       0       0     3.5     3.5     3.5
             * DDM   ***** Updated *****

116          KK      80
117          KM   SUB-BASIN 80
118          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
119          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
120          KM     L = 2.69  Kb = .039  Adj. Slope =  229.8
121          BA   1.475
122          LG    .330    .330   5.600    .210   4.000
123          UC    .433    .259
124          UA       0       3       5       8      12      20      43      75      90      96
125          UA     100
             * DDM   ***** Preserved *****

126          KK     80C
127          KM   HYDROGRAPH COMBINATION FOR FLOW FROM APACHE JUNCTION FRS & SUB-BASIN 80
128          HC       2   1.475
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE  4

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

129          KK     R80
130          KM   ROUTE FLOW FROM SUB-BASIN 80 TO SUB-BASIN 100
131          RS       1    FLOW      -1
132          RC    .025    .016    .025    1200    .003
133          RX       0       2       6     6.1    41.1    41.2    56.2    58.2
134          RY     5.5     4.5     4.5       0       0     4.5     4.5     5.5
             * DDM   ***** Updated *****

135          KK     100
136          KM   SUB-BASIN 100
137          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
138          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
139          KM     L = 1.94  Kb = .046  Adj. Slope =  108.0
140          BA    .484
141          LG    .320    .290   5.100    .260   3.000
142          UC    .533    .473
143          UA       0       5      16      30      65      77      84      90      94      97
144          UA     100
             * DDM   ***** Preserved *****
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145          KK    100C
146          KM   HYDROGRAPH COMBINATION FOR FLOW FROM SUB-BASIN 80 & 100
147          HC       2
             * DDM   ***** Preserved *****

148          KK    R100
149          KM   ROUTE FLOW FROM SUB-BASIN 100 TO SUB-BASIN 120
150          RS       1    FLOW      -1
151          RC    .016    .016    .016     940    .005
152          RX       0       1       2     2.1    52.1    52.2      53      54
153          RY     4.5     4.5     4.5       0       0     4.5     4.5     4.5
             * DDM   ***** Updated *****

154          KK     120
155          KM   SUB-BASIN 120
156          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
157          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .987
158          KM     L = 3.07  Kb = .037  Adj. Slope =  239.0
159          BA   2.202
160          LG    .330    .280   6.800    .130  11.000
161          UC    .429    .226
162          UA       0       3       5       8      12      20      43      75      90      96
163          UA     100
             * DDM   ***** Preserved *****

164          KK    120C
165          KM   HYDROGRAPH COMBINATION FOR FLOW FROM SUB-BASIN 100 & 120
166          HC       2
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE  5

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

167          KK    R120
168          KM   ROUTE FLOW FROM SUB-BASIN 120 TO SIGNAL BUTTE FRS
169          RS       1    FLOW      -1
170          RC    .025    .016    .025    2100    .005
171          RX       0       6      10    10.1    60.1    60.2    74.2    80.2
172          RY       8       5       5       0       0       5       5       8
             * DDM   ***** Updated *****

173          KK     140
174          KM   SUB-BASIN 140
175          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
176          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
177          KM     L = 1.61  Kb = .044  Adj. Slope =  149.0
178          BA    .598
179          LG    .310    .280   4.200    .440   5.000
180          UC    .421    .278
181          UA       0       5      16      30      65      77      84      90      94      97
182          UA     100
             * DDM   ***** Updated *****

183          KK     150
184          KM   SUB-BASIN 150
185          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
186          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
187          KM     L = 1.50  Kb = .047  Adj. Slope =  315.0
188          BA    .408
189          LG    .350    .360   5.100    .260   7.000
190          UC   1.579   1.417
191          UA       0       3       5       8      12      20      43      75      90      96
192          UA     100
             * DDM   ***** Preserved *****

193          KK    R150
194          KM   ROUTING OF FLOW FROM SUB-BASIN 150 THROUGH 160
195          RS      14    FLOW      -1
196          RC    .045    .045    .045   10895    .019
197          RX       0       1       2      14      34      46      47      48
198          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

199          KK     160
200          KM   SUB-BASIN 160
201          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
202          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
203          KM     L = 2.10  Kb = .047  Adj. Slope =  129.0
204          BA    .369
205          LG    .340    .330   4.150    .440   1.000
206          UC    .587    .655
207          UA       0       3       5       8      12      20      43      75      90      96
208          UA     100
             * DDM   ***** Updated *****
1                                    HEC-1 INPUT                                          PAGE  6

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

209          KK     180
210          KM   SUB-BASIN 180
211          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
212          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
213          KM     L = 2.42  Kb = .041  Adj. Slope =  140.0
214          BA   1.000
215          LG    .350    .350   4.150    .430    .000
216          UC    .571    .403
217          UA       0       3       5       8      12      20      43      75      90      96
218          UA     100
             * DDM   ***** Preserved *****

219          KK    180C
220          KM   HYDROGRAPH COMBINATION FOR SIGNAL BUTTE FRS
221          HC       5
             * DDM   ***** Updated *****

222          KK     350
223          KM   SUB-BASIN 350
224          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
225          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
226          KM     L = 2.22  Kb = .042  Adj. Slope =  311.0
227          BA    .935
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228          LG    .350    .350   4.600    .330   5.000
229          UC    .367    .239
230          UA       0       3       5       8      12      20      43      75      90      96
231          UA     100
             * DDM   ***** Preserved *****

232          KK    350R
233          KM   ROUTING OF FLOW FROM SUB-BASIN 350 TO 310
234          RS       5    FLOW      -1
235          RC    .045    .045    .045    5379    .024
236          RX       0       1       2      32     102     132     133     134
237          RY       2       2       2       0       0       2       2       2
             * DDM   ***** Updated *****

238          KK     310
239          KM   SUB-BASIN 310
240          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
241          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
242          KM     L = 2.70  Kb = .045  Adj. Slope =  283.5
243          BA    .555
244          LG    .350    .350   3.910    .480    .000
245          UC    .483    .511
246          UA       0       3       5       8      12      20      43      75      90      96
247          UA     100
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE  7

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

248          KK    C310
249          KM   HYDROGRAPH COMBINATION OF SUB-BASINS 350 & 310
250          HC       2
             * DDM   ***** Preserved *****

251          KK    R310
252          KM   ROUTING OF FLOW FROM SUB-BASIN 310 TO 320
253          RS       5    FLOW      -1
254          RC    .045    .045    .045    4711    .015
255          RX       0       1       2      32     102     132     133     134
256          RY     2.5     2.5     2.5       0       0     2.5     2.5     2.5
             * DDM   ***** Updated *****

257          KK     295
258          KM   SUB-BASIN 295
259          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
260          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
261          KM     L = 1.60  Kb = .047  Adj. Slope =  131.0
262          BA    .380
263          LG    .350    .350   4.900    .280    .000
264          UC    .450    .386
265          UA       0       3       5       8      12      20      43      75      90      96
266          UA     100
             * DDM   ***** Preserved *****

267          KK    295C
268          KM   HYDROGRAPH COMBINATION OF SUB-BASINS 310 & 295
269          HC       2
             * DDM   ***** Preserved *****

270          KK    R295
271          KM   ROUTE FLOW FROM SUB-BASIN 295 TO SUB-BASIN 240
272          KM   ADDITIONAL LEVEE ADDED TO PASS MOUNTAIN DIVERSION
273          RS       2    FLOW      -1
274          RC    .035    .025    .035    1600    .005
275          RX       0      20      40      65      77     147     387     388
276          RY       8       8       2       0       0       2       8       8
             * DDM   ***** Updated *****

277          KK     240
278          KM   SUB-BASIN 240
279          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
280          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
281          KM     L = 3.50  Kb = .041  Adj. Slope =  298.6
282          BA   1.036
283          LG    .350    .350   4.600    .330   2.000
284          UC    .500    .458
285          UA       0       3       5       8      12      20      43      75      90      96
286          UA     100
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE  8

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

287          KK    240C
288          KM   HYDROGRAPH COMBINATION OF SUB-BASINS 295 & 240
289          HC       2
             * DDM   ***** Preserved *****

290          KK    R240
291          KM   ROUTE FLOW FROM SUB-BASIN 240 TO SUB-BASIN 220
292          KM   PASS MOUNTAIN DIVERSION
293          RS       2    FLOW      -1
294          RC    .035    .025    .035    2100    .005
295          RX       0      15      30      60      88     558     563     568
296          RY      10      10      10       0       0      10      10      10
             * DDM   ***** Updated *****

297          KK     210
298          KM   SUB-BASIN 210
299          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
300          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
301          KM     L = 1.84  Kb = .045  Adj. Slope =  315.0
302          BA    .583
303          LG    .350    .350   7.000    .120   7.000
304          UC    .321    .232
305          UA       0       3       5       8      12      20      43      75      90      96
306          UA     100
             * DDM   ***** Preserved *****

307          KK    R210
308          KM   ROUTING OF FLOW FROM SUB-BASIN 210 TO SUB-BASIN 220
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309          RS        3    FLOW       -1
310          RC     .045    .045     .045    5484     .024
311          RX        0       1        2      14       29       41       42       43
312          RY        4       4        4       0        0        4        4        4
             * DDM   ***** Updated *****

313          KK      220
314          KM    SUB-BASIN 220
315          KM    24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
316          KM    THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
317          KM      L = 1.92  Kb = .044  Adj. Slope =  315.0
318          BA     .688
319          LG     .350    .330   7.300    .110   1.000
320          UC     .321    .218
321          UA        0       3        5       8       12       20       43       75       90       96
322          UA      100
             * DDM   ***** Preserved *****

323          KK     220C
324          KM    HYDROGRAPH COMBINATION FOR SUB-BASIN 240 & 220
325          HC        3
             * DDM   ***** Preserved *****
1                                          HEC-1 INPUT                                                PAGE  9

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

326          KK     R220
327          KM    ROUTE FLOW FROM SUB-BASIN 220 TO SUB-BASIN 200
328          KM    PASS MOUNTAIN DIVERSION
329          RS        1    FLOW       -1
330          RC     .035    .025     .035    1900     .005
331          RX        0       5       10      40       70       85       90       95
332          RY       10      10       10       0        0       10       10       10
             * DDM   ***** Updated *****

333          KK      190
334          KM    SUB-BASIN 190
335          KM    24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
336          KM    THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
337          KM      L = 1.91  Kb = .042  Adj. Slope =  315.0
338          BA     .918
339          LG     .350    .390   5.800    .190   8.000
340          UC     .321    .185
341          UA        0       3        5       8       12       20       43       75       90       96
342          UA      100
             * DDM   ***** Preserved *****

343          KK     R190
344          KM    ROUTING OF FLOW FROM SUB-BASIN 190 TO SUB-BASIN 200
345          RS        4    FLOW       -1
346          RC     .045    .045     .045    6948     .023
347          RX        0       1        2      17       37       52       53       54
348          RY        5       5        5       0        0        5        5        5
             * DDM   ***** Updated *****

349          KK      200
350          KM    SUB-BASIN 200
351          KM    24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
352          KM    THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
353          KM      L = 1.92  Kb = .042  Adj. Slope =  315.0
354          BA     .918
355          LG     .350    .390   5.800    .190   7.000
356          UC     .321    .185
357          UA        0       3        5       8       12       20       43       75       90       96
358          UA      100
             * DDM   ***** Preserved *****

359          KK     200C
360          KM    HYDROGRAPH COMBINATION FOR SUB-BASIN 220 & 200
361          HC        3
             * DDM   ***** Preserved *****

362          KK     R200
363          KM    ROUTE FLOW FROM SUB-BASIN 200 TO SIGNAL BUTTE FRS
364          RS        1    FLOW       -1
365          RC     .035    .025     .035    1300     .005
366          RX        0       1        2      17      117      132      133      134
367          RY        5       5        5       0        0        5        5        5
             * DDM   ***** Preserved *****
1                                          HEC-1 INPUT                                                PAGE 10

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

368          KK     C180
369          KM    HYDROGRAPH COMBINATION FOR SIGNAL BUTTE FRS
             *       1       2
370          HC        2
             * DDM   ***** Preserved *****

371          KK    SR180
372          KM    SIGNAL BUTTE FRS DATED 1/28/85
373          KM    OUTLET PIPE=36"RCP; L= 147';  INLET INV.=1690; OUTLET INV.=1687
374          KM    EMERGENCY SPILLWAY ELEV.=1712.4; PRINCIPLE SPILLWAY ELEV.=1701
375          KM    STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 250 ACRE-FEET
376          RS        1    STOR        0
377          SV        0       1      250      500      750     1060
378          SQ        0    106.5    125.5    137.5      146      160
379          SE       90      101    104.5      107      109    112.4
             * DDM   ***** Preserved *****

380          KK     R180
381          KM    ROUTE FLOW FROM SIGNAL BUTTE FRS TO SUB-BASIN 260
382          RS        2    FLOW       -1
383          RC     .035    .025     .035    1500     .003
384          RX        0       1        2    22.6     38.6     59.2       60       61
385          RY      9.3     9.3      9.3       0        0      9.3      9.3      9.3
             * DDM   ***** Updated *****

386          KK      260
387          KM    SUB-BASIN 260
388          KM    24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
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389          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
390          KM     L =  .81  Kb = .049  Adj. Slope =   68.0
391          BA    .267
392          LG    .300    .170   6.800    .160  15.000
393          UC    .363    .215
394          UA       0       5      16      30      65      77      84      90      94      97
395          UA     100
             * DDM   ***** Preserved *****

396          KK    260C
397          KM   HYDROGRAPH COMBINATION FOR OUTFLOW OF SIGNAL BUTTE FRS & SUB-BASIN 260
398          HC       2    .267
             * DDM   ***** Preserved *****

399          KK    R260
400          KM   ROUTE FLOW FROM SUB-BASIN 260 TO SUB-BASIN 280
401          RS       2    FLOW      -1
402          RC    .035    .025    .035    2300    .003
403          RX       0       1       2    23.4    43.4    64.8      65      66
404          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
             * DDM   ***** Updated *****
1                                    HEC-1 INPUT                                                    PAGE 11

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

405          KK     280
406          KM   SUB-BASIN 280
407          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
408          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
409          KM     L =  .77  Kb = .049  Adj. Slope =   84.0
410          BA    .304
411          LG    .300    .250   5.300    .290  15.000
412          UC    .333    .175
413          UA       0       5      16      30      65      77      84      90      94      97
414          UA     100
             * DDM   ***** Preserved *****

415          KK    280C
416          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 260 & SUB-BASIN 280
417          HC       2
             * DDM   ***** Preserved *****

418          KK    R280
419          KM   ROUTE FLOW FROM SUB-BASIN 280 TO SUB-BASIN 300
420          RS       2    FLOW      -1
421          RC    .035    .025    .035    2500    .003
422          RX       0       1       2    23.4    43.4    64.8      65      66
423          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
             * DDM   ***** Updated *****

424          KK     300
425          KM   SUB-BASIN 300
426          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
427          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
428          KM     L =  .80  Kb = .049  Adj. Slope =  100.0
429          BA    .297
430          LG    .320    .280   4.200    .480  11.000
431          UC    .333    .183
432          UA       0       5      16      30      65      77      84      90      94      97
433          UA     100

434          KK    C300
435          KM   HYDROGRAPH COMBINATION OF DIVERTED FLOW
436          HC       2

437          KK    D300
438          KM   DIVERT FLOW INTO OFFLINE BASIN AT SIGNAL BUTTE FLOODWAY TO BE COMBINED
439          KM   LATER WITH BASIN 305 AT END OF SIGNAL BUTTE FLOODWAY
440          KO       1
441          DT   DIV300
442          DI       0     300    5000
443          DQ       0       0    4700
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                                    PAGE 12

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

444          KK   RTDIV300
445          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
446          DR   DIV300
             * DDM   ***** Preserved *****

447          KK   SRDIV300
448          KM   RETRIEVE FLOW INTO BASIN AND BLEED OFF WITHIN 36 HOURS
449          KM
450          KO       1       2
451          RS       1    STOR       0
452          SV       0      60
453          SE       0      12
454          SQ       0     300
             * DDM   ***** Preserved *****

455          KK    300C
456          KM   HYDROGRAPH COMBINATION OF DIVERTED FLOW
457          HC       2
             * DDM   ***** Inserted *****

458          KK     305
459          KM   SUB-BASIN 305
460          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
461          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
462          KM     L = 1.20  Kb = .047  Adj. Slope =   92.0
463          BA    .377
464          LG    .340    .330   4.450    .380   8.000
465          UC    .438    .298
466          UA       0       3       5       8      12      20      43      75      90      96
467          UA     100

468          KK    D305
469          KM   DIVERT FLOW INTO OFFLINE BASIN TO BE COMBINED LATER WITH PASS MOUNTAIN
470          KM   DIVERSION FLOW AT END OF SIGNAL BUTTE FLOODWAY
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471          KO       1
472          DT    305D
473          DI       0    1000
474          DQ       0    1000
             * DDM   ***** Preserved *****

475          KK   RT305D
476          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
477          DR    305D
             * DDM   ***** Preserved *****

478          KK   SR305D
479          KM   RETRIEVE FLOW INTO BASIN AND BLEED OFF WITHIN 36 HOURS
480          KM
481          KO       1       2
482          RS       1    STOR       0
483          SV       0      25
484          SE       0       6
485          SQ       0     100
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                                    PAGE 13

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


486          KK    305C
487          KM   HYDROGRAPH COMBINATION OF SUB-BASIN 280 & 300
488          HC       3
             * DDM   ***** Preserved *****

489          KK    R305
490          KM   ROUTE FLOW FROM SUB-BASIN 300 TO START OF FLOODWAY CONCRETE CHANNEL
491          RS       2    FLOW      -1
492          RC    .035    .025    .035    2200    .003
493          RX       0       1       2    23.4    55.4    76.8     77     78
494          RY     9.7     9.7     9.7       0       0     9.7    9.7    9.7
             * DDM   ***** Preserved *****

495          KK   RR305
496          KM   CONTINUE TO ROUTE FLOW WITHIN CONCRETE CHANNEL TO SPOOK HILL FRS
497          RS       2    FLOW      -1
498          RC    .016    .016    .016    6050   .0146
499          RX       0       1       2     2.1    16.1    16.2     17     18
500          RY     7.5     7.5     7.5       0       0     7.5    7.5    7.5
             *      1       2
             * DDM   ***** Updated *****

501          KK     320
502          KM   SUB-BASIN 320
503          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
504          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .995
505          KM     L = 1.60  Kb = .042  Adj. Slope =  106.0
506          BA    .870
507          LG    .310    .290   4.500    .380  15.000
508          UC    .450    .240
509          UA       0       5      16      30      65      77      84      90      94      97
510          UA     100
             * DDM   ***** Preserved *****

511          KK    D320
512          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
513          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THREE SUBDIVISIONS
514          KM   SIERRA HEIGHTS       FALCON RIDGE    & MARBLE CREEK
515          KM        MAXIMUM VOLUME DIVERSION = 12.27acre-feet
             *      1
516          DT   BS320   12.27
517          DI       0   10000
518          DQ       0   10000
             * DDM   ***** Preserved *****

519          KK   RT320
520          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
521          DR   BS320
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                                    PAGE 14

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


522          KK   SR320
523          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
524          KM   12.27 ACRE-FEETx43560/36x3600=4.1cfs
             *      1
525          RS       1    STOR       0
526          SV       0     .01    12.3
527          SQ       0     4.2     4.2
             * DDM   ***** Preserved *****

528          KK    C320
529          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
530          HC       3
             * DDM   ***** Updated *****

531          KK     340
532          KM   SUB-BASIN 340
533          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
534          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
535          KM     L = 2.40  Kb = .042  Adj. Slope =  160.0
536          BA   1.449
537          LG    .280    .280   4.150    .520  21.000
538          UC    .512    .287
539          UA       0       5      16      30      65      77      84      90      94      97
540          UA     100
             * DDM   ***** Preserved *****

541          KK    D340
542          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
543          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THREE SUBDIVISIONS
544          KM   GRANDVIEW ESTATES    BOULDER MOUNTAIN & 33% OF MESA HIGHLANDS
545          KM        MAXIMUM VOLUME DIVERSION = 56.0 acre-feet
             *      1
546          DT   BS340      56
547          DI       0   10000
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548          DQ       0   10000
             * DDM   ***** Preserved *****

549          KK   RT340
550          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
551          DR   BS340
             * DDM   ***** Preserved *****

552          KK   SR340
553          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
554          KM    56.0 ACRE-FEETx43560/36x3600=18.8cfs
             *      1
555          RS       1    STOR       0
556          SV       0     .01      56
557          SQ       0    18.9    18.9
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE 15

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


558          KK    C340
559          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
560          HC       3
             * DDM   ***** Updated *****

561          KK     355
562          KM   SUB-BASIN 355
563          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
564          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
565          KM     L = 3.00  Kb = .044  Adj. Slope =  284.0
566          BA    .694
567          LG    .340    .340   4.450    .370   4.000
568          UC    .488    .494
569          UA       0       3       5       8      12      20      43      75      90      96
570          UA     100
             * DDM   ***** Preserved *****

571          KK    R355
572          KM   ROUTING OF FLOW FROM SUB-BASIN 355 TO SUB-BASIN 360
573          RS      10    FLOW      -1
574          RC    .045    .045    .045   11535    .023
575          RX       0       1       2      14      34      46      47      48
576          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

577          KK     370
578          KM   SUB-BASIN 370
579          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
580          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
581          KM     L = 2.90  Kb = .044  Adj. Slope =  294.6
582          BA    .667
583          LG    .340    .320   4.650    .330   9.000
584          UC    .454    .455
585          UA       0       3       5       8      12      20      43      75      90      96
586          UA     100
             * DDM   ***** Preserved *****

587          KK    R370
588          KM   ROUTING OF FLOW FROM SUB-BASIN 370 TO 360
589          RS      10    FLOW      -1
590          RC    .045    .045    .045   11782    .021
591          RX       0       1       2      14      29      41      42      43
592          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

593          KK     360
594          KM   SUB-BASIN 360
595          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
596          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
597          KM     L = 2.10  Kb = .048  Adj. Slope =  124.0
598          BA    .670
599          LG    .260    .270   4.100    .560  20.000
600          UC    .587    .466
601          UA       0       5      16      30      65      77      84      90      94      97
1                                    HEC-1 INPUT                                          PAGE 16

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

602          UA     100
             * DDM   ***** Preserved *****

603          KK    D360
604          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
605          KM   DETENTION/RETENTION BASINS LOCATED WITHIN 33% OF MESA HIGHLANDS
606          KM        MAXIMUM VOLUME DIVERSION = 28.6 acre-feet
             *      1
607          DT   BS360    28.6
608          DI       0   10000
609          DQ       0   10000
             * DDM   ***** Preserved *****

610          KK   RT360
611          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
612          DR   BS360
             * DDM   ***** Preserved *****

613          KK   SR360
614          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
615          KM    28.6 ACRE-FEETx43560/36x3600=9.6cfs
616          RS       1    STOR       0
617          SV       0     .01    28.6
618          SQ       0     9.6     9.6
             * DDM   ***** Preserved *****

619          KK    360C
620          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
621          HC       5
             * DDM   ***** Updated *****

622          KK     395
623          KM   SUB-BASIN 395
624          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
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625          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
626          KM     L = 1.60  Kb = .051  Adj. Slope =  215.8
627          BA    .198
628          LG    .330    .320   4.900    .300  10.000
629          UC    .383    .468
630          UA      0       3       5       8      12      20      43      75      90      96
631          UA    100
             * DDM   ***** Preserved *****

632          KK    R395
633          KM   ROUTING OF FLOW FROM SUB-BASIN 395 TO SUB-BASIN 380
634          RS      13    FLOW      -1
635          RC    .045    .045    .045   11300    .021
636          RX      0       1       2      11      26      35      36      37
637          RY      4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****
1                                        HEC-1 INPUT                                                    PAGE 17

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


638          KK     380
639          KM   SUB-BASIN 380
640          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
641          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
642          KM     L = 2.20  Kb = .048  Adj. Slope =  114.0
643          BA    .972
644          LG    .300    .310   4.150    .500   7.000
645          UC    .658    .444
646          UA      0       5      16      30      65      77      84      90      94      97
647          UA    100
             * DDM   ***** Preserved *****

648          KK    D380
649          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
650          KM   DETENTION/RETENTION BASINS LOCATED WITHIN 33% OF MESA HIGHLANDS
651          KM        MAXIMUM VOLUME DIVERSION = 28.6 acre-feet
             *      1
652          DT   BS380    28.6
653          DI      0   10000
654          DQ      0   10000
             * DDM   ***** Preserved *****

655          KK   RT380
656          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
657          DR   BS380
             * DDM   ***** Preserved *****

658          KK   SR380
659          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
660          KM    28.6 ACRE-FEETx43560/36x3600=9.6cfs
661          RS      1    STOR       0
662          SV      0     .01    28.6
663          SQ      0     9.6     9.6
             * DDM   ***** Preserved *****

664          KK    380C
665          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
666          HC      4
             * DDM   ***** Updated *****

667          KK     390
668          KM   SUB-BASIN 390
669          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
670          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
671          KM     L =  .70  Kb = .050  Adj. Slope =  299.4
672          BA    .244
673          LG    .300    .250   4.700    .380  18.000
674          UC    .204    .107
675          UA      0       5      16      30      65      77      84      90      94      97
676          UA    100
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                                    PAGE 18

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


677          KK    D390
678          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
679          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THUNDER MOUNTAIN ESTATES
680          KM        MAXIMUM VOLUME DIVERSION  = 3.5 acre-feet
             *      1
681          DT   BS390     3.5
682          DI      0   10000
683          DQ      0   10000
             * DDM   ***** Preserved *****

684          KK   RT390
685          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
686          DR   BS390
             * DDM   ***** Preserved *****

687          KK   SR390
688          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
689          KM     3.5 ACRE-FEETx43560/36x3600=1.2cfs
690          RS      1    STOR       0
691          SV      0     .01     3.5
692          SQ      0     1.2     1.2
             * DDM   ***** Preserved *****

693          KK    390C
694          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
695          HC      2
             * DDM   ***** Preserved *****

696          KK   RR390
697          KM   FROM SUB-BASIN 390 TO SUB-BASIN 400
698          RS      8    FLOW      -1
699          RC    .045    .045    .045    9029    .020
700          RX      0       1       2      14      19      31      32      33
701          RY      4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****
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 702          KK     400
 703          KM   SUB-BASIN 400
 704          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 705          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
 706          KM     L = 1.64  Kb = .046  Adj. Slope =  110.0
 707          BA    .616
 708          LG    .320    .320   3.130    .930   6.000
 709          UC    .592    .405
 710          UA       0       5      16      30      65      77      84      90      94      97
 711          UA     100
              * DDM   ***** Preserved *****

 712          KK    D400
 713          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
 714          KM   DETENTION/RETENTION BASIN LOCATED WITHIN SAGUARO VISTA SUBDIVISION
 715          KM        MAXIMUM VOLUME DIVERSION = 5.6 ACRE-FEET
              *      1
 716          DT   BS400     5.6
1                                        HEC-1 INPUT                                          PAGE 19

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

 717          DI       0   10000
 718          DQ       0   10000
              * DDM   ***** Preserved *****

 719          KK   RT400
 720          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
 721          DR   BS400
              * DDM   ***** Preserved *****

 722          KK   SR400
 723          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
 724          KM     5.6 ACRE-FEETx43560/36x3600 = 2 cfs
 725          RS       1    STOR       0
 726          SV       0     .01     5.6
 727          SQ       0       2       2
              * DDM   ***** Preserved *****

 728          KK    C400
 729          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
 730          HC       2
              * DDM   ***** Preserved *****

 731          KK   400C
 732          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
 733          HC       3
              * DDM   ***** Updated *****

 734          KK     385
 735          KM   SUB-BASIN 385
 736          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 737          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
 738          KM     L = 2.30  Kb = .044  Adj. Slope =  303.0
 739          BA    .647
 740          LG    .350    .370   5.600    .210  13.000
 741          UC    .375    .311
 742          UA       0       3       5       8      12      20      43      75      90      96
 743          UA     100
              * DDM   ***** Preserved *****

 744          KK    D385
 745          KM   DIVERT FLOW INTO SUB-BASINS 415 & 420
 746          DT   SF385
 747          DI       0   10000
 748          DQ       0    4000
              * DDM   ***** Preserved *****

 749          KK    385R
 750          KM   ROUTING OF FLOW DIVERSION FROM SUB-BASIN 385 INTO SUB-BASIN 420
 751          RS       9    FLOW      -1
 752          RC    .045    .045    .045   10233    .022
 753          RX       0       1       2      14      19      31      32      33
 754          RY       4       4       4       0       0       4       4       4
              * DDM   ***** Updated *****
1                                        HEC-1 INPUT                                          PAGE 20

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

 755          KK     420
 756          KM   SUB-BASIN 420
 757          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 758          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .995
 759          KM     L = 1.91  Kb = .042  Adj. Slope =  120.0
 760          BA    .849
 761          LG    .310    .270   3.880    .580  12.000
 762          UC    .512    .325
 763          UA       0       5      16      30      65      77      84      90      94      97
 764          UA     100
              * DDM   ***** Preserved *****

 765          KK    D420
 766          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
 767          KM   DETENTION/RETENTION BASINS LOCATED WITHIN GRAY FOX SUBDIVISION
 768          KM        MAXIMUM VOLUME DIVERSION = 8.65 acre-feet
              *      1
 769          DT   BS420    8.65
 770          DI       0   10000
 771          DQ       0   10000
              * DDM   ***** Preserved *****

 772          KK   RT420
 773          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
 774          DR   BS420
              * DDM   ***** Preserved *****

 775          KK   SR420
 776          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
 777          KM   38.55 ACRE-FEETx43560/36x3600=13cfs
 778          RS       1    STOR       0
 779          SV       0     .01   38.55
 780          SQ       0      13      13
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            * DDM   ***** Preserved *****

781         KK    420C
782         KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
783         HC       4   10.77
            * DDM   ***** Updated *****

784         KK     440
785         KM   SUB-BASIN 440
786         KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
787         KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
788         KM     L =  .40  Kb = .039  Adj. Slope =  315.0
789         BA    .080
790         LG    .190    .380   6.400    .140  13.000
791         UC    .129    .077
792         UA      0       3       5       8      12      20      43      75      90      96
793         UA    100
            * DDM   ***** Preserved *****
1                                   HEC-1 INPUT                                          PAGE 21

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

794         KK     R70
795         KM   ROUTE FLOW FROM SUB-BASIN 440 TO C108
796         RS       1    FLOW      -1
797         RC     .05    .035     .05    2250     .08
798         RX    1000    1025    1050    1070    1075    1095    1120    1145
799         RY      30    22.9    15.7      10      10    15.7    22.9      30
            * DDM   ***** Updated *****

800         KK     441
801         KM   SUB-BASIN 441
802         KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
803         KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
804         KM     L =  .28  Kb = .069  Adj. Slope =  315.0
805         BA    .010
806         LG    .300    .250   5.600    .220   5.000
807         UC    .150    .225
808         UA      0       5      16      30      65      77      84      90      94      97
809         UA    100
            * DDM   ***** Preserved *****

810         KK    C108
811         KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 440 & 441
812         HC       2
            * DDM   ***** Preserved *****

813         KK    DIV4
814         KM        SPLIT FLOW WITH TWO 42 INCH PIPES TO WEST AND SOUTH
            *      1
815         DT   SPLIT
816         DI       0      14      40      82     120     154     180
817         DQ       0       7      20      41      60      77      90
            * DDM   ***** Preserved *****

818         KK    R108
819         KM        ROUTE FLOW FROM SUB-BASIN C108 TO C67
820         RS       2    FLOW      -1
821         RC     .05    .035     .05    3200      .1
822         RX    1000    1025    1050    1070    1075    1095    1120    1145
823         RY      30    22.9    15.7      10      10    15.7    22.9      30
            * DDM   ***** Updated *****

824         KK     442
825         KM   SUB-BASIN 442
826         KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
827         KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
828         KM     L =  .83  Kb = .055  Adj. Slope =  274.2
829         BA    .100
830         LG    .300    .270   3.290    .770   5.000
831         UC    .258    .264
832         UA      0       5      16      30      65      77      84      90      94      97
833         UA    100
            * DDM   ***** Preserved *****
1                                   HEC-1 INPUT                                          PAGE 22

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

834         KK     C67
835         KM   COMBINE FLOW FROM SUB-BASIN 442 & DIV4
836         HC       2
            * DDM   ***** Preserved *****

837         KK    DIV6
838         KM        OFFLINE BASIN WITH 25 FOOT WEIR SET AT 2.5 FEET ABOVE BOTTOM OF CHANNEL
839         KM        FLOW CONTINUES BEYOND BASIN THROUGH 2-30" PIPES
            *      1
840         DT  BASIN4
841         DI       0      10      32      44    79.9   132.5     198   272.9   356.8
842         DQ       0       0       0       0    23.9    67.5     124   190.9   266.8
            * DDM   ***** Preserved *****

843         KK  RTDIV6
844         KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
845         DR  BASIN4
            * DDM   ***** Preserved *****

846         KK  RFDIV6
847         KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
848         KM     3.3 ACRE-FEETx43560/36x3600=1.1cfs
            *      1
849         RS       1    STOR       0
850         SV       0     .01     3.3
851         SQ       0     1.1     1.1
            * DDM   ***** Preserved *****

852         KK   CDIV6
853         KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
854         HC       2
            * DDM   ***** Updated *****
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855          KK     443
856          KM   SUB-BASIN 443
857          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
858          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
859          KM     L =  .71  Kb = .050  Adj. Slope =  315.0
860          BA    .080
861          LG    .250    .190   8.000    .080  10.000
862          UC    .196    .194
863          UA       0       5      16      30      65      77      84      90      94      97
864          UA     100
             * DDM   ***** Preserved *****

865          KK   DIV66
866          KM        DIVERT FLOW INTO 3 NATURAL WASHES WITH ONE 24" PIPE IN EACH WASH.
867          KM        EACH PIPE CAPACITY BASED ON 4 FEET OF HEAD
868          DT   WSH66
869          DI       0      78     100     200
870          DQ       0      78      78      78
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                                    PAGE 23

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

871          KK    R113
872          KM        ROUTE FLOW FROM C113 TO C114
873          RS       1    FLOW      -1
874          RC    .019    .019    .019    1300    .029
875          RX    1000    1004    1008    1012    1018    1022    1026    1030
876          RY      17   15.33   12.67      10      10   12.67   15.33      17
             * DDM   ***** Preserved *****

877          KK    C114
878          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 67 AND C113
879          HC       2
             * DDM   ***** Updated *****

880          KK     444
881          KM   SUB-BASIN 444
882          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
883          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
884          KM     L =  .33  Kb = .034  Adj. Slope =  315.0
885          BA    .040
886          LG    .130    .350   4.450    .320   1.000
887          UC    .112    .084
888          UA       0       3       5       8      12      20      43      75      90      96
889          UA     100
             * DDM   ***** Preserved *****

890          KK     R58
891          KM   ROUTE FLOW FROM SUB-BASIN 444 TO C107
892          RS       1    FLOW      -1
893          RC     .05    .035     .05    2370   .0516
894          RX    1000    1010    1020    1050    1055    1085    1095    1105
895          RY      19      18      17      10      10      17      18      19
             * DDM   ***** Updated *****

896          KK     445
897          KM   SUB-BASIN 445
898          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
899          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
900          KM     L =  .82  Kb = .036  Adj. Slope =  315.0
901          BA    .190
902          LG    .170    .320   3.470    .590   3.000
903          UC    .192    .130
904          UA       0       5      16      30      65      77      84      90      94      97
905          UA     100
             * DDM   ***** Preserved *****

906          KK    C107
907          KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 444 & 445
908          HC       2
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                                    PAGE 24

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

909          KK    R107
910          KM        ROUTE FLOW FROM C107 TO C109
911          RS       1    FLOW      -1
912          RC     .05    .035     .05     700   .0516
913          RX    1000    1010    1020    1050    1055    1085    1095    1105
914          RY      19      18      17      10      10      17      18      19
             * DDM   ***** Preserved *****

915          KK    RTB2
916          KM        RETRIEVE DIVERTED FLOW FROM BASIN 1
             *      1
917          DR   SPLIT
             * DDM   ***** Preserved *****

918          KK  RSPLIT
919          KM        ROUTE FLOW FROM SPLIT TO C109
920          RS       1    FLOW      -1
921          RC     .05    .035     .05     800     .05
922          RX    1000    1025    1050    1070    1075    1095    1120    1145
923          RY      30    22.9    15.7      10      10    15.7    22.9      30
             * DDM   ***** Updated *****

924          KK     446
925          KM   SUB-BASIN 446
926          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
927          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
928          KM     L =  .46  Kb = .061  Adj. Slope =  303.9
929          BA    .040
930          LG    .270    .250   4.500    .400  19.000
931          UC    .183    .189
932          UA       0       5      16      30      65      77      84      90      94      97
933          UA     100
             * DDM   ***** Preserved *****

934          KK    C109
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 935          KM        COMBINE HYDROGRAPHS FROM COMBINES C107 AND C108
 936          HC       3
              * DDM   ***** Preserved *****

 937          KK    DIV5
 938          KM        DIVERT FLOW INTO WASHES TOWARDS WEST
 939          KM        DIVERSION THROUGH 36" PIPE WITH 3 FEET OF HEAD
              *      1
 940          DT  WSH404
 941          DI       0    40.7    71.2   121.6     190     276   379.4   500.6
 942          DQ       0      35      35      35      35      35      35      35
              * DDM   ***** Preserved *****

 943          KK    R109
 944          KM        ROUTE FLOW FROM C109 TO C110
 945          RS       1    FLOW      -1
 946          RC    .019    .019    .019    3080     .05
 947          RX    1000    1005    1010    1015    1025    1030    1035    1040
 948          RY   13.75    12.5   11.25      10      10   11.25    12.5   13.75
              * DDM   ***** Updated *****
1                                          HEC-1 INPUT                                                    PAGE 25

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

 949          KK     447
 950          KM   SUB-BASIN 447
 951          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 952          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
 953          KM     L =  .49  Kb = .056  Adj. Slope =  221.0
 954          BA    .090
 955          LG    .250    .270   3.350    .870  30.000
 956          UC    .208    .145
 957          UA       0       5      16      30      65      77      84      90      94      97
 958          UA     100
              * DDM   ***** Preserved *****

 959          KK   RT404
 960          KM        RETRIEVE DIVERTED FLOW FOR WASH 109
 961          DR  WSH404
              * DDM   ***** Preserved *****

 962          KK    R404
 963          KM        ROUTE FLOW FROM C110 TO C110
 964          RS       5    FLOW      -1
 965          RC    .019    .019    .019    3540     .03
 966          RX    1000    1012    1016    1020    1025    1029    1033    1045
 967          RY      15      12      11      10      10      11      12      15
              * DDM   ***** Preserved *****

 968          KK    C110
 969          KM   COMBINE HYDROGRAPHS FROM SUB-BASIN 447 AND R404
 970          HC       3
              * DDM   ***** Preserved *****

 971          KK    R110
 972          KM        ROUTE FLOW FROM C110 TO C115
 973          RS       1    FLOW      -1
 974          RC    .019    .019    .019     580   .0291
 975          RX    1000    1012    1016    1020    1035    1039    1043    1055
 976          RY      15      12      11      10      10      11      12      15
              * DDM   ***** Preserved *****

 977          KK    C115
 978          KM        COMBINE HYDROGRAPHS FROM C114 AND C110
 979          HC       2
              * DDM   ***** Preserved *****

 980          KK    R115
 981          KM        ROUTE FLOW FROM C115 TO C119
 982          RS       1    FLOW      -1
 983          RC    .019    .019    .019    2125    .029
 984          RC    .019    .019    .019     580   .0291
 985          RX    1000    1012    1016    1020    1035    1039    1043    1055
 986          RY      15      12      11      10      10      11      12      15
              * DDM   ***** Updated *****
1                                          HEC-1 INPUT                                                    PAGE 26

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

 987          KK     448
 988          KM   SUB-BASIN 448
 989          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 990          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
 991          KM     L =  .36  Kb = .042  Adj. Slope =  315.0
 992          BA    .045
 993          LG    .170    .310   4.200    .390  11.000
 994          UC    .133    .102
 995          UA       0       5      16      30      65      77      84      90      94      97
 996          UA     100
              * DDM   ***** Updated *****

 997          KK     449
 998          KM   SUB-BASIN 449
 999          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1000          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
1001          KM     L =  .40  Kb = .054  Adj. Slope =  315.0
1002          BA    .050
1003          LG    .260    .280   3.500    .640   6.000
1004          UC    .167    .134
1005          UA       0       5      16      30      65      77      84      90      94      97
1006          UA     100
              * DDM   ***** Preserved *****

1007          KK   C6364
1008          KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 448 & 449
1009          HC       2
              * DDM   ***** Preserved *****

1010          KK   R6364
1011          KM   ROUTE FLOW FROM C116 AND SUB-BASINS 448 AND 449
1012          RS       4    FLOW      -1
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1013          RC     .05    .035     .05    4375   .0333
1014          RX    1000    1027    1053    1080    1090    1117    1143    1170
1015          RY      15   13.33   11.67      10      10   11.67   13.33      15
              * DDM   ***** Updated *****

1016          KK     450
1017          KM   SUB-BASIN 450
1018          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1019          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
1020          KM     L =  .85  Kb = .057  Adj. Slope =  210.5
1021          BA    .070
1022          LG    .340    .350   3.630    .570   4.000
1023          UC    .296    .383
1024          UA       0       3       5       8      12      20      43      75      90      96
1025          UA     100
              * DDM   ***** Updated *****
1                                        HEC-1 INPUT                                          PAGE 27

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

1026          KK     451
1027          KM   SUB-BASIN 451
1028          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1029          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
1030          KM     L =  .57  Kb = .063  Adj. Slope =  175.0
1031          BA    .025
1032          LG    .340    .340   3.290    .750   3.000
1033          UC    .271    .453
1034          UA       0       3       5       8      12      20      43      75      90      96
1035          UA     100
              * DDM   ***** Preserved *****

1036          KK    RT66
1037          KM        RETRIEVE DIVERTED FLOW FROM SUB-BASIN 66
1038          DR   WSH66
              * DDM   ***** Updated *****

1039          KK     452
1040          KM   SUB-BASIN 452
1041          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1042          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
1043          KM     L =  .43  Kb = .055  Adj. Slope =  315.0
1044          BA    .040
1045          LG    .260    .280   3.700    .550   9.000
1046          UC    .171    .166
1047          UA       0       5      16      30      65      77      84      90      94      97
1048          UA     100
              * DDM   ***** Preserved *****

1049          KK   C6465
1050          KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 443 AND 452
1051          HC       2
              * DDM   ***** Preserved *****

1052          KK   R6566
1053          KM        ROUTE FLOW FROM DIVERSIONS 65 AND 66 TO C116
1054          RS       2    FLOW      -1
1055          RC     .05    .035     .05    2435   .0282
1056          RX    1000    1045    1090    1150    1160    1220    1265    1310
1057          RY      25      23      20      10      10      20      23      25
              * DDM   ***** Preserved *****

1058          KK    C116
1059          KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 450 & 451 AND R6364 & R6465
1060          HC       4
              * DDM   ***** Preserved *****

1061          KK  BASIN5
1062          KM        RESERVOIR WITHIN PARCEL 31      2-48 INCH PIPES AT OUTFALL
1063          KM        BASIN 5 FEET DEEP
1064          RS       1    ELEV       0
1065          SV       0     4.5     9.9
1066          SQ       0      69     190
1067          SE       0     2.5       5
              * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 28

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

1068          KK    R116
1069          KM   ROUTE FLOW FROM C116 TO C117
1070          RS       2    FLOW      -1
1071          RC     .05    .035     .05    1300   .0333
1072          RX    1000    1100    1200    1300    1320    1420    1520    1620
1073          RY      13      12      11      10      10      11      12      13
              * DDM   ***** Updated *****

1074          KK     453
1075          KM   SUB-BASIN 453
1076          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1077          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
1078          KM     L =  .58  Kb = .058  Adj. Slope =  138.0
1079          BA    .060
1080          LG    .290    .300   3.290    .820  18.000
1081          UC    .275    .284
1082          UA       0       5      16      30      65      77      84      90      94      97
1083          UA     100
              * DDM   ***** Preserved *****

1084          KK    C117
1085          KM   COMBINE HYDROGRAPHS FROM SUB-BASIN 453 AND R116
1086          HC       2
              * DDM   ***** Preserved *****

1087          KK    C118
1088          KM   COMBINE HYDROGRAPHS FROM R115 AND C117
1089          HC       2
              * DDM   ***** Preserved *****

1090          KK    R118
1091          KM        ROUTE FLOW FROM C118 TO  DIV7
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1092          RS       1    FLOW      -1
1093          RC    .019    .019    .019    1500    .024
1094          RX    1000    1012    1016    1020    1035    1039    1043    1055
1095          RY      15      12      11      10      10      11      12      15
              * DDM   ***** Preserved *****

1096          KK    DIV7
1097          KM        OFFLINE BASIN AT NORTH MOUNTAIN RIDGE   FLOWS ENTER BASIN OVER
1098          KM        30' WEIR SET AT 5.3' ABOVE THE CHANNEL BOTTOM
              *      1
1099          DT  BASIN6
1100          DI       0     363     487     563     645     844
1101          DQ       0       3      47      83     125     244
              * DDM   ***** Preserved *****

1102          KK  RTDIV7
1103          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
1104          DR  BASIN6
              * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 29

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


1105          KK  RFDIV7
1106          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
1107          KM     3.6 ACRE-FEETx43560/36x3600=1.2cfs
1108          RS       1    STOR       0
1109          SV       0     .01     3.6
1110          SQ       0     1.2     1.2
              * DDM   ***** Preserved *****

1111          KK   CDIV7
1112          KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
1113          HC       2
              * DDM   ***** Updated *****

1114          KK     454
1115          KM   SUB-BASIN 454
1116          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1117          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1118          KM     L = 1.23  Kb = .051  Adj. Slope =  163.0
1119          BA    .180
1120          LG    .300    .310   3.780    .560  14.000
1121          UC    .379    .395
1122          UA       0       5      16      30      65      77      84      90      94      97
1123          UA     100
              * DDM   ***** Preserved *****

1124          KK    C119
1125          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 454 AND C119
              *      1       2
1126          HC       2
              * DDM   ***** Preserved *****

1127          KK    R454
1128          KM   ROUTE FLOW FROM C119 TO 415C
1129          RS       8    FLOW      -1
1130          RC    .045    .035    .045    6000    .005
1131          RX    1000    1010    1020    1036    1041    1057    1067    1077
1132          RY      15    14.5      14      10      10      14    14.5      15
              * DDM   ***** Updated *****

1133          KK     415
1134          KM   SUB-BASIN 415
1135          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1136          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
1137          KM     L = 2.10  Kb = .046  Adj. Slope =  266.0
1138          BA    .448
1139          LG    .310    .270   4.250    .480  15.000
1140          UC    .404    .387
1141          UA       0       5      16      30      65      77      84      90      94      97
1142          UA     100
              * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 30

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


1143          KK   RT385
1144          KM   RETRIEVE FLOW FROM DIVERSION OF SUB-BASIN 385 INTO SUB-BASIN 415
1145          DR   SF385
              * DDM   ***** Preserved *****

1146          KK   RR385
1147          KM   ROUTING OF SPLIT FLOW FROM SUB-BASIN 385 TO SUB-BASIN 415
1148          RS       5    FLOW      -1
1149          RC    .045    .045    .045    5878    .024
1150          RX       0       1       2      14      19      31      32      33
1151          RY       4       4       4       0       0       4       4       4
              * DDM   ***** Preserved *****

1152          KK    415C
1153          KM   HYDROGRAPH COMBINATION OF SUB-BASINS 415, R454 & SPLIT FLOW FROM 385
1154          HC       3
              * DDM   ***** Preserved *****

1155          KK    R415
1156          KM   ROUTING OF FLOW FROM 415C TO 455C
1157          RS       3    FLOW      -1
1158          RC    .045    .045    .045    3900    .021
1159          RX       0       1       2      14      44      56      57      58
1160          RY       4       4       4       0       0       4       4       4
              * DDM   ***** Updated *****

1161          KK     455
1162          KM   SUB-BASIN 455
1163          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1164          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .993
1165          KM     L = 1.70  Kb = .041  Adj. Slope =  146.0
1166          BA   1.111
1167          LG    .270    .280   3.700    .640  24.000
1168          UC    .421    .204
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1169        UA       0       5      16      30      65      77      84      90      94      97
1170        UA     100
            * DDM   ***** Preserved *****

1171        KK    D455
1172        KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
1173        KM   DETENTION/RETENTION BASINS LOCATED WITHIN LAS SENDAS ADDENDUM III
1174        KM   FOR BASIN #: 30      34      43      47&58
1175        KM        MAXIMUM VOLUME DIVERSION = 74.1 acre-feet
            *      1
1176        DT   BS455    74.1
1177        DI       0   10000
1178        DQ       0   10000
            * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 31

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


1179        KK   RT455
1180        KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
1181        DR   BS455
            * DDM   ***** Preserved *****

1182        KK   SR455
1183        KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
1184        KM    74.1 ACRE-FEETx43560/36x3600=25cfs
1185        RS       1    STOR       0
1186        SV       0     .01    74.1
1187        SQ       0      25      25
            * DDM   ***** Preserved *****

1188        KK    C455
1189        KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 455 AND DIVERTED BASIN STORAGE OF 455
1190        HC       2
            * DDM   ***** Preserved *****

1191        KK    455C
1192        KM  HYDROGRAPH COMBINATION OF 420C, R415 AND C455
            *      1       2
1193        HC       3
            * DDM   ***** Preserved *****

1194        KK   SR440
1195        KM   SPOOK HILL FRS PLANS DATED 6/15/77
1196        KM   OUTLET PIPE=7'x7.5'RCBC; L=70 INLET INV.=1566; OUTLET INV.=1566
1197        KM   EMERGENCY SPILLWAY ELEV.=1582; PRINCIPLE SPILLWAY ELEV.=1577.5
1198        KM   STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 200 ACRE-FEET
1199        RS       1    STOR       0
1200        SV       0      10     100     300     500     680
1201        SQ       0     640     720     780     825     860
1202        SE      66    77.5      79    80.2    81.2      82
            * DDM   ***** Preserved *****

1203        KK   RR455
1204        KM   ROUTE FLOW FROM SPOOK HILL FRS TO SUB-BASIN 462
1205        RS       9    FLOW      -1
1206        RC    .035    .025    .035    9200    .002
1207        RX       0       1       2      28      58      84      85      86
1208        RY    13.5    13.5    13.5       0       0    13.5    13.5    13.5
            * DDM   ***** Updated *****

1209        KK     456
1210        KM   SUB-BASIN 456
1211        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1212        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
1213        KM     L =  .94  Kb = .045  Adj. Slope =  315.0
1214        BA    .260
1215        LG    .300    .380   5.600    .200  12.000
1216        UC    .217    .139
1217        UA       0       5      16      30      65      77      84      90      94      97
1218        UA     100
            * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 32

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


1219        KK    DIV1
1220        KM        DIVERT FLOW INTO OFFLINE DETENTION BASIN
1221        KM        WEIR FOR BASIN SET AT 4 FEET ABOVE CHANNEL BOTTOM
            *      1
1222        DT  BASIN1
1223        DI       0    11.1   127.9   234.4   577.7   789.9  1025.5  1280.9  1555.7
1224        DQ       0       0       0    47.7     248   381.8   533.6   701.5     884
            * DDM   ***** Preserved *****

1225        KK    DIV2
1226        KM        SPLIT OUT FLOW FOR WASHES THAT FLOW TO THE SOUTH FROM
1227        KM        WASHES THAT DRAIN TO THE WES, SOUTHERN WASHES FED BY 30" & 24" PIPE
1228        DT    WA30
1229        DI       0    11.1   127.9   189.6   329.7     408   491.9   579.4   671.7
1230        DQ       0    11.1    38.4    48.2      63    69.5      76      81      86
            * DDM   ***** Preserved *****

1231        KK    R456
1232        KM        ROUTE FLOW FROM SUB-BASIN 51 TO C101
1233        RS       2    FLOW      -1
1234        RC     .05    .035     .05    3800    .044
1235        RX    1000    1010    1020    1036    1041    1057    1067    1077
1236        RY   14.88   14.44      14      10      10      14   14.44   14.88
            * DDM   ***** Updated *****

1237        KK     457
1238        KM   SUB-BASIN 457
1239        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1240        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1241        KM     L = 1.01  Kb = .045  Adj. Slope =  308.8
1242        BA    .190
1243        LG    .270    .330   3.950    .460   6.000
1244        UC    .237    .195
1245        UA       0       5      16      30      65      77      84      90      94      97
1246        UA     100
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            * DDM   ***** Preserved *****

1247        KK    C101
1248        KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 50 AND 51
1249        HC       2
            * DDM   ***** Preserved *****

1250        KK    DIV3
1251        KM        RESERVOIR AT THE EDGE OF THE PROPERTY   FLOW FROM CHANNEL
1252        KM        DIVERTED  INTO OFFLINE BASIN A 25' WEIR SET AT ELEVATION 1808 FT
            *      1
1253        DT  BASIN2
1254        DI       0      36      70     110     180   313.5     402   500.9
1255        DQ       0       0       0       0       0    67.5     124   190.9
            * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                        PAGE 33

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


1256        KK  RTDIV3
1257        KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
1258        DR  BASIN2
            * DDM   ***** Preserved *****

1259        KK  RFDIV3
1260        KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
1261        KM     5.0 ACRE-FEETx43560/36x3600=1.7cfs
1262        RS       1    STOR       0
1263        SV       0     .01       5
1264        SQ       0     1.7     1.7
            * DDM   ***** Preserved *****

1265        KK   CDIV3
1266        KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
1267        HC       2
            * DDM   ***** Preserved *****

1268        KK    R101
1269        KM        ROUTE FLOW FROM SUBBASIN C101 TO C103
1270        RS       1    FLOW      -1
1271        RC     .05    .035     .05    1450     .05
1272        RX    1000    1010    1020    1036    1041    1057    1067    1077
1273        RY      15    14.5      14      10      10      14    14.5      15
            * DDM   ***** Updated *****

1274        KK     458
1275        KM   SUB-BASIN 458
1276        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1277        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1278        KM     L =  .76  Kb = .048  Adj. Slope =  299.0
1279        BA    .190
1280        LG    .290    .330   5.800    .190   6.000
1281        UC    .204    .131
1282        UA       0       5      16      30      65      77      84      90      94      97
1283        UA     100
            * DDM   ***** Preserved *****

1284        KK    C103
1285        KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 55 AND C101
1286        HC       2
            * DDM   ***** Preserved *****

1287        KK    R103
1288        KM        ROUTE FLOW FROM SUBBASIN C103 TO C106
1289        RS       1    FLOW      -1
1290        RC     .05    .035     .05     900     .03
1291        RX    1000    1010    1020    1030    1050    1060    1070    1080
1292        RY   13.16   12.83    12.5      10      10    12.5   12.83   13.16
            * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                        PAGE 34

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


1293        KK    RT30
1294        KM        RETRIEVE DIVERTED FLOW FOR WASH BELOW 30 INCH PIPE
1295        DR    WA30
            * DDM   ***** Preserved *****

1296        KK     R30
1297        KM        ROUTE FLOW FROM WASH DIVERSION TO COMBINE C52
1298        RS       1    FLOW      -1
1299        RC     .05    .035     .05    1630     .05
1300        RX    1000    1010    1020    1036    1041    1057    1067    1077
1301        RY      15    14.5      14      10      10      14    14.5      15
            * DDM   ***** Preserved *****

1302        KK    RTB1
1303        KM        RETRIEVE DIVERTED FLOW FROM BASIN 1
            *      1       2
1304        DR  BASIN1
            * DDM   ***** Preserved *****

1305        KK      B1
1306        KM        ROUTE FLOW THROUGH OFFLINE DETENTION BASIN
1307        KM        FLOW OUTLETS THROUGH A 30 INCH OUTLET PIPE
            *      1       2
1308        RS       1    ELEV       0
1309        SV              .7     1.4     2.3     2.7     3.2
1310        SQ       0       5      16      28    32.5      37
1311        SE       0       1       2       3     3.5       4
            * DDM   ***** Preserved *****

1312        KK     RB1
1313        KM        ROUTE FLOW FROM BASIN DIVERSION TO COMBINE C52
1314        RS       2    FLOW      -1
1315        RC     .05    .035     .05    1720     .05
1316        RX    1000    1010    1020    1036    1041    1057    1067    1077
1317        RY      15    14.5      14      10      10      14    14.5      15
            * DDM   ***** Preserved *****

1318        KK    CDIV
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1319          KM        COMBINE FLOWS FROM WA30 AND BASIN 1
1320          HC       2      .12
              * DDM   ***** Updated *****

1321          KK     459
1322          KM   SUB-BASIN 459
1323          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1324          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
1325          KM     L =  .35  Kb = .052  Adj. Slope =  251.6
1326          BA    .030
1327          LG    .220    .300   3.330    .710   8.000
1328          UC    .162    .157
1329          UA       0       5      16      30      65      77      84      90      94      97
1330          UA     100
              * DDM   ***** Preserved *****
1                                          HEC-1 INPUT                                          PAGE 35

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


1331          KK     C52
1332          KM        COMBINE FLOWS FROM SUB-BASIN 52 WA30 AND BASIN 1
1333          HC       2
              * DDM   ***** Preserved *****

1334          KK     R52
1335          KM        ROUTE FLOW FROM SUBBASIN 52 TO C102
1336          RS       2    FLOW      -1
1337          RC     .05    .035     .05    2000     .05
1338          RX    1000    1010    1020    1036    1041    1057    1067    1077
1339          RY      15    14.5      14      10      10      14    14.5      15
              * DDM   ***** Updated *****

1340          KK     460
1341          KM   SUB-BASIN 460
1342          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1343          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1344          KM     L =  .62  Kb = .058  Adj. Slope =  194.0
1345          BA    .140
1346          LG    .250    .260   3.740    .690  27.000
1347          UC    .242    .160
1348          UA       0       5      16      30      65      77      84      90      94      97
1349          UA     100
              * DDM   ***** Preserved *****

1350          KK    C102
1351          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 52 AND 53
1352          HC       2
              * DDM   ***** Preserved *****

1353          KK  BASIN3
1354          KM        RESERVOIR AT CLUBHOUSE LOCATION 1-30 INCH PIPE AT OUTFALL
1355          KM        BOTTOM OF BASIN AT 6 FEET ABOVE 1795 ELEVATION
1356          RS       1    ELEV       0
1357          SA       0       0       0       0     .34    1.59    1.81    1.96    2.13     2.3
              *      0       0       0       0    1.14    3.25    5.52    9.23
1358          SQ       0      22      45    47.4      48      51      57      62      67      73
1359          SE    1795  1797.5    1800  1800.4  1800.5    1801    1802    1803    1804  1805.5
              * DDM   ***** Preserved *****

1360          KK      R3
1361          KM        ROUTE FLOW FROM C102 to C106
1362          RS       4    FLOW      -1
1363          RC     .05     .03     .05    2750   .0375
1364          RX    1000    1010    1020    1052    1086    1118    1128    1138
1365          RY    19.2    18.4      18      10      10      18    18.4    19.2
              * DDM   ***** Updated *****

1366          KK     461
1367          KM   SUB-BASIN 461
1368          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1369          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1370          KM     L =  .83  Kb = .052  Adj. Slope =  181.0
1371          BA    .120
1                                          HEC-1 INPUT                                          PAGE 36

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

1372          LG    .270    .250   4.250    .450  21.000
1373          UC    .271    .250
1374          UA       0       5      16      30      65      77      84      90      94      97
1375          UA     100
              * DDM   ***** Preserved *****

1376          KK    C104
1377          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 54 AND R102
1378          HC       2
              * DDM   ***** Preserved *****

1379          KK    C106
1380          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN C103 AND C104
1381          HC       2
              * DDM   ***** Preserved *****

1382          KK    R106
1383          KM        ROUTE FLOW FROM C106 TO C49
1384          RS       2    FLOW      -1
1385          RC     .05    .035     .05    3950    .033
1386          RX    1000    1010    1020    1030    1050    1060    1070    1080
1387          RY   13.16   12.83    12.5      10      10    12.5   12.83   13.16
              * DDM   ***** Updated *****

1388          KK     462
1389          KM   SUB-BASIN 462
1390          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1391          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
1392          KM     L =  .97  Kb = .045  Adj. Slope =  297.7
1393          BA    .301
1394          LG    .300    .330   5.300    .240  12.000
1395          UC    .225    .137
1396          UA       0       5      16      30      65      77      84      90      94      97
1397          UA     100
              * DDM   ***** Preserved *****
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1398          KK     C56
1399          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 56 AND C106
              *      1       2
1400          HC       2
              * DDM   ***** Updated *****

1401          KK     480
1402          KM   SUB-BASIN 480
1403          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1404          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
1405          KM     L = 1.21  Kb = .042  Adj. Slope =  165.0
1406          BA    .731
1407          LG    .270    .270   3.580    .730  27.000
1408          UC    .325    .148
1409          UA       0       5      16      30      65      77      84      90      94      97
1410          UA     100
              * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 37

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


1411          KK    D480
1412          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
1413          KM   DETENTION/RETENTION BASINS LOCATED WITHIN LAS SENDAS ADDENDUM III
1414          KM   FOR BASIN #: 18 & 26
1415          KM        MAXIMUM VOLUME DIVERSION = 16.5 acre-feet
              *      1
1416          DT   BS480    16.5
1417          DI       0   10000
1418          DQ       0   10000
              * DDM   ***** Preserved *****

1419          KK   RT480
1420          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
1421          DR   BS480
              * DDM   ***** Preserved *****

1422          KK   SR480
1423          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
1424          KM    16.5 ACRE-FEETx43560/36x3600=5.5cfs
1425          RS       1    STOR       0
1426          SV       0     .01    16.5
1427          SQ       0     5.6     5.6
              * DDM   ***** Preserved *****

1428          KK    C480
1429          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
1430          HC       2
              * DDM   ***** Preserved *****

1431          KK    480C
1432          KM   HYDROGRAPH COMBINATION FOR THE ENTIRE WATERSHED AT THE SALT RIVER
1433          HC       3    2.09
              * DDM   ***** Preserved *****

1434          KK   RR480
1435          KM   ROUTE FLOW FROM SUB-BASIN 480 TO SUB-BASIN 500
1436          RS       1    FLOW      -1
1437          RC    .025    .025    .025    6500     .05
1438          RX       0       1       2      28      58      84      85      86
1439          RY    13.5    13.5    13.5       0       0    13.5    13.5    13.5
              * DDM   ***** Updated *****

1440          KK     500
1441          KM   SUB-BASIN 500
1442          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1443          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
1444          KM     L = 2.77  Kb = .042  Adj. Slope =  286.8
1445          BA    .930
1446          LG    .350    .400   6.000    .170   9.000
1447          UC    .421    .333
1448          UA       0       3       5       8      12      20      43      75      90      96
1449          UA     100
              * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 38

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


1450          KK    500C
1451          KM   HYDROGRAPH COMBINATION FOR THE ENTIRE WATERSHED AT THE SALT RIVER
1452          HC       2    2.84
1453          ZZ
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SCHEMATIC DIAGRAM OF STREAM NETWORK

```
INPUT
 LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW
  NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

  43         10
              V
              V
  53        R10
              .
              .
  59          .          20
              .           .
              .           .
  69        C20............
              .
              .
  72          .          40
              .           .
              .           .
  82          .           .          60
              .           .           .
              .           .           .
  92        60C........................
              V
              V
  95       SR60
              V
              V
 104        R60
              V
              V
 110       RR60
              .
              .
 116          .          80
              .           .
              .           .
 126        80C............
              V
              V
 129        R80
              .
              .
 135          .         100
              .           .
              .           .
 145       100C............
              V
              V
 148       R100
              .
              .
 154          .         120
              .           .
              .           .
 164       120C............
              V
              V
 167       R120
              .
              .
 173          .         140
              .           .
              .           .
 183          .           .         150
              .           .           V
              .           .           V
 193          .           .        R150
              .           .           .
              .           .           .
 199          .           .           .         160
              .           .           .           .
              .           .           .           .
 209          .           .           .           .         180
              .           .           .           .           .
              .           .           .           .           .
 219       180C..............................................
              .
              .
 222          .         350
              .           V
              .           V
 232          .        350R
              .           .
              .           .
 238          .           .         310
              .           .           .
              .           .           .
 248          .        C310............
              .           V
              .           V
 251          .        R310
              .           .
              .           .
 257          .           .         295
              .           .           .
              .           .           .
 267          .        295C............
              .           V
              .           V
 270          .        R295
              .           .
              .           .
 277          .           .         240
              .           .           .
              .           .           .
 287          .        240C............
              .           V
              .           V
 290          .        R240
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                .          .
                .          .
297             .          .        210
                .          .          V
                .          .          V
307             .          .       R210
                .          .          .
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313             .          .          .        220
                .          .          .          .
                .          .          .          .
323             .       220C.......................
                .          V
                .          V
326             .       R220
                .          .
                .          .
333             .          .        190
                .          .          V
                .          .          V
343             .          .       R190
                .          .          .
                .          .          .
349             .          .          .        200
                .          .          .          .
                .          .          .          .
359             .       200C.......................
                .          V
                .          V
362             .       R200
                .          .
                .          .
368          C180............
                V
                V
371         SR180
                V
                V
380          R180
                .
                .
386             .        260
                .          .
                .          .
396          260C...........
                V
                V
399          R260
                .
                .
405             .        280
                .          .
                .          .
415          280C...........
                V
                V
418          R280
                .
                .
424             .        300
                .          .
                .          .
434          C300...........
                .
                .
441             .------->   DIV30
437          D300
                .
                .
446             .          .<-------   DIV30
444             .       RTDIV
                .          V
                .          V
447             .       SRDIV
                .          .
                .          .
455          300C...........
                .
                .
458             .        305
                .          .
                .          .
472             .          .------->    305D
468             .       D305
                .          .
                .          .
477             .          .          .<-------    305D
475             .          .       RT305
                .          .          V
                .          .          V
478             .          .       SR305
                .          .          .
                .          .          .
486          305C........................
                V
                V
489          R305
                V
                V
495         RR305
                .
                .
501             .        320
                .          .
                .          .
516             .          .------->   BS320
511             .       D320
                .          .
                .          .
521             .          .          .<-------   BS320
519             .          .       RT320
                .          .          V
                .          .          V
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522          .          .       SR320
             .          .          .
             .          .          .
528       C320.......................
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             .
531          .        340
             .          .
             .          .
546          .          .-------->   BS340
541          .       D340
             .          .
             .          .
551          .          .          .<-------   BS340
549          .          .       RT340
             .          .          V
             .          .          V
552          .          .       SR340
             .          .          .
             .          .          .
558       C340.......................
             .
             .
561          .        355
             .          V
             .          V
571          .       R355
             .          .
             .          .
577          .          .        370
             .          .          V
             .          .          V
587          .          .       R370
             .          .          .
             .          .          .
593          .          .          .         360
             .          .          .          .
             .          .          .          .
607          .          .          .          .-------->   BS360
603          .          .          .       D360
             .          .          .          .
             .          .          .          .
612          .          .          .          .          .<-------   BS360
610          .          .          .          .       RT360
             .          .          .          .          V
             .          .          .          .          V
613          .          .          .          .       SR360
             .          .          .          .          .
             .          .          .          .          .
619       360C.............................................
             .
             .
622          .        395
             .          V
             .          V
632          .       R395
             .          .
             .          .
638          .          .        380
             .          .          .
             .          .          .
652          .          .          .-------->   BS380
648          .          .       D380
             .          .          .
             .          .          .
657          .          .          .          .<-------   BS380
655          .          .          .       RT380
             .          .          .          V
             .          .          .          V
658          .          .          .       SR380
             .          .          .          .
             .          .          .          .
664       380C...................................
             .
             .
667          .        390
             .          .
             .          .
681          .          .-------->   BS390
677          .       D390
             .          .
             .          .
686          .          .          .<-------   BS390
684          .          .       RT390
             .          .          V
             .          .          V
687          .          .       SR390
             .          .          .
             .          .          .
693          .       390C............
             .          V
             .          V
696          .      RR390
             .          .
             .          .
702          .          .        400
             .          .          .
             .          .          .
716          .          .          .-------->   BS400
712          .          .       D400
             .          .          .
             .          .          .
721          .          .          .          .<-------   BS400
719          .          .          .       RT400
             .          .          .          V
             .          .          .          V
722          .          .          .       SR400
             .          .          .          .
             .          .          .          .
728          .          .       C400............
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731       400C........................
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734          385
746          .------->  SF385
744       D385
             V
             V
749       385R
755          420
769          .------->  BS420
765       D420
774                  .<-------  BS420
772                RT420
                       V
                       V
775                SR420
781    420C.................................

784          440
             V
             V
794          R70
800          441
810       C108............
815          .------->  SPLIT
813       DIV4
             V
             V
818       R108
824          442
834        C67............
840          .------->  BASIN4
837       DIV6
845                  .<-------  BASIN4
843          RTDIV6
                       V
                       V
846          RFDIV6
852      CDIV6............
855          443
868          .------->  WSH66
865         DIV66
                       V
                       V
871         R113
877       C114............
880          444
                       V
                       V
890          R58
896                     445
906         C107............
                       V
                       V
909         R107
917                  .<-------  SPLIT
915                RTB2
                       V
                       V
918              RSPLIT
924                             446
934         C109........................
940          .------->  WSH404
937         DIV5
                       V
                       V
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943          .          .        R109
             .          .          .
949          .          .          .        447
             .          .          .          .
             .          .          .          .
961          .          .          .          .          .<-------  WSH404
959          .          .          .          .      RT404
             .          .          .          .          V
             .          .          .          .          V
962          .          .          .          .       R404
             .          .          .          .          .
             .          .          .          .          .
968          .          .        C110.......................
             .          .          V
             .          .          V
971          .          .        R110
             .          .          .
             .          .          .
977          .       C115............
             .          V
             .          V
980          .       R115
             .          .
             .          .
987          .          .        448
             .          .          .
             .          .          .
997          .          .          .        449
             .          .          .          .
             .          .          .          .
1007         .          .      C6364............
             .          .          V
             .          .          V
1010         .          .      R6364
             .          .          .
             .          .          .
1016         .          .          .        450
             .          .          .          .
             .          .          .          .
1026         .          .          .          .        451
             .          .          .          .          .
             .          .          .          .          .
1038         .          .          .          .          .          .<-------   WSH66
1036         .          .          .          .          .       RT66
             .          .          .          .          .          .
             .          .          .          .          .          .
1039         .          .          .          .          .          .         452
             .          .          .          .          .          .           .
             .          .          .          .          .          .           .
1049         .          .          .          .          .      C6465............
             .          .          .          .          .          V
             .          .          .          .          .          V
1052         .          .          .          .          .      R6566
             .          .          .          .          .          .
             .          .          .          .          .          .
1058         .          .        C116.................................
             .          .          V
             .          .          V
1061         .          .      BASIN5
             .          .          V
             .          .          V
1068         .          .       R116
             .          .          .
             .          .          .
1074         .          .          .        453
             .          .          .          .
             .          .          .          .
1084         .          .        C117............
             .          .          .
             .          .          .
1087         .       C118............
             .          V
             .          V
1090         .       R118
             .          .
             .          .
1099         .          .-------> BASIN6
1096         .       DIV7
             .          .
             .          .
1104         .          .          .<-------  BASIN6
1102         .          .      RTDIV7
             .          .          V
             .          .          V
1105         .          .      RFDIV7
             .          .          .
             .          .          .
1111         .      CDIV7............
             .          .
             .          .
1114         .          .        454
             .          .          .
             .          .          .
1124         .       C119............
             .          V
             .          V
1127         .       R454
             .          .
             .          .
1133         .          .        415
             .          .          .
             .          .          .
1145         .          .          .          .<-------   SF385
1143         .          .          .      RT385
             .          .          .          V
             .          .          .          V
1146         .          .          .      RR385
             .          .          .          .
             .          .          .          .
1152         .       415C.......................
             .          V
             .          V
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1155          .        R415
              .           .
              .           .
1161          .           .        455
              .           .          .
              .           .          .
1176          .           .          .-------->   BS455
1171          .           .       D455
              .           .          .
              .           .          .
1181          .           .          .           .<-------   BS455
1179          .           .          .       RT455
              .           .          .          V
              .           .          .          V
1182          .           .          .       SR455
              .           .          .          .
              .           .          .          .
1188          .           .       C455............
              .           .          .
              .           .          .
1191       455C........................
              V
              V
1194      SR440
              V
              V
1203      RR455
              .
              .
1209          .        456
              .           .
              .           .
1222          .           .-------->  BASIN1
1219          .        DIV1
              .           .
              .           .
1228          .           .-------->    WA30
1225          .        DIV2
              .           V
              .           V
1231          .        R456.
              .           .
              .           .
1237          .           .        457
              .           .          .
              .           .          .
1247          .        C101............
              .           .
              .           .
1253          .           .-------->  BASIN2
1250          .        DIV3
              .           .
              .           .
1258          .           .          .<-------  BASIN2
1256          .           .      RTDIV3
              .           .          V
              .           .          V
1259          .           .      RFDIV3
              .           .          .
              .           .          .
1265          .       CDIV3............
              .           V
              .           V
1268          .        R101
              .           .
              .           .
1274          .           .        458
              .           .          .
              .           .          .
1284          .        C103............
              .           V
              .           V
1287          .        R103
              .           .
              .           .
1295          .           .          .<-------    WA30
1293          .           .       RT30
              .           .          V
              .           .          V
1296          .           .        R30
              .           .          .
              .           .          .
1304          .           .          .           .<-------  BASIN1
1302          .           .          .        RTB1
              .           .          .           V
              .           .          .           V
1305          .           .          .          B1
              .           .          .           V
              .           .          .           V
1312          .           .          .         RB1
              .           .          .           .
              .           .          .           .
1318          .           .       CDIV............
              .           .          .
              .           .          .
1321          .           .          .         459
              .           .          .           .
              .           .          .           .
1331          .           .        C52............
              .           .          V
              .           .          V
1334          .           .        R52
              .           .          .
              .           .          .
1340          .           .          .         460
              .           .          .           .
              .           .          .           .
1350          .           .       C102............
              .           .          V
              .           .          V
1353          .           .      BASIN3
              .           .          V
              .           .          V
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1360          .           .          R3
              .           .           .
              .           .           .
1366          .           .           .        461
              .           .           .          .
              .           .           .          .
1376          .           .       C104............
              .           .           .
              .           .           .
1379          .        C106............
              .           V
              .           V
1382          .        R106
              .           .
              .           .
1388          .           .        462
              .           .           .
              .           .           .
1398          .         C56............
              .           .
              .           .
1401          .           .        480
              .           .           .
              .           .           .
1416          .           .           .-------->   BS480
1411          .           .       D480
              .           .           .
              .           .           .
1421          .           .           .          .<-------   BS480
1419          .           .           .      RT480
              .           .           .          V
              .           .           .          V
1422          .           .           .      SR480
              .           .           .          .
              .           .           .          .
1428          .           .       C480............
              .           .           .
              .           .           .
1431       480C........................
              V
              V
1434      RR480
              .
              .
1440          .         500
              .           .
              .           .
1450       500C............
```

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

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

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	10	951.	12.27	114.	31.	15.	.70		
+	ROUTED TO	R10	826.	12.60	114.	31.	15.	.70		
+	HYDROGRAPH AT	20	959.	12.43	128.	32.	16.	1.12		
+	2 COMBINED AT	C20	1635.	12.53	240.	63.	30.	1.82		
+	HYDROGRAPH AT	40	2582.	12.30	252.	66.	32.	2.23		
+	HYDROGRAPH AT	60	1553.	12.40	228.	61.	29.	1.75		
+	3 COMBINED AT	60C	5014.	12.37	708.	188.	90.	5.80		
+	ROUTED TO	SR60	92.	14.47	92.	89.	70.	5.80		
+	ROUTED TO	R60	92.	14.53	92.	89.	70.	5.80		
+	ROUTED TO	RR60	92.	14.63	92.	89.	70.	5.80		
+	HYDROGRAPH AT	80	1868.	12.27	179.	46.	22.	1.48		
+	2 COMBINED AT	80C	1942.	12.27	266.	134.	92.	1.48		
+	ROUTED TO	R80	1919.	12.27	266.	134.	92.	1.48		
+	HYDROGRAPH AT	100	404.	12.20	58.	15.	7.	.48		
+	2 COMBINED AT	100C	2300.	12.27	321.	148.	99.	1.96		
+	ROUTED TO	R100	2292.	12.30	321.	148.	99.	1.96		
+	HYDROGRAPH AT	120	3232.	12.27	326.	88.	42.	2.20		
+	2 COMBINED AT	120C	5469.	12.27	636.	229.	140.	4.16		
+	ROUTED TO	R120	5397.	12.30	636.	229.	140.	4.16		
+	HYDROGRAPH AT	140	632.	12.13	64.	17.	8.	.60		
+	HYDROGRAPH AT	150	135.	13.20	47.	13.	6.	.41		
+	ROUTED TO	R150	132.	13.67	47.	13.	6.	.41		
+	HYDROGRAPH AT	160	217.	12.40	35.	9.	4.	.37		
+	HYDROGRAPH AT	180	785.	12.37	90.	23.	11.	1.00		
+	5 COMBINED AT	180C	6707.	12.30	856.	286.	168.	6.54		
+	HYDROGRAPH AT	350	1151.	12.20	102.	27.	13.	.94		
+	ROUTED TO	350R	1032.	12.37	102.	27.	13.	.94		
+	HYDROGRAPH AT	310	376.	12.33	49.	12.	6.	.56		
+	2 COMBINED AT	C310	1386.	12.37	148.	38.	18.	1.49		
+	ROUTED TO	R310	1279.	12.53	148.	38.	18.	1.49		
+	HYDROGRAPH AT	295	364.	12.30	40.	10.	5.	.38		
+	2 COMBINED AT	295C	1490.	12.53	187.	48.	23.	1.87		
+	ROUTED TO	R295	1461.	12.60	187.	48.	23.	1.87		
+	HYDROGRAPH AT	240	846.	12.33	107.	27.	13.	1.04		
+	2 COMBINED AT	240C	2004.	12.57	291.	75.	36.	2.91		

+	ROUTED TO	R240	1951.	12.63	291.	75.	36.	2.91
+	HYDROGRAPH AT	210	873.	12.20	82.	22.	10.	.58
	ROUTED TO	R210	803.	12.30	82.	22.	10.	.58
+	HYDROGRAPH AT	220	1057.	12.17	93.	23.	11.	.69
+	3 COMBINED AT	220C	2540.	12.57	459.	118.	57.	4.18
+	ROUTED TO	R220	2527.	12.60	459.	118.	57.	4.18
+	HYDROGRAPH AT	190	1403.	12.17	116.	31.	15.	.92
+	ROUTED TO	R190	1272.	12.30	116.	31.	15.	.92
+	HYDROGRAPH AT	200	1399.	12.17	115.	30.	15.	.92
+	3 COMBINED AT	200C	4538.	12.27	680.	177.	85.	6.01
+	ROUTED TO	R200	4514.	12.30	680.	177.	85.	6.01
+	2 COMBINED AT	C180	11000.	12.30	1503.	451.	249.	12.55
+	ROUTED TO	SR180	144.	17.10	143.	143.	117.	12.55
+	ROUTED TO	R180	144.	17.17	143.	143.	117.	12.55
+	HYDROGRAPH AT	260	418.	12.10	43.	12.	6.	.27
+	2 COMBINED AT	260C	528.	12.13	182.	154.	124.	.27
+	ROUTED TO	R260	510.	12.20	181.	154.	124.	.27
+	HYDROGRAPH AT	280	478.	12.10	42.	12.	6.	.30
	2 COMBINED AT	280C	942.	12.13	221.	164.	129.	.57
+	ROUTED TO	R280	906.	12.20	221.	164.	128.	.57
+	HYDROGRAPH AT	300	407.	12.10	34.	9.	5.	.30
+	2 COMBINED AT	C300	1242.	12.17	252.	172.	133.	.87
+	DIVERSION TO	DIV30	942.	12.17	69.	17.	8.	.87
+	HYDROGRAPH AT	D300	300.	11.87	184.	155.	124.	.87
+	HYDROGRAPH AT	RTDIV	942.	12.17	69.	17.	8.	.87
+	ROUTED TO	SRDIV	142.	12.60	62.	17.	8.	.87
+	2 COMBINED AT	300C	442.	12.60	245.	172.	133.	.87
+	HYDROGRAPH AT	305	409.	12.27	42.	11.	6.	.38
+	DIVERSION TO	305D	409.	12.27	42.	11.	6.	.38
+	HYDROGRAPH AT	D305	0.	.00	0.	0.	0.	.38
+	HYDROGRAPH AT	RT305	409.	12.27	42.	11.	6.	.38
+	ROUTED TO	SR305	62.	12.93	36.	11.	6.	.38
+	3 COMBINED AT	305C	498.	12.67	279.	183.	138.	1.25
+	ROUTED TO	R305	497.	12.73	279.	183.	137.	1.25
	ROUTED TO	RR305	496.	12.80	278.	183.	137.	1.25
	HYDROGRAPH AT	320	1040.	12.17	111.	31.	15.	.87
+	DIVERSION TO	BS320	409.	11.93	21.	6.	3.	.87
+	HYDROGRAPH AT	D320	1040.	12.17	96.	25.	12.	.87

+ HYDROGRAPH AT	RT320	409.	11.93	21.	6.	3.	.87
+ ROUTED TO	SR320	4.	4.17	4.	4.	3.	.87
3 COMBINED AT	C320	1356.	12.17	376.	211.	151.	2.12
+ HYDROGRAPH AT	340	1471.	12.17	186.	55.	26.	1.45
+ DIVERSION TO	BS340	1471.	12.17	104.	28.	14.	1.45
+ HYDROGRAPH AT	D340	1199.	12.33	97.	27.	13.	1.45
+ HYDROGRAPH AT	RT340	1471.	12.17	104.	28.	14.	1.45
+ ROUTED TO	SR340	19.	9.00	19.	19.	14.	1.45
+ 3 COMBINED AT	C340	2305.	12.33	487.	256.	177.	3.56
+ HYDROGRAPH AT	355	537.	12.33	73.	19.	9.	.69
+ ROUTED TO	R355	481.	12.67	72.	19.	9.	.69
+ HYDROGRAPH AT	370	588.	12.30	79.	21.	10.	.67
+ ROUTED TO	R370	524.	12.63	79.	21.	10.	.67
+ HYDROGRAPH AT	360	504.	12.23	84.	25.	12.	.67
+ DIVERSION TO	BS360	504.	12.23	53.	14.	7.	.67
+ HYDROGRAPH AT	D360	306.	12.63	38.	11.	5.	.67
+ HYDROGRAPH AT	RT360	504.	12.23	53.	14.	7.	.67
+ ROUTED TO	SR360	10.	9.83	10.	10.	7.	.67
5 COMBINED AT	360C	2537.	12.63	675.	312.	207.	5.60
+ HYDROGRAPH AT	395	182.	12.23	25.	7.	3.	.20
+ ROUTED TO	R395	157.	12.67	25.	7.	3.	.20
+ HYDROGRAPH AT	380	666.	12.27	98.	26.	13.	.97
+ DIVERSION TO	BS380	666.	12.27	56.	14.	7.	.97
+ HYDROGRAPH AT	D380	472.	12.57	46.	12.	6.	.97
+ HYDROGRAPH AT	RT380	666.	12.27	56.	14.	7.	.97
+ ROUTED TO	SR380	10.	11.33	10.	10.	7.	.97
+ 4 COMBINED AT	380C	3086.	12.63	749.	338.	222.	6.77
+ HYDROGRAPH AT	390	463.	12.03	33.	10.	5.	.24
+ DIVERSION TO	BS390	95.	11.73	6.	2.	1.	.24
+ HYDROGRAPH AT	D390	463.	12.03	30.	8.	4.	.24
+ HYDROGRAPH AT	RT390	95.	11.73	6.	2.	1.	.24
+ ROUTED TO	SR390	1.	.90	1.	1.	1.	.24
+ 2 COMBINED AT	390C	464.	12.03	31.	9.	5.	.24
+ ROUTED TO	RR390	367.	12.30	31.	9.	5.	.24
HYDROGRAPH AT	400	351.	12.23	47.	13.	6.	.62
DIVERSION TO	BS400	262.	12.10	10.	3.	1.	.62
+ HYDROGRAPH AT	D400	351.	12.23	39.	10.	5.	.62
+ HYDROGRAPH AT	RT400	262.	12.10	10.	3.	1.	.62

+	ROUTED TO	SR400	2.	8.70	2.	2.	1.	.62
+	2 COMBINED AT	C400	353.	12.23	41.	12.	6.	.62
	3 COMBINED AT	400C	3378.	12.63	815.	358.	232.	7.63
+	HYDROGRAPH AT	385	782.	12.23	87.	24.	12.	.65
+	DIVERSION TO	SF385	313.	12.23	35.	10.	5.	.65
+	HYDROGRAPH AT	D385	469.	12.23	52.	14.	7.	.65
+	ROUTED TO	385R	410.	12.50	52.	14.	7.	.65
+	HYDROGRAPH AT	420	752.	12.20	92.	26.	12.	.85
+	DIVERSION TO	BS420	269.	11.97	15.	4.	2.	.85
+	HYDROGRAPH AT	D420	752.	12.20	83.	22.	10.	.85
+	HYDROGRAPH AT	RT420	269.	11.97	15.	4.	2.	.85
+	ROUTED TO	SR420	13.	11.03	12.	4.	2.	.85
+	4 COMBINED AT	420C	3986.	12.60	943.	391.	250.	10.77
+	HYDROGRAPH AT	440	180.	12.03	12.	3.	2.	.08
+	ROUTED TO	R70	176.	12.07	12.	3.	2.	.08
+	HYDROGRAPH AT	441	16.	12.03	1.	0.	0.	.01
+	2 COMBINED AT	C108	191.	12.07	14.	4.	2.	.09
+	DIVERSION TO	SPLIT	96.	12.07	7.	2.	1.	.09
	HYDROGRAPH AT	DIV4	96.	12.07	7.	2.	1.	.09
+	ROUTED TO	R108	88.	12.13	7.	2.	1.	.09
+	HYDROGRAPH AT	442	102.	12.10	9.	2.	1.	.10
+	2 COMBINED AT	C67	187.	12.10	15.	4.	2.	.19
+	DIVERSION TO	BASIN4	115.	12.10	6.	1.	1.	.19
+	HYDROGRAPH AT	DIV6	72.	12.10	10.	3.	1.	.19
+	HYDROGRAPH AT	RTDIV6	115.	12.10	6.	1.	1.	.19
+	ROUTED TO	RFDIV6	1.	11.90	1.	1.	1.	.19
+	2 COMBINED AT	CDIV6	74.	12.10	10.	4.	2.	.19
+	HYDROGRAPH AT	443	148.	12.07	14.	4.	2.	.08
+	DIVERSION TO	WSH66	78.	11.90	12.	3.	2.	.08
+	HYDROGRAPH AT	DIV66	70.	12.07	3.	1.	0.	.08
+	ROUTED TO	R113	69.	12.07	3.	1.	0.	.08
+	2 COMBINED AT	C114	140.	12.07	13.	4.	2.	.27
+	HYDROGRAPH AT	444	82.	12.03	5.	1.	1.	.04
+	ROUTED TO	R58	75.	12.07	5.	1.	1.	.04
	HYDROGRAPH AT	445	296.	12.03	18.	5.	2.	.19
	2 COMBINED AT	C107	365.	12.03	22.	6.	3.	.23
+	ROUTED TO	R107	365.	12.07	22.	6.	3.	.23
+	HYDROGRAPH AT	RTB2	96.	12.07	7.	2.	1.	.09

+	ROUTED TO	RSPLIT	95.	12.07	7.	2.	1.	.09
+	HYDROGRAPH AT	446	65.	12.03	6.	2.	1.	.04
	3 COMBINED AT	C109	520.	12.07	35.	9.	4.	.27
+	DIVERSION TO	WSH404	35.	11.73	8.	2.	1.	.27
+	HYDROGRAPH AT	DIV5	485.	12.07	27.	7.	3.	.27
+	ROUTED TO	R109	469.	12.10	27.	7.	3.	.27
+	HYDROGRAPH AT	447	138.	12.07	12.	4.	2.	.09
+	HYDROGRAPH AT	RT404	35.	11.73	8.	2.	1.	.27
+	ROUTED TO	R404	35.	11.90	8.	2.	1.	.27
+	3 COMBINED AT	C110	635.	12.07	46.	13.	6.	.36
+	ROUTED TO	R110	632.	12.10	46.	13.	6.	.36
+	2 COMBINED AT	C115	764.	12.10	59.	17.	8.	.63
+	ROUTED TO	R115	767.	12.10	59.	17.	8.	.63
+	HYDROGRAPH AT	448	88.	12.03	6.	2.	1.	.05
+	HYDROGRAPH AT	449	80.	12.03	5.	1.	1.	.05
+	2 COMBINED AT	C6364	166.	12.03	11.	3.	1.	.09
+	ROUTED TO	R6364	137.	12.17	11.	3.	1.	.09
+	HYDROGRAPH AT	450	61.	12.20	6.	2.	1.	.07
	HYDROGRAPH AT	451	18.	12.17	2.	1.	0.	.03
+	HYDROGRAPH AT	RT66	78.	11.90	12.	3.	2.	.08
+	HYDROGRAPH AT	452	62.	12.03	4.	1.	1.	.04
+	2 COMBINED AT	C6465	140.	12.03	16.	4.	2.	.04
+	ROUTED TO	R6566	135.	12.10	16.	4.	2.	.04
+	4 COMBINED AT	C116	341.	12.17	35.	9.	4.	.23
+	ROUTED TO	BASIN5	152.	12.47	35.	9.	4.	.23
+	ROUTED TO	R116	150.	12.53	35.	9.	4.	.23
+	HYDROGRAPH AT	453	62.	12.10	7.	2.	1.	.06
+	2 COMBINED AT	C117	169.	12.50	41.	11.	5.	.29
+	2 COMBINED AT	C118	852.	12.10	99.	28.	14.	.92
+	ROUTED TO	R118	842.	12.10	99.	28.	14.	.92
+	DIVERSION TO	BASIN6	243.	12.10	10.	2.	1.	.92
+	HYDROGRAPH AT	DIV7	599.	12.10	89.	25.	13.	.92
+	HYDROGRAPH AT	RTDIV7	243.	12.10	10.	2.	1.	.92
+	ROUTED TO	RFDIV7	1.	11.97	1.	1.	1.	.92
	2 COMBINED AT	CDIV7	600.	12.10	90.	26.	13.	.92
	HYDROGRAPH AT	454	157.	12.17	21.	6.	3.	.18
+	2 COMBINED AT	C119	748.	12.13	110.	32.	16.	1.10
+	ROUTED TO	R454	681.	12.40	110.	32.	16.	1.10

+	HYDROGRAPH AT	415	412.	12.17	55.	16.	7.	.45
+	HYDROGRAPH AT	RT385	313.	12.23	35.	10.	5.	.65
	ROUTED TO	RR385	285.	12.40	35.	10.	5.	.65
+	3 COMBINED AT	415C	1253.	12.37	196.	56.	28.	1.55
+	ROUTED TO	R415	1225.	12.43	196.	56.	28.	1.55
+	HYDROGRAPH AT	455	1346.	12.13	142.	43.	21.	1.11
+	DIVERSION TO	BS455	1346.	12.13	137.	37.	18.	1.11
+	HYDROGRAPH AT	D455	55.	12.77	16.	6.	3.	1.11
+	HYDROGRAPH AT	RT455	1346.	12.13	137.	37.	18.	1.11
+	ROUTED TO	SR455	25.	10.47	25.	25.	18.	1.11
+	2 COMBINED AT	C455	80.	12.77	41.	31.	21.	1.11
+	3 COMBINED AT	455C	4914.	12.60	1147.	467.	294.	13.43
+	ROUTED TO	SR440	781.	14.00	767.	467.	294.	13.43
+	ROUTED TO	RR455	781.	14.30	766.	467.	291.	13.43
+	HYDROGRAPH AT	456	468.	12.07	35.	10.	5.	.26
+	DIVERSION TO	BASIN1	184.	12.07	8.	2.	1.	.26
+	HYDROGRAPH AT	DIV1	284.	12.07	27.	8.	4.	.26
+	DIVERSION TO	WA30	58.	12.07	10.	3.	2.	.26
	HYDROGRAPH AT	DIV2	226.	12.07	18.	4.	2.	.26
+	ROUTED TO	R456	213.	12.13	18.	4.	2.	.26
+	HYDROGRAPH AT	457	264.	12.07	20.	5.	3.	.19
+	2 COMBINED AT	C101	462.	12.10	38.	10.	5.	.45
+	DIVERSION TO	BASIN2	165.	12.10	7.	2.	1.	.45
+	HYDROGRAPH AT	DIV3	297.	12.10	30.	8.	4.	.45
+	HYDROGRAPH AT	RTDIV3	165.	12.10	7.	2.	1.	.45
+	ROUTED TO	RFDIV3	2.	11.90	2.	2.	1.	.45
+	2 COMBINED AT	CDIV3	299.	12.10	32.	9.	5.	.45
+	ROUTED TO	R101	297.	12.10	32.	9.	5.	.45
+	HYDROGRAPH AT	458	356.	12.03	25.	7.	3.	.19
+	2 COMBINED AT	C103	635.	12.07	56.	16.	8.	.64
+	ROUTED TO	R103	630.	12.07	56.	16.	8.	.64
+	HYDROGRAPH AT	RT30	58.	12.07	10.	3.	2.	.26
+	ROUTED TO	R30	57.	12.10	10.	3.	2.	.26
+	HYDROGRAPH AT	RTB1	184.	12.07	8.	2.	1.	.26
	ROUTED TO	B1	37.	12.23	8.	2.	1.	.26
	ROUTED TO	RB1	37.	12.30	8.	2.	1.	.26
+	2 COMBINED AT	CDIV	86.	12.20	17.	5.	3.	.12
+	HYDROGRAPH AT	459	44.	12.03	3.	1.	0.	.03

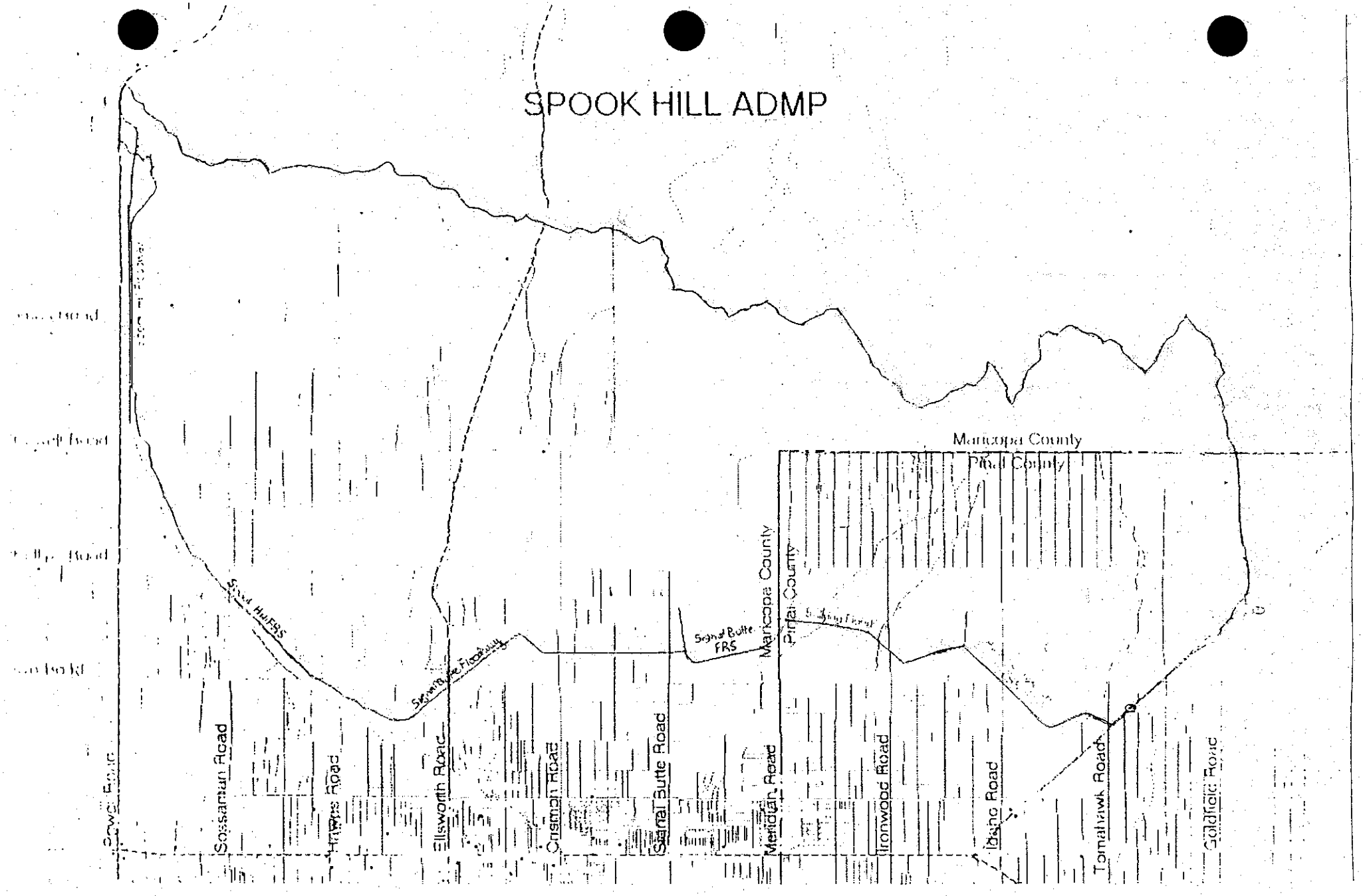
+	ROUTED TO RSPLIT	95.	12.07	7.	2.	1.	.09
+	HYDROGRAPH AT 446	65.	12.03	6.	2.	1.	.04
+	3 COMBINED AT C109	520.	12.07	35.	9.	4.	.27
+	DIVERSION TO WSH404	35.	11.73	8.	2.	1.	.27
+	HYDROGRAPH AT DIV5	485.	12.07	27.	7.	3.	.27
+	ROUTED TO R109	469.	12.10	27.	7.	3.	.27
+	HYDROGRAPH AT 447	138.	12.07	12.	4.	2.	.09
+	HYDROGRAPH AT RT404	35.	11.73	8.	2.	1.	.27
+	ROUTED TO R404	35.	11.90	8.	2.	1.	.27
+	3 COMBINED AT C110	635.	12.07	46.	13.	6.	.36
+	ROUTED TO R110	632.	12.10	46.	13.	6.	.36
+	2 COMBINED AT C115	764.	12.10	59.	17.	8.	.63
+	ROUTED TO R115	767.	12.10	59.	17.	8.	.63
+	HYDROGRAPH AT 448	88.	12.03	6.	2.	1.	.05
+	HYDROGRAPH AT 449	80.	12.03	5.	1.	1.	.05
+	2 COMBINED AT C6364	166.	12.03	11.	3.	1.	.09
+	ROUTED TO R6364	137.	12.17	11.	3.	1.	.09
+	HYDROGRAPH AT 450	61.	12.20	6.	2.	1.	.07
+	HYDROGRAPH AT 451	18.	12.17	2.	1.	0.	.03
+	HYDROGRAPH AT RT66	78.	11.90	12.	3.	2.	.08
+	HYDROGRAPH AT 452	62.	12.03	4.	1.	1.	.04
+	2 COMBINED AT C6465	140.	12.03	16.	4.	2.	.04
+	ROUTED TO R6566	135.	12.10	16.	4.	2.	.04
+	4 COMBINED AT C116	341.	12.17	35.	9.	4.	.23
+	ROUTED TO BASIN5	152.	12.47	35.	9.	4.	.23
+	ROUTED TO R116	150.	12.53	35.	9.	4.	.23
+	HYDROGRAPH AT 453	62.	12.10	7.	2.	1.	.06
+	2 COMBINED AT C117	169.	12.50	41.	11.	5.	.29
+	2 COMBINED AT C118	852.	12.10	99.	28.	14.	.92
+	ROUTED TO R118	842.	12.10	99.	28.	14.	.92
+	DIVERSION TO BASIN6	243.	12.10	10.	2.	1.	.92
+	HYDROGRAPH AT DIV7	599.	12.10	89.	25.	13.	.92
+	HYDROGRAPH AT RTDIV7	243.	12.10	10.	2.	1.	.92
+	ROUTED TO RFDIV7	1.	11.97	1.	1.	1.	.92
+	2 COMBINED AT CDIV7	600.	12.10	90.	26.	13.	.92
+	HYDROGRAPH AT 454	157.	12.17	21.	6.	3.	.18
+	2 COMBINED AT C119	748.	12.13	110.	32.	16.	1.10
+	ROUTED TO R454	681.	12.40	110.	32.	16.	1.10

+	HYDROGRAPH AT	415	412.	12.17	55.	16.	7.	.45
+	HYDROGRAPH AT	RT385	313.	12.23	35.	10.	5.	.65
+	ROUTED TO	RR385	285.	12.40	35.	10.	5.	.65
+	3 COMBINED AT	415C	1253.	12.37	196.	56.	28.	1.55
+	ROUTED TO	R415	1225.	12.43	196.	56.	28.	1.55
+	HYDROGRAPH AT	455	1346.	12.13	142.	43.	21.	1.11
+	DIVERSION TO	BS455	1346.	12.13	137.	37.	18.	1.11
+	HYDROGRAPH AT	D455	55.	12.77	16.	6.	3.	1.11
+	HYDROGRAPH AT	RT455	1346.	12.13	137.	37.	18.	1.11
+	ROUTED TO	SR455	25.	10.47	25.	25.	18.	1.11
+	2 COMBINED AT	C455	80.	12.77	41.	31.	21.	1.11
+	3 COMBINED AT	455C	4914.	12.60	1147.	467.	294.	13.43
+	ROUTED TO	SR440	781.	14.00	767.	467.	294.	13.43
+	ROUTED TO	RR455	781.	14.30	766.	467.	291.	13.43
+	HYDROGRAPH AT	456	468.	12.07	35.	10.	5.	.26
+	DIVERSION TO	BASIN1	184.	12.07	8.	2.	1.	.26
+	HYDROGRAPH AT	DIV1	284.	12.07	27.	8.	4.	.26
+	DIVERSION TO	WA30	58.	12.07	10.	3.	2.	.26
+	HYDROGRAPH AT	DIV2	226.	12.07	18.	4.	2.	.26
+	ROUTED TO	R456	213.	12.13	18.	4.	2.	.26
+	HYDROGRAPH AT	457	264.	12.07	20.	5.	3.	.19
+	2 COMBINED AT	C101	462.	12.10	38.	10.	5.	.45
+	DIVERSION TO	BASIN2	165.	12.10	7.	2.	1.	.45
+	HYDROGRAPH AT	DIV3	297.	12.10	30.	8.	4.	.45
+	HYDROGRAPH AT	RTDIV3	165.	12.10	7.	2.	1.	.45
+	ROUTED TO	RFDIV3	2.	11.90	2.	2.	1.	.45
+	2 COMBINED AT	CDIV3	299.	12.10	32.	9.	5.	.45
+	ROUTED TO	R101	297.	12.10	32.	9.	5.	.45
+	HYDROGRAPH AT	458	356.	12.03	25.	7.	3.	.19
+	2 COMBINED AT	C103	635.	12.07	56.	16.	8.	.64
+	ROUTED TO	R103	630.	12.07	56.	16.	8.	.64
+	HYDROGRAPH AT	RT30	58.	12.07	10.	3.	2.	.26
+	ROUTED TO	R30	57.	12.10	10.	3.	2.	.26
+	HYDROGRAPH AT	RTB1	184.	12.07	8.	2.	1.	.26
+	ROUTED TO	B1	37.	12.23	8.	2.	1.	.26
+	ROUTED TO	RB1	37.	12.30	8.	2.	1.	.26
+	2 COMBINED AT	CDIV	86.	12.20	17.	5.	3.	.12
+	HYDROGRAPH AT	459	44.	12.03	3.	1.	0.	.03

+	2 COMBINED AT	C52	113.	12.10	20.	6.	3.	.15
+	ROUTED TO	R52	112.	12.17	20.	6.	3.	.15
+	HYDROGRAPH AT	460	214.	12.07	19.	6.	3.	.14
+	2 COMBINED AT	C102	313.	12.07	39.	12.	6.	.29
+	ROUTED TO	BASIN3	71.	12.63	39.	12.	6.	.29
+	ROUTED TO	R3	71.	12.77	39.	12.	6.	.29
+	HYDROGRAPH AT	461	161.	12.10	17.	5.	2.	.12
+	2 COMBINED AT	C104	213.	12.10	55.	17.	8.	.41
+	2 COMBINED AT	C106	835.	12.07	110.	32.	16.	1.05
+	ROUTED TO	R106	797.	12.13	110.	32.	16.	1.05
+	HYDROGRAPH AT	462	538.	12.07	40.	11.	5.	.30
+	2 COMBINED AT	C56	1254.	12.10	149.	42.	21.	1.35
+	HYDROGRAPH AT	480	1050.	12.10	96.	29.	14.	.73
+	DIVERSION TO	BS480	455.	11.90	27.	8.	4.	.73
+	HYDROGRAPH AT	D480	1050.	12.10	78.	21.	10.	.73
+	HYDROGRAPH AT	RT480	455.	11.90	27.	8.	4.	.73
+	ROUTED TO	SR480	6.	3.90	6.	6.	4.	.73
+	2 COMBINED AT	C480	1056.	12.10	84.	27.	14.	.73
+	3 COMBINED AT	480C	2516.	12.10	945.	549.	334.	2.09
+	ROUTED TO	RR480	2354.	12.13	943.	549.	334.	2.09
+	HYDROGRAPH AT	500	1073.	12.27	122.	33.	16.	.93
+	2 COMBINED AT	500C	3243.	12.17	1054.	577.	348.	2.84

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

SPOOK HILL ADMP



HEC-1 Existing condition 100-Year, 24-Hour Storm. Pass Mountain Diversion Levee extended North-West creating Sub-Basin 295 from 300. Offline basins added to Sub-Basins 220 & 240.

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1*************************************                    *************************************
 *                                   *                    *                                   *
 *   FLOOD HYDROGRAPH PACKAGE  (HEC-1)   *                    *   U.S. ARMY CORPS OF ENGINEERS    *
 *            JUN   1998             *                    *   HYDROLOGIC ENGINEERING CENTER   *
 *          VERSION 4.1              *                    *         609 SECOND STREET         *
 *                                   *                    *      DAVIS, CALIFORNIA 95616      *
 *  RUN DATE   02MAY00  TIME  07:27:22  *                    *          (916) 756-1104           *
 *                                   *                    *                                   *
*************************************                    *************************************

                                        X     X  XXXXXXX   XXXXX           X
                                        X     X  X        X     X         XX
                                        X     X  X        X                X
                                        XXXXXXX  XXXX     X        XXXXX   X
                                        X     X  X        X                X
                                        X     X  X        X     X          X
                                        X     X  XXXXXXX   XXXXX         XXX
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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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1                                                HEC-1 INPUT                                                    PAGE  1

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

  1           ID   EXISTING LAND USE CALCULATIONS WERE BASED ON 1 YR. FROM 11/5/99
  2           ID   FOR LAS SENDAS       AND LANDISCOR JAN.1999 AERIAL PHOTOGPRAPHS
  3           ID
  4           ID   ALL DAMS WERE ANALYZED WITH NO STORAGE BELOW PRINCIPLE SPILLWAY ELEVATIONS
  5           ID
  6           ID   A CONSERVATIVE ESTIMATE WAS USED FOR THE LOCATION OF THE CENTROID FOR
  7           ID   PRECIPITATION VALUES
  8           ID
  9           ID   ALL CHANNEL ROUTING INFORMATION WAS OBTAINED FROM MCFCD SPOOK HILL   SIGNAL
 10           ID   BUTTE        AND BULLDOG FLOODWAY PLANS
 11           ID
 12           ID
 13           ID   ADDITION OF LEVEE INTO SUB-BASINS 300 & 320 OF PASS MOUNTAIN DIVERSION
 14           ID   LEVEE EXTENDED nORTH-WEST CREATING SUB-BASIN 295 FROM 300.  OFFLINE BASINS
 15           ID   ADDED TO SUB-BASINS 220 & 240.
 16           ID   ANALYSIS PERFORMED BY WOOD/PATEL; 05/01/00 BY: MW;  FILE S24CE5.DAT
 17           ID
 18           ID   DDM MCUHP1 SPOOK HILL AMDP - EXISTING CONDITIONS MODEL - 100YR, 24HR STORM
              *DIAGRAM
 19           IT       2                    1500
 20           IO       3
 21           IN      15
 22           JD    3.81    0.01
 23           PC    .000    .002    .005    .008    .011    .014    .017    .020    .023    .026
 24           PC    .029    .032    .035    .038    .041    .044    .048    .052    .056    .060
 25           PC    .064    .068    .072    .076    .080    .085    .090    .095    .100    .105
 26           PC    .110    .115    .120    .126    .133    .140    .147    .155    .163    .172
 27           PC    .181    .191    .203    .218    .236    .257    .283    .387    .663    .707
 28           PC    .735    .758    .776    .791    .804    .815    .825    .834    .842    .849
 29           PC    .856    .863    .869    .875    .881    .887    .893    .898    .903    .908
 30           PC    .913    .918    .922    .926    .930    .934    .938    .942    .946    .950
 31           PC    .953    .956    .959    .962    .965    .968    .971    .974    .977    .980
 32           PC    .983    .986    .989    .992    .995    .998   1.000
 33           JD    3.58   10.00
 34           JD    3.43   30.00
 35           JD    3.28   60.00
 36           JD    3.22   90.00
 37           JD    3.18  120.00
 38           JD    3.14  150.00
 39           JD    3.05  300.00
 40           JD    2.97  500.00
              * DDM   ***** Updated *****

 41           KK      10
 42           KM   SUB-BASIN 10
 43           KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 44           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
 45           KM     L = 2.00  Kb = .044  Adj. Slope =  165.0
 46           BA    .702
 47           LG    .350    .320   7.600    .090  15.000
 48           UC    .421    .302
 49           UA       0       3       5       8      12      20      43      75      90      96
 50           UA     100
              * DDM   ***** Preserved *****
1                                                HEC-1 INPUT                                                    PAGE  2

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

 51           KK     R10
 52           KM   ROUTING OF FLOW FROM SUB-BASIN 10 TO SUB-BASIN 20
 53           RS      10    FLOW      -1
 54           RC    .045    .045    .045   13200    .017
 55           RX       0       1       2      14      34      46      47      48
 56           RY       4       4       4       0       0       4       4       4
              * DDM   ***** Updated *****

 57           KK      20
 58           KM   SUB-BASIN 20
 59           KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 60           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .993
 61           KM     L = 2.50  Kb = .041  Adj. Slope =   88.0
 62           BA   1.120
 63           LG    .350    .390   5.800    .190   1.000
 64           UC    .658    .454
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 65          UA       0       3       5       8      12      20      43      75      90      96
 66          UA     100
             * DDM   ***** Preserved *****

 67          KK     C20
 68          KM   HYDROGRAPH COMBINATION OF SUB-BASINS 10 AND 20
 69          HC       2
             * DDM   ***** Updated *****

 70          KK      40
 71          KM   SUB-BASIN 40
 72          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 73          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .987
 74          KM     L = 3.08  Kb = .036  Adj. Slope =  189.0
 75          BA   2.233
 76          LG    .340    .340   4.900    .280   5.000
 77          UC    .496    .264
 78          UA       0       3       5       8      12      20      43      75      90      96
 79          UA     100
             * DDM   ***** Updated *****

 80          KK      60
 81          KM   SUB-BASIN 60
 82          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 83          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .990
 84          KM     L = 4.19  Kb = .038  Adj. Slope =  209.6
 85          BA   1.746
 86          LG    .330    .350   5.800    .190   9.000
 87          UC    .596    .477
 88          UA       0       3       5       8      12      20      43      75      90      96
 89          UA     100
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE  3

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


 90          KK     60C
 91          KM   HYDROGRAPH COMBINATION FOR APACHE JUNCTION FRS
             *      1       2
 92          HC       3
             * DDM   ***** Preserved *****

 93          KK    SR60
 94          KM   APACHE JUNCTION FRS AS-BUILT PLANS 12/19/88
 95          KM   OUTLET PIPE=30"RCP; L=136.6'; INLET INV.=1783.5; OUTLET INV.=1783
 96          KM   EMERGENCY SPILLWAY ELEV.=1799.77'; PRINCIPLE SPILLWAY ELEV.=1793.5'
 97          KM   STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 100 ACRE-FEET
 98          RS       1    STOR       0
 99          SV       0       1     100     200     300     400
100          SQ       0      71      81      87    91.5      94
101          SE    83.5    93.5      96    97.7      99   99.77
             * DDM   ***** Preserved *****

102          KK     R60
103          KM        ROUTE FLOW THROUGH BULLDOG FLOODWAY FROM APACHE JUNCTION FRS
104          RS       2    FLOW      -1
105          RC    .016    .016    .016    2850    .012
106          RX       0       1       2     2.1     5.6     5.7       6       7
107          RY     3.5     3.5     3.5       0       0     3.5     3.5     3.5
             * DDM   ***** Preserved *****

108          KK    RR60
109          KM   ROUTE FLOW FROM BULLDOG FLOODWAY TO SUB-BASIN 80
110          RS       3    FLOW      -1
111          RC    .016    .016    .016    3500    .005
112          RX       0       1       2     2.1     7.1     7.2       8       9
113          RY     3.5     3.5     3.5       0       0     3.5     3.5     3.5
             * DDM   ***** Updated *****

114          KK      80
115          KM   SUB-BASIN 80
116          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
117          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
118          KM     L = 2.69  Kb = .039  Adj. Slope =  229.8
119          BA   1.475
120          LG    .330    .330   5.600    .210   4.000
121          UC    .433    .259
122          UA       0       3       5       8      12      20      43      75      90      96
123          UA     100
             * DDM   ***** Preserved *****

124          KK     80C
125          KM   HYDROGRAPH COMBINATION FOR FLOW FROM APACHE JUNCTION FRS & SUB-BASIN 80
126          HC       2   1.475
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE  4

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


127          KK     R80
128          KM   ROUTE FLOW FROM SUB-BASIN 80 TO SUB-BASIN 100
129          RS       1    FLOW      -1
130          RC    .025    .016    .025    1200    .003
131          RX       0       2       6     6.1    41.1    41.2    56.2    58.2
132          RY     5.5     4.5     4.5       0       0     4.5     4.5     5.5
             * DDM   ***** Updated *****

133          KK     100
134          KM   SUB-BASIN 100
135          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
136          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
137          KM     L = 1.94  Kb = .046  Adj. Slope =  108.0
138          BA    .484
139          LG    .320    .290   5.100    .260   3.000
140          UC    .533    .473
141          UA       0       5      16      30      65      77      84      90      94      97
142          UA     100
             * DDM   ***** Preserved *****

143          KK    100C
144          KM   HYDROGRAPH COMBINATION FOR FLOW FROM SUB-BASIN 80 & 100
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145          HC       2
             * DDM   ***** Preserved *****

146          KK    R100
147          KM   ROUTE FLOW FROM SUB-BASIN 100 TO SUB-BASIN 120
148          RS       1    FLOW      -1
149          RC    .016    .016    .016     940    .005
150          RX       0       1       2     2.1    52.1    52.2      53      54
151          RY     4.5     4.5     4.5       0       0     4.5     4.5     4.5
             * DDM   ***** Updated *****

152          KK     120
153          KM   SUB-BASIN 120
154          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
155          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .987
156          KM     L = 3.07  Kb = .037  Adj. Slope =  239.0
157          BA   2.202
158          LG    .330    .280   6.800    .130  11.000
159          UC    .429    .226
160          UA       0       3       5       8      12      20      43      75      90      96
161          UA     100
             * DDM   ***** Preserved *****

162          KK    120C
163          KM   HYDROGRAPH COMBINATION FOR FLOW FROM SUB-BASIN 100 & 120
164          HC       2
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE  5

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

165          KK    R120
166          KM   ROUTE FLOW FROM SUB-BASIN 120 TO SIGNAL BUTTE FRS
167          RS       1    FLOW      -1
168          RC    .025    .016    .025    2100    .005
169          RX       0       6      10    10.1    60.1    60.2    74.2    80.2
170          RY       8       5       5       0       0       5       5       8
             * DDM   ***** Updated *****

171          KK     140
172          KM   SUB-BASIN 140
173          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
174          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
175          KM     L = 1.61  Kb = .044  Adj. Slope =  149.0
176          BA    .598
177          LG    .310    .280   4.200    .440   5.000
178          UC    .421    .278
179          UA       0       5      16      30      65      77      84      90      94      97
180          UA     100
             * DDM   ***** Updated *****

181          KK     150
182          KM   SUB-BASIN 150
183          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
184          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
185          KM     L = 1.50  Kb = .047  Adj. Slope =  315.0
186          BA    .408
187          LG    .350    .360   5.100    .260   7.000
188          UC   1.579   1.417
189          UA       0       3       5       8      12      20      43      75      90      96
190          UA     100
             * DDM   ***** Preserved *****

191          KK    R150
192          KM   ROUTING OF FLOW FROM SUB-BASIN 150 THROUGH 160
193          RS      14    FLOW      -1
194          RC    .045    .045    .045   10895    .019
195          RX       0       1       2      14      34      46      47      48
196          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

197          KK     160
198          KM   SUB-BASIN 160
199          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
200          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
201          KM     L = 2.10  Kb = .047  Adj. Slope =  129.0
202          BA    .369
203          LG    .340    .330   4.150    .440   1.000
204          UC    .587    .655
205          UA       0       3       5       8      12      20      43      75      90      96
206          UA     100
             * DDM   ***** Updated *****
1                                    HEC-1 INPUT                                          PAGE  6

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

207          KK     180
208          KM   SUB-BASIN 180
209          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
210          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
211          KM     L = 2.42  Kb = .041  Adj. Slope =  140.0
212          BA   1.000
213          LG    .350    .350   4.150    .430    .000
214          UC    .571    .403
215          UA       0       3       5       8      12      20      43      75      90      96
216          UA     100
             * DDM   ***** Preserved *****

217          KK    180C
218          KM   HYDROGRAPH COMBINATION FOR SIGNAL BUTTE FRS
219          HC       5

220          KK     350
221          KM   SUB-BASIN 350
222          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
223          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
224          KM     L = 2.22  Kb = .042  Adj. Slope =  311.0
225          BA    .961
226          LG    .350    .350   4.600    .330   5.000
227          UC    .367    .235
228          UA       0       3       5       8      12      20      43      75      90      96
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229          UA     100

230          KK    D350
231          KM   DIVERT FLOW FROM SUB-BASIN 350. FOR MODELING PURPOSES THE SPLIT FLOW WILL
232          KM   BE ROUTED BETWEEN SUB-BASINS 355 & 310. THE MAIN FLOW WILL ROUTED TO 310
233          DT   SF350
234          DI       0   10000
235          DQ       0    6000
             * DDM   ***** Preserved *****

236          KK    350R
237          KM   ROUTING OF MAIN FLOW FROM DIVERSION OF SUB-BASIN 350 TO SUB-BASIN 310
238          RS       7    FLOW      -1
239          RC    .045    .045    .045    5379    .024
240          RX       0       1       2      32     102     132     133     134
241          RY       2       2       2       0       0       2       2       2
             * DDM   ***** Updated *****

242          KK     310
243          KM   SUB-BASIN 310
244          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
245          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
246          KM     L = 2.70  Kb = .045  Adj. Slope =  283.5
247          BA    .555
248          LG    .350    .350   3.910    .480    .000
249          UC    .483    .511
250          UA       0       3       5       8      12      20      43      75      90      96
251          UA     100
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE  7

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

252          KK    C310
253          KM   HYDROGRAPH COMBINATION OF SUB-BASINS 350 & 310
254          HC       2    .943
             * DDM   ***** Preserved *****

255          KK    R310
256          KM   ROUTING OF FLOW FROM SUB-BASIN 310 TO 240
257          RS       6    FLOW      -1
258          RC    .045    .045    .045    4711    .015
259          RX       0       1       2      32     102     132     133     134
260          RY     2.5     2.5     2.5       0       0     2.5     2.5     2.5
             * DDM   ***** Updated *****

261          KK     295
262          KM   SUB-BASIN 295
263          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
264          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
265          KM     L = 1.60  Kb = .047  Adj. Slope =  131.0
266          BA    .380
267          LG    .350    .350   4.900    .280    .000
268          UC    .450    .386
269          UA       0       3       5       8      12      20      43      75      90      96
270          UA     100

271          KK    295C
272          KM   HYDROGRAPH COMBINATION OF SUB-BASINS 310 & 295
273          HC       2

274          KK    R295
275          KM   ROUTE FLOW FROM SUB-BASIN 295 TO SUB-BASIN 240
276          KM   ADDITIONAL LEVEE ADDED TO PASS MOUNTAIN DIVERSION
277          RS       2    FLOW      -1
278          RC    .035    .025    .035    1600    .005
279          RX       0      20      40      65      77     147     387     388
280          RY       8       8       2       0       0       2       8       8
             * DDM   ***** Updated *****

281          KK     240
282          KM   SUB-BASIN 240
283          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
284          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
285          KM     L = 3.50  Kb = .041  Adj. Slope =  298.6
286          BA   1.036
287          LG    .350    .350   4.600    .330   2.000
288          UC    .500    .458
289          UA       0       3       5       8      12      20      43      75      90      96
290          UA     100

291          KK    240C
292          KM   HYDROGRAPH COMBINATION OF SUB-BASINS 295 & 240
293          HC       2
1                                    HEC-1 INPUT                                          PAGE  8

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

294          KK    D240
295          KM   DIVERT FLOW INTO OFFLINE BASIN
296          KM
297          KO       1
298          DT   240S
299          DI       0     600    5000
300          DQ       0       0    4400
             * DDM   ***** Preserved *****

301          KK   RT240S
302          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
303          DR   240S
             * DDM   ***** Preserved *****

304          KK   SR240S
305          KM   RETRIEVE FLOW INTO BASIN AND BLEED OFF WITHIN 36 HOURS
306          KM
307          KO       1       2
308          RS       1    STOR       0
309          SV       0      50
310          SE       0      10
311          SQ       0     250
             * DDM   ***** Preserved *****
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KK    C240
KM   HYDROGRAPH COMBINATION OF DIVERTED FLOW
HC       2
* DDM   ***** Preserved *****

KK    R240
KM   ROUTE FLOW FROM SUB-BASIN 240 TO SUB-BASIN 220
KM   PASS MOUNTAIN DIVERSION
RS       2     FLOW      -1
RC    .035    .025    .035    2100    .005
RX       0      15      30      60      88     558     560     562
RY      10      10      10       0       0      10      10      10
* DDM   ***** Updated *****

KK     210
KM   SUB-BASIN 210
KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
KM     L = 1.84  Kb = .045  Adj. Slope =  315.0
BA    .583
LG    .350    .350   7.000    .120   7.000
UC    .321    .232
UA       0       3       5       8      12      20      43      75      90      96
UA     100
* DDM   ***** Preserved *****
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LINE      ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

KK    R210
KM   ROUTING OF FLOW FROM SUB-BASIN 210 TO SUB-BASIN 220
RS       3     FLOW      -1
RC    .045    .045    .045    5484    .024
RX       0       1       2      14      29      41      42      43
RY       4       4       4       0       0       4       4       4
* DDM   ***** Updated *****

KK     220
KM   SUB-BASIN 220
KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
KM     L = 1.92  Kb = .044  Adj. Slope =  315.0
BA    .688
LG    .350    .330   7.300    .110   1.000
UC    .321    .218
UA       0       3       5       8      12      20      43      75      90      96
UA     100
* DDM   ***** Preserved *****

KK    220C
KM   HYDROGRAPH COMBINATION OF SUB-BASINS 295 & 240
HC       3

KK    D220
KM   DIVERT FLOW INTO OFFLINE BASIN
KM
KO       1
DT   220S
DI       0     600    5000
DQ       0       0    4400
* DDM   ***** Preserved *****

KK   RT220S
KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
DR   220S
* DDM   ***** Preserved *****

KK   SR220S
KM   RETRIEVE FLOW INTO BASIN AND BLEED OFF WITHIN 36 HOURS
KM
KO       1       2
RS       1    STOR       0
SV       0      60
SE       0      10
SQ       0     400
* DDM   ***** Preserved *****

KK    C220
KM   HYDROGRAPH COMBINATION OF DIVERTED FLOW
HC       2
* DDM   ***** Preserved *****
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LINE      ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

KK    R220
KM   ROUTE FLOW FROM SUB-BASIN 220 TO SUB-BASIN 200
KM   PASS MOUNTAIN DIVERSION
RS       1     FLOW      -1
RC    .035    .025    .035    1900    .005
RX       0       5      10      40      70      85      86      87
RY      10      10      10       0       0      10      10      10
* DDM   ***** Updated *****

KK     190
KM   SUB-BASIN 190
KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
KM     L = 1.91  Kb = .042  Adj. Slope =  315.0
BA    .918
LG    .350    .390   5.800    .190   8.000
UC    .321    .185
UA       0       3       5       8      12      20      43      75      90      96
UA     100
* DDM   ***** Preserved *****

KK    R190
KM   ROUTING OF FLOW FROM SUB-BASIN 190 TO SUB-BASIN 200
RS       4     FLOW      -1
RC    .045    .045    .045    6948    .023
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393          RX       0       1       2      17      37      52      53      54
394          RY       5       5       5       0       0       5       5       5
             * DDM   ***** Updated *****

395          KK     200
396          KM   SUB-BASIN 200
397          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
398          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
399          KM     L = 1.92  Kb = .042  Adj. Slope =  315.0
400          BA    .918
401          LG    .350    .390   5.800    .190   7.000
402          UC    .321    .185
403          UA       0       3       5       8      12      20      43      75      90      96
404          UA     100
             * DDM   ***** Preserved *****

405          KK    200C
406          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 220 & 200
407          HC       3
             * DDM   ***** Preserved *****

408          KK    R200
409          KM   ROUTE FLOW FROM SUB-BASIN 200 TO SIGNAL BUTTE FRS
410          RS       1    FLOW      -1
411          RC    .035    .025    .035    1300    .005
412          RX       0       1       2      17     117     132     133     134
413          RY       5       5       5       0       0       5       5       5
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 11

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

414          KK    C180
415          KM   HYDROGRAPH COMBINATION FOR SIGNAL BUTTE FRS
             *      1       2
416          HC       2
             * DDM   ***** Preserved *****

417          KK   SR180
418          KM   SIGNAL BUTTE FRS DATED 1/28/85
419          KM   OUTLET PIPE=36"RCP; L= 147';  INLET INV.=1690; OUTLET INV.=1687
420          KM   EMERGENCY SPILLWAY ELEV.=1712.4; PRINCIPLE SPILLWAY ELEV.=1701
421          KM   STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 250 ACRE-FEET
422          RS       1    STOR       0
423          SV       0       1     250     500     750    1060
424          SQ       0   106.5   125.5   137.5     146     160
425          SE      90     101   104.5     107     109   112.4
             * DDM   ***** Preserved *****

426          KK    R180
427          KM   ROUTE FLOW FROM SIGNAL BUTTE FRS TO SUB-BASIN 260
428          RS       2    FLOW      -1
429          RC    .035    .025    .035    1500    .003
430          RX       0       1       2    22.6    38.6    59.2      60      61
431          RY     9.3     9.3     9.3       0       0     9.3     9.3     9.3
             * DDM   ***** Updated *****

432          KK     260
433          KM   SUB-BASIN 260
434          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
435          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
436          KM     L =  .81  Kb = .049  Adj. Slope =   68.0
437          BA    .267
438          LG    .300    .170   6.800    .160  15.000
439          UC    .363    .215
440          UA       0       5      16      30      65      77      84      90      94      97
441          UA     100
             * DDM   ***** Preserved *****

442          KK    260C
443          KM   HYDROGRAPH COMBINATION FOR OUTFLOW OF SIGNAL BUTTE FRS & SUB-BASIN 260
444          HC       2    .267
             * DDM   ***** Preserved *****

445          KK    R260
446          KM   ROUTE FLOW FROM SUB-BASIN 260 TO SUB-BASIN 280
447          RS       2    FLOW      -1
448          RC    .035    .025    .035    2300    .003
449          RX       0       1       2    23.4    43.4    64.8      65      66
450          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
             * DDM   ***** Updated *****
1                                        HEC-1 INPUT                                          PAGE 12

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

451          KK     280
452          KM   SUB-BASIN 280
453          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
454          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
455          KM     L =  .77  Kb = .049  Adj. Slope =   84.0
456          BA    .304
457          LG    .300    .250   5.300    .290  15.000
458          UC    .333    .175
459          UA       0       5      16      30      65      77      84      90      94      97
460          UA     100
             * DDM   ***** Preserved *****

461          KK    280C
462          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 260 & SUB-BASIN 280
463          HC       2
             * DDM   ***** Preserved *****

464          KK    R280
465          KM   ROUTE FLOW FROM SUB-BASIN 280 TO SUB-BASIN 300
466          RS       2    FLOW      -1
467          RC    .035    .025    .035    2500    .003
468          RX       0       1       2    23.4    43.4    64.8      65      66
469          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
             * DDM   ***** Updated *****

470          KK     300
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471          KM   SUB-BASIN 300
472          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
473          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
474          KM     L = 1.20  Kb = .044  Adj. Slope =   92.0
475          BA    .677
476          LG    .330    .310   4.350    .420  10.000
477          UC    .421    .205
478          UA       0       5      16      30      65      77      84      90      94      97
479          UA     100
             * DDM   ***** Preserved *****

480          KK    300C
481          KM   HYDROGRAPH COMBINATION OF SUB-BASIN 280 & 300
482          HC       2
             * DDM   ***** Preserved *****

483          KK    R300
484          KM   ROUTE FLOW FROM SUB-BASIN 300 TO START OF FLOODWAY CONCRETE CHANNEL
485          RS       2    FLOW      -1
486          RC    .035    .025    .035    2200    .003
487          RX       0       1       2    23.4    55.4    76.8      77      78
488          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
             * DDM   ***** Preserved *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

489          KK   RR300
490          KM   CONTINUE TO ROUTE FLOW WITHIN CONCRETE CHANNEL TO SPOOK HILL FRS
491          RS       1    FLOW      -1
492          RC    .016    .016    .016    6050   .0146
493          RX       0       1       2     2.1    16.1    16.2      17      18
494          RY     7.5     7.5     7.5       0       0     7.5     7.5     7.5
             *      1       2
             * DDM   ***** Updated *****
             * DDM   ***** Updated *****

495          KK     320
496          KM   SUB-BASIN 320
497          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
498          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .995
499          KM     L = 1.60  Kb = .042  Adj. Slope =  106.0
500          BA    .870
501          LG    .310    .290   4.500    .380  15.000
502          UC    .450    .240
503          UA       0       5      16      30      65      77      84      90      94      97
504          UA     100
             * DDM   ***** Preserved *****

505          KK    D320
506          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
507          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THREE SUBDIVISIONS
508          KM   SIERRA HEIGHTS       FALCON RIDGE    & MARBLE CREEK
509          KM        MAXIMUM VOLUME DIVERSION = 12.27acre-feet
             *      1
510          DT   BS320   12.27
511          DI       0   10000
512          DQ       0   10000
             * DDM   ***** Preserved *****

513          KK   RT320
514          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
515          DR   BS320
             * DDM   ***** Preserved *****

516          KK   SR320
517          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
518          KM   12.27 ACRE-FEETx43560/36x3600=4.1cfs
             *      1
519          RS       1    STOR       0
520          SV       0     .01    12.3
521          SQ       0     4.2     4.2
             * DDM   ***** Preserved *****

522          KK    C320
523          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
524          HC       3
             * DDM   ***** Updated *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

525          KK     340
526          KM   SUB-BASIN 340
527          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
528          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
529          KM     L = 2.40  Kb = .042  Adj. Slope =  160.0
530          BA   1.449
531          LG    .280    .280   4.150    .520  21.000
532          UC    .512    .287
533          UA       0       5      16      30      65      77      84      90      94      97
534          UA     100
             * DDM   ***** Preserved *****

535          KK    D340
536          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
537          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THREE SUBDIVISIONS
538          KM   GRANDVIEW ESTATES    BOULDER MOUNTAIN & 33% OF MESA HIGHLANDS
539          KM        MAXIMUM VOLUME DIVERSION = 56.0 acre-feet
             *      1
540          DT   BS340      56
541          DI       0   10000
542          DQ       0   10000
             * DDM   ***** Preserved *****

543          KK   RT340
544          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
545          DR   BS340
             * DDM   ***** Preserved *****

546          KK   SR340
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547          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
548          KM    56.0 ACRE-FEETx43560/36x3600=18.8cfs
             *      1
549          RS       1    STOR       0
550          SV       0     .01      56
551          SQ       0    18.9    18.9
             * DDM   ***** Preserved *****

552          KK    C340
553          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
554          HC       3

555          KK   RT350
556          KM   RETRIEVE SPLIT FLOW FROM DIVERSION OF SUB-BASIN 350
557          DR   SF350
             * DDM   ***** Preserved *****

558          KK   RR350
559          KM   ROUTING OF FLOW FROM SPLIT OF SUB-BASIN 350 TO 355
560          RS       5    FLOW      -1
561          RC    .045    .045    .045    6150    .023
562          RX       0       1       2      14      29      41      42      43
563          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****
1                                          HEC-1 INPUT                                                    PAGE 15

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

564          KK     355
565          KM   SUB-BASIN 355
566          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
567          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
568          KM     L = 3.00  Kb = .044  Adj. Slope =  284.0
569          BA    .668
570          LG    .340    .340   4.450    .370   4.000
571          UC    .488    .505
572          UA       0       3       5       8      12      20      43      75      90      96
573          UA     100

574          KK    C355
575          KM   HYDROGRAPH COMBINATION OF SUB-BASIN 355 AND THE SPLIT FLOW FROM SUB-BASIN 350
576          HC       2    1.24
             * DDM   ***** Preserved *****

577          KK    R355
578          KM   ROUTING OF FLOW FROM SUB-BASIN 355 TO SUB-BASIN 360
579          RS       8    FLOW      -1
580          RC    .045    .045    .045   11535    .023
581          RX       0       1       2      14      34      46      47      48
582          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

583          KK     370
584          KM   SUB-BASIN 370
585          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
586          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
587          KM     L = 2.90  Kb = .044  Adj. Slope =  294.6
588          BA    .667
589          LG    .340    .320   4.650    .330   9.000
590          UC    .454    .455
591          UA       0       3       5       8      12      20      43      75      90      96
592          UA     100
             * DDM   ***** Preserved *****

593          KK    R370
594          KM   ROUTING OF FLOW FROM SUB-BASIN 370 TO 360
595          RS      10    FLOW      -1
596          RC    .045    .045    .045   11782    .021
597          RX       0       1       2      14      29      41      42      43
598          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

599          KK     360
600          KM   SUB-BASIN 360
601          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
602          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
603          KM     L = 2.10  Kb = .048  Adj. Slope =  124.0
604          BA    .670
605          LG    .260    .270   4.100    .560  20.000
606          UC    .587    .466
607          UA       0       5      16      30      65      77      84      90      94      97
608          UA     100
             * DDM   ***** Preserved *****
1                                          HEC-1 INPUT                                                    PAGE 16

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

609          KK    D360
610          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
611          KM   DETENTION/RETENTION BASINS LOCATED WITHIN 33% OF MESA HIGHLANDS
612          KM        MAXIMUM VOLUME DIVERSION = 28.6 acre-feet
             *      1
613          DT   BS360    28.6
614          DI       0   10000
615          DQ       0   10000
             * DDM   ***** Preserved *****

616          KK   RT360
617          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
618          DR   BS360
             * DDM   ***** Preserved *****

619          KK   SR360
620          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
621          KM    28.6 ACRE-FEETx43560/36x3600=9.6cfs
622          RS       1    STOR       0
623          SV       0     .01    28.6
624          SQ       0     9.6     9.6
             * DDM   ***** Preserved *****

625          KK    360C
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626          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
627          HC       5
             * DDM   ***** Updated *****

628          KK     395
629          KM   SUB-BASIN 395
630          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
631          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
632          KM     L = 1.60  Kb = .051  Adj. Slope =  215.8
633          BA    .198
634          LG    .330    .320   4.900    .300  10.000
635          UC    .383    .468
636          UA       0       3       5       8      12      20      43      75      90      96
637          UA     100
             * DDM   ***** Preserved *****

638          KK    R395
639          KM   ROUTING OF FLOW FROM SUB-BASIN 395 TO SUB-BASIN 380
640          RS      13    FLOW      -1
641          RC    .045    .045    .045   11300    .021
642          RX       0       1       2      11      26      35      36      37
643          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

644          KK     380
645          KM   SUB-BASIN 380
646          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
647          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
648          KM     L = 2.20  Kb = .048  Adj. Slope =  114.0
649          BA    .972
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9.....10

650          LG    .300    .310   4.150    .500   7.000
651          UC    .658    .444
652          UA       0       5      16      30      65      77      84      90      94      97
653          UA     100
             * DDM   ***** Preserved *****

654          KK    D380
655          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
656          KM   DETENTION/RETENTION BASINS LOCATED WITHIN 33% OF MESA HIGHLANDS
657          KM        MAXIMUM VOLUME DIVERSION = 28.6 acre-feet
             *     .1
658          DT   BS380    28.6
659          DI       0   10000
660          DQ       0   10000
             * DDM   ***** Preserved *****

661          KK   RT380
662          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
663          DR   BS380
             * DDM   ***** Preserved *****

664          KK   SR380
665          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
666          KM    28.6 ACRE-FEETx43560/36x3600=9.6cfs
667          RS       1    STOR       0
668          SV       0     .01    28.6
669          SQ       0     9.6     9.6
             * DDM   ***** Preserved *****

670          KK    380C
671          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
672          HC       4
             * DDM   ***** Updated *****

673          KK     390
674          KM   SUB-BASIN 390
675          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
676          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
677          KM     L =  .70  Kb = .050  Adj. Slope =  299.4
678          BA    .244
679          LG    .300    .250   4.700    .380  18.000
680          UC    .204    .107
681          UA       0       5      16      30      65      77      84      90      94      97
682          UA     100
             * DDM   ***** Preserved *****

683          KK    D390
684          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
685          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THUNDER MOUNTAIN ESTATES
686          KM        MAXIMUM VOLUME DIVERSION  = 3.5 acre-feet
             *     1
687          DT   BS390     3.5
688          DI       0   10000
689          DQ       0   10000
             * DDM   ***** Preserved *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

690          KK   RT390
691          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
692          DR   BS390
             * DDM   ***** Preserved *****

693          KK   SR390
694          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
695          KM     3.5 ACRE-FEETx43560/36x3600=1.2cfs
696          RS       1    STOR       0
697          SV       0     .01     3.5
698          SQ       0     1.2     1.2
             * DDM   ***** Preserved *****

699          KK    390C
700          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
701          HC       2
             * DDM   ***** Preserved *****

702          KK   RR390
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703          KM   FROM SUB-BASIN 390 TO SUB-BASIN 400
704          RS       8    FLOW      -1
705          RC    .045    .045    .045    9029    .020
706          RX       0       1       2      14      19      31      32      33
707          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

708          KK     400
709          KM   SUB-BASIN 400
710          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
711          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
712          KM     L = 1.64  Kb = .046  Adj. Slope =  110.0
713          BA    .616
714          LG    .320    .320   3.130    .930   6.000
715          UC    .592    .405
716          UA       0       5      16      30      65      77      84      90      94      97
717          UA     100
             * DDM   ***** Preserved *****

718          KK    D400
719          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
720          KM   DETENTION/RETENTION BASIN LOCATED WITHIN SAGUARO VISTA SUBDIVISION
721          KM        MAXIMUM VOLUME DIVERSION = 5.6 ACRE-FEET
             *      1
722          DT   BS400     5.6
723          DI       0   10000
724          DQ       0   10000
             * DDM   ***** Preserved *****

725          KK   RT400
726          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
727          DR   BS400
             * DDM   ***** Preserved *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

728          KK   SR400
729          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
730          KM     5.6 ACRE-FEETx43560/36x3600 = 2 cfs
731          RS       1    STOR       0
732          SV       0     .01     5.6
733          SQ       0       2       2
             * DDM   ***** Preserved *****

734          KK    C400
735          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
736          HC       2
             * DDM   ***** Preserved *****

737          KK    400C
738          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
739          HC       3
             * DDM   ***** Updated *****

740          KK     385
741          KM   SUB-BASIN 385
742          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
743          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
744          KM     L = 2.30  Kb = .044  Adj. Slope =  303.0
745          BA    .647
746          LG    .350    .370   5.600    .210  13.000
747          UC    .375    .311
748          UA       0       3       5       8      12      20      43      75      90      96
749          UA     100
             * DDM   ***** Preserved *****

750          KK    D385
751          KM   DIVERT FLOW INTO SUB-BASINS 415 & 420
752          DT   SF385
753          DI       0   10000
754          DQ       0    4000
             * DDM   ***** Preserved *****

755          KK    385R
756          KM   ROUTING OF FLOW DIVERSION FROM SUB-BASIN 385 INTO SUB-BASIN 420
757          RS       9    FLOW      -1
758          RC    .045    .045    .045   10233    .022
759          RX       0       1       2      14      19      31      32      33
760          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

761          KK     420
762          KM   SUB-BASIN 420
763          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
764          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .995
765          KM     L = 1.91  Kb = .042  Adj. Slope =  120.0
766          BA    .849
767          LG    .310    .270   3.880    .580  12.000
768          UC    .512    .325
769          UA       0       5      16      30      65      77      84      90      94      97
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

770          UA     100
             * DDM   ***** Preserved *****

771          KK    D420
772          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
773          KM   DETENTION/RETENTION BASINS LOCATED WITHIN GRAY FOX SUBDIVISION
774          KM        MAXIMUM VOLUME DIVERSION = 8.65 acre-feet
             *      1
775          DT   BS420    8.65
776          DI       0   10000
777          DQ       0   10000
             * DDM   ***** Preserved *****

778          KK   RT420
779          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
780          DR   BS420
             * DDM   ***** Preserved *****
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781          KK   SR420
782          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
783          KM   38.55 ACRE-FEETx43560/36x3600=13cfs
784          RS       1    STOR       0
785          SV       0     .01   38.55
786          SQ       0      13      13
             * DDM   ***** Preserved *****

787          KK    420C
788          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
789          HC       4   10.77
             * DDM   ***** Updated *****

790          KK     440
791          KM   SUB-BASIN 440
792          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
793          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
794          KM     L =  .40  Kb = .039  Adj. Slope =  315.0
795          BA    .080
796          LG    .190    .380   6.400    .140  13.000
797          UC    .129    .077
798          UA       0       3       5       8      12      20      43      75      90      96
799          UA     100
             * DDM   ***** Preserved *****

800          KK     R70
801          KM   ROUTE FLOW FROM SUB-BASIN 440 TO C108
802          RS       1    FLOW      -1
803          RC     .05    .035     .05    2250     .08
804          RX    1000    1025    1050    1070    1075    1095    1120    1145
805          RY      30    22.9    15.7      10      10    15.7    22.9      30
             * DDM   ***** Updated *****
1                                        HEC-1 INPUT                                          PAGE 21

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

806          KK     441
807          KM   SUB-BASIN 441
808          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
809          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
810          KM     L =  .28  Kb = .069  Adj. Slope =  315.0
811          BA    .010
812          LG    .300    .250   5.600    .220   5.000
813          UC    .150    .225
814          UA       0       5      16      30      65      77      84      90      94      97
815          UA     100
             * DDM   ***** Preserved *****

816          KK    C108
817          KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 440 & 441
818          HC       2
             * DDM   ***** Preserved *****

819          KK    DIV4
820          KM        SPLIT FLOW WITH TWO 42 INCH PIPES TO WEST AND SOUTH
             *      1
821          DT   SPLIT
822          DI       0      14      40      82     120     154     180
823          DQ       0       7      20      41      60      77      90
             * DDM   ***** Preserved *****

824          KK    R108
825          KM        ROUTE FLOW FROM SUB-BASIN C108 TO C67
826          RS       2    FLOW      -1
827          RC     .05    .035     .05    3200      .1
828          RX    1000    1025    1050    1070    1075    1095    1120    1145
829          RY      30    22.9    15.7      10      10    15.7    22.9      30
             * DDM   ***** Updated *****

830          KK     442
831          KM   SUB-BASIN 442
832          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
833          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
834          KM     L =  .83  Kb = .055  Adj. Slope =  274.2
835          BA    .100
836          LG    .300    .270   3.290    .770   5.000
837          UC    .258    .264
838          UA       0       5      16      30      65      77      84      90      94      97
839          UA     100
             * DDM   ***** Preserved *****

840          KK     C67
841          KM   COMBINE FLOW FROM SUB-BASIN 442 & DIV4
842          HC       2
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 22

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

843          KK    DIV6
844          KM        OFFLINE BASIN WITH 25 FOOT WEIR SET AT 2.5 FEET ABOVE BOTTOM OF CHANNEL
845          KM        FLOW CONTINUES BEYOND BASIN THROUGH 2-30" PIPES
             *      1
846          DT  BASIN4
847          DI       0      10      32      44    79.9   132.5     198   272.9   356.8
848          DQ       0       0       0       0    23.9    67.5     124   190.9   266.8
             * DDM   ***** Preserved *****

849          KK  RTDIV6
850          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
851          DR  BASIN4
             * DDM   ***** Preserved *****

852          KK  RFDIV6
853          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
854          KM     3.3 ACRE-FEETx43560/36x3600=1.1cfs
             *      1
855          RS       1    STOR       0
856          SV       0     .01     3.3
857          SQ       0     1.1     1.1
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            * DDM   ***** Preserved *****

858         KK   CDIV6
859         KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
860         HC       2
            * DDM   ***** Updated *****

861         KK     443
862         KM   SUB-BASIN 443
863         KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
864         KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
865         KM     L =  .71  Kb = .050  Adj. Slope =  315.0
866         BA    .080
867         LG    .250    .190   8.000    .080  10.000
868         UC    .196    .194
869         UA       0       5      16      30      65      77      84      90      94      97
870         UA     100
            * DDM   ***** Preserved *****

871         KK   DIV66
872         KM        DIVERT FLOW INTO 3 NATURAL WASHES WITH ONE 24" PIPE IN EACH WASH.
873         KM        EACH PIPE CAPACITY BASED ON 4 FEET OF HEAD
874         DT   WSH66
875         DI       0      78     100     200
876         DQ       0      78      78      78
            * DDM   ***** Preserved *****

877         KK    R113
878         KM        ROUTE FLOW FROM C113 TO C114
879         RS       1    FLOW      -1
880         RC    .019    .019    .019    1300    .029
881         RX    1000    1004    1008    1012    1018    1022    1026    1030
882         RY      17   15.33   12.67      10      10   12.67   15.33      17
            * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                                    PAGE 23

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

883         KK    C114
884         KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 67 AND C113
885         HC       2
            * DDM   ***** Updated *****

886         KK     444
887         KM   SUB-BASIN 444
888         KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
889         KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
890         KM     L =  .33  Kb = .034  Adj. Slope =  315.0
891         BA    .040
892         LG    .130    .350   4.450    .320   1.000
893         UC    .112    .084
894         UA       0       3       5       8      12      20      43      75      90      96
895         UA     100
            * DDM   ***** Preserved *****

896         KK     R58
897         KM   ROUTE FLOW FROM SUB-BASIN 444 TO C107
898         RS       1    FLOW      -1
899         RC     .05    .035     .05    2370   .0516
900         RX    1000    1010    1020    1050    1055    1085    1095    1105
901         RY      19      18      17      10      10      17      18      19
            * DDM   ***** Updated *****

902         KK     445
903         KM   SUB-BASIN 445
904         KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
905         KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
906         KM     L =  .82  Kb = .036  Adj. Slope =  315.0
907         BA    .190
908         LG    .170    .320   3.470    .590   3.000
909         UC    .192    .130
910         UA       0       5      16      30      65      77      84      90      94      97
911         UA     100
            * DDM   ***** Preserved *****

912         KK    C107
913         KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 444 & 445
914         HC       2
            * DDM   ***** Preserved *****

915         KK    R107
916         KM        ROUTE FLOW FROM C107 TO C109
917         RS       1    FLOW      -1
918         RC     .05    .035     .05     700   .0516
919         RX    1000    1010    1020    1050    1055    1085    1095    1105
920         RY      19      18      17      10      10      17      18      19
            * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                                    PAGE 24

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

921         KK    RTB2
922         KM        RETRIEVE DIVERTED FLOW FROM BASIN 1
            *      1
923         DR   SPLIT
            * DDM   ***** Preserved *****

924         KK  RSPLIT
925         KM        ROUTE FLOW FROM SPLIT TO C109
926         RS       1    FLOW      -1
927         RC     .05    .035     .05     800     .05
928         RX    1000    1025    1050    1070    1075    1095    1120    1145
929         RY      30    22.9    15.7      10      10    15.7    22.9      30
            * DDM   ***** Updated *****

930         KK     446
931         KM   SUB-BASIN 446
932         KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
933         KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
934         KM     L =  .46  Kb = .061  Adj. Slope =  303.9
935         BA    .040
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 936          LG    .270    .250   4.500    .400  19.000
 937          UC    .183    .189
 938          UA       0       5      16      30      65      77      84      90      94      97
 939          UA     100
              * DDM   ***** Preserved *****

 940          KK    C109
 941          KM        COMBINE HYDROGRAPHS FROM COMBINES C107 AND C108
 942          HC       3
              * DDM   ***** Preserved *****

 943          KK    DIV5
 944          KM        DIVERT FLOW INTO WASHES TOWARDS WEST
 945          KM        DIVERSION THROUGH 36" PIPE WITH 3 FEET OF HEAD
              *      1
 946          DT  WSH404
 947          DI       0    40.7    71.2   121.6     190     276   379.4   500.6
 948          DQ       0      35      35      35      35      35      35      35
              * DDM   ***** Preserved *****

 949          KK    R109
 950          KM        ROUTE FLOW FROM C109 TO C110
 951          RS       1    FLOW      -1
 952          RC    .019    .019    .019    3080     .05
 953          RX    1000    1005    1010    1015    1025    1030    1035    1040
 954          RY   13.75    12.5   11.25      10      10   11.25    12.5   13.75
              * DDM   ***** Updated *****

 955          KK     447
 956          KM   SUB-BASIN 447
 957          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 958          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
 959          KM     L =  .49  Kb = .056  Adj. Slope =  221.0
 960          BA    .090
1                                        HEC-1 INPUT                                          PAGE 25

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

 961          LG    .250    .270   3.350    .870  30.000
 962          UC    .208    .145
 963          UA       0       5      16      30      65      77      84      90      94      97
 964          UA     100
              * DDM   ***** Preserved *****

 965          KK   RT404
 966          KM        RETRIEVE DIVERTED FLOW FOR WASH 109
 967          DR  WSH404
              * DDM   ***** Preserved *****

 968          KK    R404
 969          KM        ROUTE FLOW FROM C110 TO C110
 970          RS       5    FLOW      -1
 971          RC    .019    .019    .019    3540     .03
 972          RX    1000    1012    1016    1020    1025    1029    1033    1045
 973          RY      15      12      11      10      10      11      12      15
              * DDM   ***** Preserved *****

 974          KK    C110
 975          KM   COMBINE HYDROGRAPHS FROM SUB-BASIN 447 AND R404
 976          HC       3
              * DDM   ***** Preserved *****

 977          KK    R110
 978          KM        ROUTE FLOW FROM C110 TO C115
 979          RS       1    FLOW      -1
 980          RC    .019    .019    .019     580   .0291
 981          RX    1000    1012    1016    1020    1035    1039    1043    1055
 982          RY      15      12      11      10      10      11      12      15
              * DDM   ***** Preserved *****

 983          KK    C115
 984          KM        COMBINE HYDROGRAPHS FROM C114 AND C110
 985          HC       2
              * DDM   ***** Preserved *****

 986          KK    R115
 987          KM        ROUTE FLOW FROM C115 TO C119
 988          RS       1    FLOW      -1
 989          RC    .019    .019    .019    2125    .029
 990          RC    .019    .019    .019     580   .0291
 991          RX    1000    1012    1016    1020    1035    1039    1043    1055
 992          RY      15      12      11      10      10      11      12      15
              * DDM   ***** Updated *****

 993          KK     448
 994          KM   SUB-BASIN 448
 995          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 996          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
 997          KM     L =  .36  Kb = .042  Adj. Slope =  315.0
 998          BA    .045
 999          LG    .170    .310   4.200    .390  11.000
1000          UC    .133    .102
1001          UA       0       5      16      30      65      77      84      90      94      97
1                                        HEC-1 INPUT                                          PAGE 26

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

1002          UA     100
              * DDM   ***** Updated *****

1003          KK     449
1004          KM   SUB-BASIN 449
1005          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1006          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
1007          KM     L =  .40  Kb = .054  Adj. Slope =  315.0
1008          BA    .050
1009          LG    .260    .280   3.500    .640   6.000
1010          UC    .167    .134
1011          UA       0       5      16      30      65      77      84      90      94      97
1012          UA     100
              * DDM   ***** Preserved *****

1013          KK   C6364
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1014        KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 448 & 449
1015        HC       2
            * DDM   ***** Preserved *****

1016        KK   R6364
1017        KM   ROUTE FLOW FROM C116 AND SUB-BASINS 448 AND 449
1018        RS       2    FLOW      -1
1019        RC     .05    .035     .05    4375   .0333
1020        RX    1000    1027    1053    1080    1090    1117    1143    1170
1021        RY      15   13.33   11.67      10      10   11.67   13.33      15
            * DDM   ***** Updated *****

1022        KK     450
1023        KM   SUB-BASIN 450
1024        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1025        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
1026        KM     L =  .85  Kb = .057  Adj. Slope =  210.5
1027        BA    .070
1028        LG    .340    .350   3.630    .570   4.000
1029        UC    .296    .383
1030        UA       0       3       5       8      12      20      43      75      90      96
1031        UA     100
            * DDM   ***** Updated *****

1032        KK     451
1033        KM   SUB-BASIN 451
1034        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1035        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
1036        KM     L =  .57  Kb = .063  Adj. Slope =  175.0
1037        BA    .025
1038        LG    .340    .340   3.290    .750   3.000
1039        UC    .271    .453
1040        UA       0       3       5       8      12      20      43      75      90      96
1041        UA     100
            * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 27

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


1042        KK    RT66
1043        KM        RETRIEVE DIVERTED FLOW FROM SUB-BASIN 66
1044        DR   WSH66
            * DDM   ***** Updated *****

1045        KK     452
1046        KM   SUB-BASIN 452
1047        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1048        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
1049        KM     L =  .43  Kb = .055  Adj. Slope =  315.0
1050        BA    .040
1051        LG    .260    .280   3.700    .550   9.000
1052        UC    .171    .166
1053        UA       0       5      16      30      65      77      84      90      94      97
1054        UA     100
            * DDM   ***** Preserved *****

1055        KK   C6465
1056        KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 443 AND 452
1057        HC       2
            * DDM   ***** Preserved *****

1058        KK   R6566
1059        KM        ROUTE FLOW FROM DIVERSIONS 65 AND 66 TO C116
1060        RS       2    FLOW      -1
1061        RC     .05    .035     .05    2435   .0282
1062        RX    1000    1045    1090    1150    1160    1220    1265    1310
1063        RY      25      23      20      10      10      20      23      25
            * DDM   ***** Preserved *****

1064        KK    C116
1065        KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 450 & 451 AND R6364 & R6465
1066        HC       4
            * DDM   ***** Preserved *****

1067        KK  BASIN5
1068        KM        RESERVOIR WITHIN PARCEL 31      2-48 INCH PIPES AT OUTFALL
1069        KM        BASIN 5 FEET DEEP
1070        RS       1    ELEV       0
1071        SV       0     4.5     9.9
1072        SQ       0      69     190
1073        SE       0     2.5       5
            * DDM   ***** Preserved *****

1074        KK    R116
1075        KM   ROUTE FLOW FROM C116 TO C117
1076        RS       2    FLOW      -1
1077        RC     .05    .035     .05    1300   .0333
1078        RX    1000    1100    1200    1300    1320    1420    1520    1620
1079        RY      13      12      11      10      10      11      12      13
            * DDM   ***** Updated *****
1                                        HEC-1 INPUT                                          PAGE 28

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


1080        KK     453
1081        KM   SUB-BASIN 453
1082        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1083        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
1084        KM     L =  .58  Kb = .058  Adj. Slope =  138.0
1085        BA    .060
1086        LG    .290    .300   3.290    .820  18.000
1087        UC    .275    .284
1088        UA       0       5      16      30      65      77      84      90      94      97
1089        UA     100
            * DDM   ***** Preserved *****

1090        KK    C117
1091        KM   COMBINE HYDROGRAPHS FROM SUB-BASIN 453 AND R116
1092        HC       2
            * DDM   ***** Preserved *****
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1093          KK    C118
1094          KM   COMBINE HYDROGRAPHS FROM R115 AND C117
1095          HC       2
              * DDM   ***** Preserved *****

1096          KK    R118
1097          KM        ROUTE FLOW FROM C118 TO  DIV7
1098          RS       1    FLOW      -1
1099          RC    .019    .019    .019    1500    .024
1100          RX    1000    1012    1016    1020    1035    1039    1043    1055
1101          RY      15      12      11      10      10      11      12      15
              * DDM   ***** Preserved *****

1102          KK    DIV7
1103          KM        OFFLINE BASIN AT NORTH MOUNTAIN RIDGE   FLOWS ENTER BASIN OVER
1104          KM        30' WEIR SET AT 5.3' ABOVE THE CHANNEL BOTTOM
              *      1
1105          DT  BASIN6
1106          DI       0     363     487     563     645     844
1107          DQ       0       3      47      83     125     244
              * DDM   ***** Preserved *****

1108          KK  RTDIV7
1109          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
1110          DR  BASIN6
              * DDM   ***** Preserved *****

1111          KK  RFDIV7
1112          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
1113          KM     3.6 ACRE-FEETx43560/36x3600=1.2cfs
1114          RS       1    STOR       0
1115          SV       0     .01     3.6
1116          SQ       0     1.2     1.2
              * DDM   ***** Preserved *****
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1117          KK   CDIV7
1118          KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
1119          HC       2
              * DDM   ***** Updated *****

1120          KK     454
1121          KM   SUB-BASIN 454
1122          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1123          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1124          KM     L = 1.23  Kb = .051  Adj. Slope =  163.0
1125          BA    .180
1126          LG    .300    .310   3.780    .560  14.000
1127          UC    .379    .395
1128          UA       0       5      16      30      65      77      84      90      94      97
1129          UA     100
              * DDM   ***** Preserved *****

1130          KK    C119
1131          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 454 AND C119
              *      1       2
1132          HC       2
              * DDM   ***** Preserved *****

1133          KK    R454
1134          KM   ROUTE FLOW FROM C119 TO 415C
1135          RS       8    FLOW      -1
1136          RC    .045    .035    .045    6000    .005
1137          RX    1000    1010    1020    1036    1041    1057    1067    1077
1138          RY      15    14.5      14      10      10      14    14.5      15
              * DDM   ***** Updated *****

1139          KK     415
1140          KM   SUB-BASIN 415
1141          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1142          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
1143          KM     L = 2.10  Kb = .046  Adj. Slope =  266.0
1144          BA    .448
1145          LG    .310    .270   4.250    .480  15.000
1146          UC    .404    .387
1147          UA       0       5      16      30      65      77      84      90      94      97
1148          UA     100
              * DDM   ***** Preserved *****

1149          KK   RT385
1150          KM   RETRIEVE FLOW FROM DIVERSION OF SUB-BASIN 385 INTO SUB-BASIN 415
1151          DR   SF385
              * DDM   ***** Preserved *****

1152          KK   RR385
1153          KM   ROUTING OF SPLIT FLOW FROM SUB-BASIN 385 TO SUB-BASIN 415
1154          RS       5    FLOW      -1
1155          RC    .045    .045    .045    5878    .024
1156          RX       0       1       2      14      19      31      32      33
1157          RY       4       4       4       0       0       4       4       4
              * DDM   ***** Preserved *****
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1158          KK    415C
1159          KM   HYDROGRAPH COMBINATION OF SUB-BASINS 415, R454 & SPLIT FLOW FROM 385
1160          HC       3
              * DDM   ***** Preserved *****

1161          KK    R415
1162          KM   ROUTING OF FLOW FROM 415C TO 455C
1163          RS       3    FLOW      -1
1164          RC    .045    .045    .045    3900    .021
1165          RX       0       1       2      14      44      56      57      58
1166          RY       4       4       4       0       0       4       4       4
              * DDM   ***** Updated *****

1167          KK     455
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1168        KM   SUB-BASIN 455
1169        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1170        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .993
1171        KM     L = 1.70  Kb = .041  Adj. Slope =  146.0
1172        BA   1.111
1173        LG    .270    .280   3.700    .640  24.000
1174        UC    .421    .204
1175        UA      0       5      16      30      65      77      84      90      94      97
1176        UA    100
            * DDM   ***** Preserved *****

1177        KK    D455
1178        KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
1179        KM   DETENTION/RETENTION BASINS LOCATED WITHIN LAS SENDAS ADDENDUM III
1180        KM   FOR BASIN #: 30      34      43      47&58
1181        KM        MAXIMUM VOLUME DIVERSION = 74.1 acre-feet
            *      1
1182        DT   BS455    74.1
1183        DI       0   10000
1184        DQ       0   10000
            * DDM   ***** Preserved *****

1185        KK   RT455
1186        KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
1187        DR   BS455
            * DDM   ***** Preserved *****

1188        KK   SR455
1189        KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
1190        KM    74.1 ACRE-FEETx43560/36x3600=25cfs
1191        RS       1    STOR       0
1192        SV       0     .01    74.1
1193        SQ       0      25      25
            * DDM   ***** Preserved *****
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LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1194        KK    C455
1195        KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 455 AND DIVERTED BASIN STORAGE OF 455
1196        HC       2
            * DDM   ***** Preserved *****

1197        KK    455C
1198        KM  HYDROGRAPH COMBINATION OF 420C, R415 AND C455
            *      1       2
1199        HC       3
            * DDM   ***** Preserved *****

1200        KK   SR440
1201        KM   SPOOK HILL FRS PLANS DATED 6/15/77
1202        KM   OUTLET PIPE=7'x7.5'RCBC; L=70 INLET INV.=1566; OUTLET INV.=1566
1203        KM   EMERGENCY SPILLWAY ELEV.=1582; PRINCIPLE SPILLWAY ELEV.=1577.5
1204        KM   STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 200 ACRE-FEET
1205        RS       1    STOR       0
1206        SV       0      10     100     300     500     680
1207        SQ       0     640     720     780     825     860
1208        SE      66    77.5      79    80.2    81.2      82
            * DDM   ***** Preserved *****

1209        KK   RR455
1210        KM   ROUTE FLOW FROM SPOOK HILL FRS TO SUB-BASIN 462
1211        RS       9    FLOW      -1
1212        RC    .035    .025    .035    9200    .002
1213        RX       0       1       2      28      58      84      85      86
1214        RY    13.5    13.5    13.5       0       0    13.5    13.5    13.5
            * DDM   ***** Updated *****

1215        KK     456
1216        KM   SUB-BASIN 456
1217        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1218        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
1219        KM     L =  .94  Kb = .045  Adj. Slope =  315.0
1220        BA    .260
1221        LG    .300    .380   5.600    .200  12.000
1222        UC    .217    .139
1223        UA      0       5      16      30      65      77      84      90      94      97
1224        UA    100
            * DDM   ***** Preserved *****

1225        KK    DIV1
1226        KM        DIVERT FLOW INTO OFFLINE DETENTION BASIN
1227        KM        WEIR FOR BASIN SET AT 4 FEET ABOVE CHANNEL BOTTOM
            *      1
1228        DT  BASIN1
1229        DI       0    11.1   127.9   234.4   577.7   789.9  1025.5  1280.9  1555.7
1230        DQ       0       0       0    47.7     248   381.8   533.6   701.5     884
            * DDM   ***** Preserved *****
```



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

1231        KK    DIV2
1232        KM        SPLIT OUT FLOW FOR WASHES THAT FLOW TO THE SOUTH FROM
1233        KM        WASHES THAT DRAIN TO THE WES, SOUTHERN WASHES FED BY 30" & 24" PIPE
1234        DT    WA30
1235        DI       0    11.1   127.9   189.6   329.7     408   491.9   579.4   671.7
1236        DQ       0    11.1    38.4    48.2      63    69.5      76      81      86
            * DDM   ***** Preserved *****

1237        KK    R456
1238        KM        ROUTE FLOW FROM SUB-BASIN 51 TO C101
1239        RS       2    FLOW      -1
1240        RC     .05    .035     .05    3800    .044
1241        RX    1000    1010    1020    1036    1041    1057    1067    1077
1242        RY   14.88   14.44      14      10      10      14   14.44   14.88
            * DDM   ***** Updated *****

1243        KK     457
1244        KM   SUB-BASIN 457
1245        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
```

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1246        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1247        KM     L = 1.01  Kb = .045  Adj. Slope =  308.8
1248        BA    .190
1249        LG    .270    .330   3.950    .460   6.000
1250        UC    .237    .195
1251        UA       0       5      16      30      65      77      84      90      94      97
1252        UA     100
            * DDM   ***** Preserved *****

1253        KK    C101
1254        KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 50 AND 51
1255        HC       2
            * DDM   ***** Preserved *****

1256        KK    DIV3
1257        KM        RESERVOIR AT THE EDGE OF THE PROPERTY   FLOW FROM CHANNEL
1258        KM        DIVERTED  INTO OFFLINE BASIN A 25' WEIR SET AT ELEVATION 1808 FT
            *      1
1259        DT  BASIN2
1260        DI       0      36      70     110     180   313.5     402   500.9
1261        DQ       0       0       0       0       0    67.5     124   190.9
            * DDM   ***** Preserved *****

1262        KK  RTDIV3
1263        KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
1264        DR  BASIN2
            * DDM   ***** Preserved *****

1265        KK  RFDIV3
1266        KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
1267        KM     5.0 ACRE-FEETx43560/36x3600=1.7cfs
1268        RS       1    STOR       0
1269        SV       0     .01       5
1270        SQ       0     1.7     1.7
            * DDM   ***** Preserved *****
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LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1271        KK   CDIV3
1272        KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
1273        HC       2
            * DDM   ***** Preserved *****

1274        KK    R101
1275        KM        ROUTE FLOW FROM SUBBASIN C101 TO C103
1276        RS       1    FLOW      -1
1277        RC     .05    .035     .05    1450     .05
1278        RX    1000    1010    1020    1036    1041    1057    1067    1077
1279        RY      15    14.5      14      10      10      14    14.5      15
            * DDM   ***** Updated *****

1280        KK     458
1281        KM   SUB-BASIN 458
1282        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1283        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1284        KM     L =  .76  Kb = .048  Adj. Slope =  299.0
1285        BA    .190
1286        LG    .290    .330   5.800    .190   6.000
1287        UC    .204    .131
1288        UA       0       5      16      30      65      77      84      90      94      97
1289        UA     100
            * DDM   ***** Preserved *****

1290        KK    C103
1291        KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 55 AND C101
1292        HC       2
            * DDM   ***** Preserved *****

1293        KK    R103
1294        KM        ROUTE FLOW FROM SUBBASIN C103 TO C106
1295        RS       1    FLOW      -1
1296        RC     .05    .035     .05     900     .03
1297        RX    1000    1010    1020    1030    1050    1060    1070    1080
1298        RY   13.16   12.83    12.5      10      10    12.5   12.83   13.16
            * DDM   ***** Preserved *****

1299        KK    RT30
1300        KM        RETRIEVE DIVERTED FLOW FOR WASH BELOW 30 INCH PIPE
1301        DR    WA30
            * DDM   ***** Preserved *****

1302        KK     R30
1303        KM        ROUTE FLOW FROM WASH DIVERSION TO COMBINE C52
1304        RS       1    FLOW      -1
1305        RC     .05    .035     .05    1630     .05
1306        RX    1000    1010    1020    1036    1041    1057    1067    1077
1307        RY      15    14.5      14      10      10      14    14.5      15
            * DDM   ***** Preserved *****
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LINE        ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1308        KK    RTB1
1309        KM        RETRIEVE DIVERTED FLOW FROM BASIN 1
            *      1       2
1310        DR  BASIN1
            * DDM   ***** Preserved *****

1311        KK      B1
1312        KM        ROUTE FLOW THROUGH OFFLINE DETENTION BASIN
1313        KM        FLOW OUTLETS THROUGH A 30 INCH OUTLET PIPE
            *      1       2
1314        RS       1    ELEV       0
1315        SV              .7     1.4     2.3     2.7     3.2
1316        SQ       0       5      16      28    32.5      37
1317        SE       0       1       2       3     3.5       4
            * DDM   ***** Preserved *****

1318        KK     RB1
1319        KM        ROUTE FLOW FROM BASIN DIVERSION TO COMBINE C52
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1320          RS       2    FLOW      -1
1321          RC     .05    .035     .05    1720     .05
1322          RX    1000    1010    1020    1036    1041    1057    1067    1077
1323          RY      15    14.5      14      10      10      14    14.5      15
              * DDM   ***** Preserved *****

1324          KK    CDIV
1325          KM        COMBINE FLOWS FROM WA30 AND BASIN 1
1326          HC       2     .12
              * DDM   ***** Updated *****

1327          KK     459
1328          KM   SUB-BASIN 459
1329          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1330          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
1331          KM     L =  .35  Kb = .052  Adj. Slope =  251.6
1332          BA    .030
1333          LG    .220    .300   3.330    .710   8.000
1334          UC    .162    .157
1335          UA       0       5      16      30      65      77      84      90      94      97
1336          UA     100
              * DDM   ***** Preserved *****

1337          KK     C52
1338          KM        COMBINE FLOWS FROM SUB-BASIN 52 WA30 AND BASIN 1
1339          HC       2
              * DDM   ***** Preserved *****

1340          KK     R52
1341          KM        ROUTE FLOW FROM SUBBASIN 52 TO C102
1342          RS       2    FLOW      -1
1343          RC     .05    .035     .05    2000     .05
1344          RX    1000    1010    1020    1036    1041    1057    1067    1077
1345          RY      15    14.5      14      10      10      14    14.5      15
              * DDM   ***** Updated *****
1                                   HEC-1 INPUT                                          PAGE 35

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

1346          KK     460
1347          KM   SUB-BASIN 460
1348          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1349          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1350          KM     L =  .62  Kb = .058  Adj. Slope =  194.0
1351          BA    .140
1352          LG    .250    .260   3.740    .690  27.000
1353          UC    .242    .160
1354          UA       0       5      16      30      65      77      84      90      94      97
1355          UA     100
              * DDM   ***** Preserved *****

1356          KK    C102
1357          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 52 AND 53
1358          HC       2
              * DDM   ***** Preserved *****

1359          KK  BASIN3
1360          KM        RESERVOIR AT CLUBHOUSE LOCATION 1-30 INCH PIPE AT OUTFALL
1361          KM        BOTTOM OF BASIN AT 6 FEET ABOVE 1795 ELEVATION
1362          RS       1    ELEV       0
1363          SA       0       0       0       0     .34    1.59    1.81    1.96    2.13     2.3
              *      0       0       0       0    1.14    3.25    5.52    9.23
1364          SQ       0      22      45    47.4      48      51      57      62      67      73
1365          SE    1795  1797.5    1800  1800.4  1800.5    1801    1802    1803    1804  1805.5
              * DDM   ***** Preserved *****

1366          KK      R3
1367          KM        ROUTE FLOW FROM C102 to C106
1368          RS       4    FLOW      -1
1369          RC     .05     .03     .05    2750   .0375
1370          RX    1000    1010    1020    1052    1086    1118    1128    1138
1371          RY    19.2    18.4      18      10      10      18    18.4    19.2
              * DDM   ***** Updated *****

1372          KK     461
1373          KM   SUB-BASIN 461
1374          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1375          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1376          KM     L =  .83  Kb = .052  Adj. Slope =  181.0
1377          BA    .120
1378          LG    .270    .250   4.250    .450  21.000
1379          UC    .271    .250
1380          UA       0       5      16      30      65      77      84      90      94      97
1381          UA     100
              * DDM   ***** Preserved *****

1382          KK    C104
1383          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 54 AND R102
1384          HC       2
              * DDM   ***** Preserved *****
1                                   HEC-1 INPUT                                          PAGE 36

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

1385          KK    C106
1386          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN C103 AND C104
1387          HC       2
              * DDM   ***** Preserved *****

1388          KK    R106
1389          KM        ROUTE FLOW FROM C106 TO C49
1390          RS       2    FLOW      -1
1391          RC     .05    .035     .05    3950    .033
1392          RX    1000    1010    1020    1030    1050    1060    1070    1080
1393          RY   13.16   12.83    12.5      10      10    12.5   12.83   13.16
              * DDM   ***** Updated *****

1394          KK     462
1395          KM   SUB-BASIN 462
1396          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1397          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
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1398          KM     L =  .97  Kb = .045  Adj. Slope =  297.7
1399          BA    .301
1400          LG    .300    .330   5.300    .240  12.000
1401          UC    .225    .137
1402          UA       0       5      16      30      65      77      84      90      94      97
1403          UA     100
              * DDM   ***** Preserved *****

1404          KK     C56
1405          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 56 AND C106
              *      1       2
1406          HC       2
              * DDM   ***** Updated *****

1407          KK     480
1408          KM   SUB-BASIN 480
1409          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1410          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
1411          KM     L = 1.21  Kb = .042  Adj. Slope =  165.0
1412          BA    .731
1413          LG    .270    .270   3.580    .730  27.000
1414          UC    .325    .148
1415          UA       0       5      16      30      65      77      84      90      94      97
1416          UA     100
              * DDM   ***** Preserved *****

1417          KK    D480
1418          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
1419          KM   DETENTION/RETENTION BASINS LOCATED WITHIN LAS SENDAS ADDENDUM III
1420          KM   FOR BASIN #: 18 & 26
1421          KM        MAXIMUM VOLUME DIVERSION = 16.5 acre-feet
              *      1
1422          DT   BS480    16.5
1423          DI       0   10000
1424          DQ       0   10000
              * DDM   ***** Preserved *****
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1425          KK   RT480
1426          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
1427          DR   BS480
              * DDM   ***** Preserved *****

1428          KK   SR480
1429          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
1430          KM    16.5 ACRE-FEETx43560/36x3600=5.5cfs
1431          RS       1    STOR       0
1432          SV       0     .01    16.5
1433          SQ       0     5.6     5.6
              * DDM   ***** Preserved *****

1434          KK    C480
1435          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
1436          HC       2
              * DDM   ***** Preserved *****

1437          KK    480C
1438          KM   HYDROGRAPH COMBINATION FOR THE ENTIRE WATERSHED AT THE SALT RIVER
1439          HC       3    2.09
              * DDM   ***** Preserved *****

1440          KK   RR480
1441          KM   ROUTE FLOW FROM SUB-BASIN 480 TO SUB-BASIN 500
1442          RS       1    FLOW      -1
1443          RC    .025    .025    .025    6500     .05
1444          RX       0       1       2      28      58      84      85      86
1445          RY    13.5    13.5    13.5       0       0    13.5    13.5    13.5
              * DDM   ***** Updated *****

1446          KK     500
1447          KM   SUB-BASIN 500
1448          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1449          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
1450          KM     L = 2.77  Kb = .042  Adj. Slope =  286.8
1451          BA    .930
1452          LG    .350    .400   6.000    .170   9.000
1453          UC    .421    .333
1454          UA       0       3       5       8      12      20      43      75      90      96
1455          UA     100
              * DDM   ***** Preserved *****

1456          KK    500C
1457          KM   HYDROGRAPH COMBINATION FOR THE ENTIRE WATERSHED AT THE SALT RIVER
1458          HC       2    2.84
1459          ZZ
```

SCHEMATIC DIAGRAM OF STREAM NETWORK

```
INPUT
 LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

  NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

  41          10
               V
               V
  51         R10
               .
               .
  57           .          20
               .           .
               .           .
  67         C20............
               .
               .
  70           .          40
               .           .
               .           .
  80           .           .          60
               .           .           .
               .           .           .
  90         60C........................
               V
               V
  93        SR60
               V
               V
 102         R60
               V
               V
 108        RR60
               .
               .
 114           .          80
               .           .
               .           .
 124         80C............
               V
               V
 127         R80
               .
               .
 133           .         100
               .           .
               .           .
 143        100C............
               V
               V
 146        R100
               .
               .
 152           .         120
               .           .
               .           .
 162        120C............
               V
               V
 165        R120
               .
               .
 171           .         140
               .           .
               .           .
 181           .           .        150
               .           .          V
               .           .          V
 191           .           .       R150
               .           .          .
               .           .          .
 197           .           .          .         160
               .           .          .           .
               .           .          .           .
 207           .           .          .           .         180
               .           .          .           .           .
               .           .          .           .           .
 217        180C.............................................
               .
               .
 220           .         350
               .           .
               .           .
 233           .           .-------->   SF350
 230           .       D350
               .          V
               .          V
 236           .       350R
               .           .
               .           .
 242           .           .        310
               .           .          .
               .           .          .
 252           .       C310............
               .          V
               .          V
 255           .       R310
               .           .
               .           .
 261           .           .        295
               .           .          .
               .           .          .
 271           .       295C............
               .          V
               .          V
 274           .       R295
               .           .
               .           .
 281           .           .        240
               .           .          .
               .           .          .
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291          .        240C............
             .          .
             .          .
298          .          .-------->   240S
294          .        D240
             .          .
             .          .
303          .          .          .<-------   240S
301          .          .      RT240
             .          .          V
             .          .          V
304          .          .      SR240
             .          .          .
             .          .          .
312          .        C240............
             .          V
             .          V
315          .        R240
             .          .
             .          .
322          .          .        210
             .          .          V
             .          .          V
332          .          .       R210
             .          .          .
             .          .          .
338          .          .          .        220
             .          .          .          .
             .          .          .          .
348          .        220C......................
             .          .
             .          .
355          .          .-------->   220S
351          .        D220
             .          .
             .          .
360          .          .          .<-------   220S
358          .          .      RT220
             .          .          V
             .          .          V
361          .          .      SR220
             .          .          .
             .          .          .
369          .        C220............
             .          V
             .          V
372          .        R220
             .          .
             .          .
379          .          .        190
             .          .          V
             .          .          V
389          .          .       R190
             .          .          .
             .          .          .
395          .          .          .        200
             .          .          .          .
             .          .          .          .
405          .        200C......................
             .          V
             .          V
408          .        R200
             .          .
             .          .
414       C180............
             V
             V
417      SR180
             V
             V
426       R180
             .
             .
432          .        260
             .          .
             .          .
442       260C............
             V
             V
445       R260
             .
             .
451          .        280
             .          .
             .          .
461       280C............
             V
             V
464       R280
             .
             .
470          .        300
             .          .
             .          .
480       300C............
             V
             V
483       R300
             V
             V
489      RR300
             .
             .
495          .        320
             .          .
             .          .
510          .          .-------->   BS320
505          .        D320
             .          .
             .          .
515          .          .          .<-------   BS320
513          .          .      RT320
             .          .          V
```

```
                 .          .          V
516              .          .      SR320
                 .          .          .
                 .          .          .
522          C320.......................
                 .
                 .
525              .        340
                 .          .
                 .          .
540              .          .-------->   BS340
535              .       D340
                 .          .
                 .          .
545              .          .          .<-------   BS340
543              .          .      RT340
                 .          .          V
                 .          .          V
546              .          .      SR340
                 .          .          .
                 .          .          .
552          C340.......................
                 .
                 .
557              .          .<-------   SF350
555              .      RT350
                 .          V
                 .          V
558              .      RR350
                 .          .
                 .          .
564              .          .        355
                 .          .          .
                 .          .          .
574              .       C355............
                 .          V
                 .          V
577              .       R355
                 .          .
                 .          .
583              .          .        370
                 .          .          V
                 .          .          V
593              .          .      R370
                 .          .          .
                 .          .          .
599              .          .          .        360
                 .          .          .          .
                 .          .          .          .
613              .          .          .          .-------->   BS360
609              .          .          .      D360
                 .          .          .          .
                 .          .          .          .
618              .          .          .          .          .<-------   BS360
616              .          .          .          .      RT360
                 .          .          .          .          V
                 .          .          .          .          V
619              .          .          .          .      SR360
                 .          .          .          .          .
                 .          .          .          .          .
625          360C...........................................
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                 .
628              .        395
                 .          V
                 .          V
638              .       R395
                 .          .
                 .          .
644              .          .        380
                 .          .          .
                 .          .          .
658              .          .          .-------->   BS380
654              .          .      D380
                 .          .          .
                 .          .          .
663              .          .          .          .<-------   BS380
661              .          .          .      RT380
                 .          .          .          V
                 .          .          .          V
664              .          .          .      SR380
                 .          .          .          .
                 .          .          .          .
670          380C...................................
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                 .
673              .        390
                 .          .
                 .          .
687              .          .-------->   BS390
683              .       D390
                 .          .
                 .          .
692              .          .          .<-------   BS390
690              .          .      RT390
                 .          .          V
                 .          .          V
693              .          .      SR390
                 .          .          .
                 .          .          .
699              .       390C............
                 .          V
                 .          V
702              .      RR390
                 .          .
                 .          .
708              .          .        400
                 .          .          .
                 .          .          .
722              .          .          .-------->   BS400
718              .          .      D400
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727          .          .          .          .<-------   BS400
725          .          .          .      RT400
             .          .          .          V
             .          .          .          V
728          .          .          .      SR400
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             .          .          .          .
734          .          .      C400............
             .          .          .
             .          .          .
737      400C........................
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             .
740          .       385
             .         .
             .         .
752          .         .------->  SF385
750          .      D385
             .         V
             .         V
755          .      385R
             .         .
             .         .
761          .         .       420
             .         .         .
             .         .         .
775          .         .         .-------->  BS420
771          .         .      D420
             .         .         .
             .         .         .
780          .         .         .          .<-------   BS420
778          .         .         .      RT420
             .         .         .          V
             .         .         .          V
781          .         .         .      SR420
             .         .         .          .
             .         .         .          .
787      420C...................................
             .
             .
790          .       440
             .         V
             .         V
800          .      R70
             .         .
             .         .
806          .         .       441
             .         .         .
             .         .         .
816          .      C108............
             .         .
             .         .
821          .         .------->  SPLIT
819          .      DIV4
             .         V
             .         V
824          .      R108
             .         .
             .         .
830          .         .       442
             .         .         .
             .         .         .
840          .       C67............
             .         .
             .         .
846          .         .------->  BASIN4
843          .      DIV6
             .         .
             .         .
851          .         .          .<-------  BASIN4
849          .         .     RTDIV6
             .         .         V
             .         .         V
852          .         .     RFDIV6
             .         .         .
             .         .         .
858          .     CDIV6............
             .         .
             .         .
861          .         .       443
             .         .         .
             .         .         .
874          .         .         .-------->  WSH66
871          .         .      DIV66
             .         .         V
             .         .         V
877          .         .      R113
             .         .         .
             .         .         .
883          .      C114............
             .         .
             .         .
886          .         .       444
             .         .         V
             .         .         V
896          .         .       R58
             .         .         .
             .         .         .
902          .         .         .        445
             .         .         .          .
             .         .         .          .
912          .         .      C107............
             .         .         V
             .         .         V
915          .         .      R107
             .         .         .
             .         .         .
923          .         .         .          .<-------   SPLIT
921          .         .         .      RTB2
             .         .         .         V
             .         .         .         V
924          .         .         .     RSPLIT
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930                                                446
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940                  C109.......................
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                        .
946                     .-------> WSH404
943                  DIV5
                        V
                        V
949                  R109
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955                     .        447
                        .         .
                        .         .
967                     .         .        .<------- WSH404
965                     .         .     RT404
                        .         .        V
                        .         .        V
968                     .         .     R404
                        .         .        .
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974                  C110.......................
                        V
                        V
977                  R110
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983            C115............
                  V
                  V
986            R115
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993                  448
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1003                    .        449
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1013                 C6364............
                        V
                        V
1016                 R6364
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1022                    .        450
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1032                    .         .        451
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1044                    .         .         .        .<-------  WSH66
1042                    .         .         .     RT66
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1045                    .         .         .        .        452
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1055                    .         .         .     C6465............
                        .         .         .        V
                        .         .         .        V
1058                    .         .         .     R6566
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1064                 C116.................................
                        V
                        V
1067                 BASIN5
                        V
                        V
1074                 R116
                        .
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1080                    .        453
                        .         .
                        .         .
1090                 C117............
                        .
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1093           C118............
                  V
                  V
1096           R118
                  .
                  .
1105              .-------> BASIN6
1102           DIV7
                  .
                  .
1110              .        .<-------- BASIN6
1108              .     RTDIV7
                        V
                        V
1111              .     RFDIV7
                        .
                        .
1117         CDIV7............
                  .
                  .
1120              .        454
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1130           C119............
                  V
                  V
1133           R454
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1139              .        415
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1151          .           .           .           .<-------   SF385
1149          .           .           .       RT385
              .           .           .           V
              .           .           .           V
1152          .           .           .       RR385
              .           .           .           .
              .           .           .           .
1158          .       415C.......................
              .          V
              .          V
1161          .       R415
              .           .
              .           .
1167          .           .        455
              .           .           .
              .           .           .
1182          .           .           .------->   BS455
1177          .           .       D455
              .           .           .
              .           .           .
1187          .           .           .           .<-------   BS455
1185          .           .           .       RT455
              .           .           .           V
              .           .           .           V
1188          .           .           .       SR455
              .           .           .           .
              .           .           .           .
1194          .           .       C455............
              .           .           .
              .           .           .
1197       455C.......................
              V
              V
1200      SR440
              V
              V
1209      RR455
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1215          .        456
              .           .
              .           .
1228          .           .------->  BASIN1
1225          .       DIV1
              .           .
              .           .
1234          .           .------->    WA30
1231          .       DIV2
              .          V
              .          V
1237          .       R456
              .           .
              .           .
1243          .           .        457
              .           .           .
              .           .           .
1253          .       C101............
              .           .
              .           .
1259          .           .------->  BASIN2
1256          .       DIV3
              .           .
              .           .
1264          .           .           .<-------  BASIN2
1262          .           .     RTDIV3
              .           .          V
              .           .          V
1265          .           .     RFDIV3
              .           .           .
              .           .           .
1271          .      CDIV3............
              .          V
              .          V
1274          .       R101
              .           .
              .           .
1280          .           .        458
              .           .           .
              .           .           .
1290          .       C103............
              .          V
              .          V
1293          .       R103
              .           .
              .           .
1301          .           .           .<-------    WA30
1299          .           .       RT30
              .           .          V
              .           .          V
1302          .           .        R30
              .           .           .
              .           .           .
1310          .           .           .           .<-------  BASIN1
1308          .           .           .       RTB1
              .           .           .          V
              .           .           .          V
1311          .           .           .         B1
              .           .           .          V
              .           .           .          V
1318          .           .           .        RB1
              .           .           .           .
              .           .           .           .
1324          .           .       CDIV............
              .           .           .
              .           .           .
1327          .           .           .        459
              .           .           .           .
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1337          .           .        C52............
              .           .          V
              .           .          V
1340          .           .        R52
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1346            .          .          .        460
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1356            .          .       C102...........
                .          .          V
                .          .          V
1359            .          .      BASIN3
                .          .          V
                .          .          V
1366            .          .         R3
                .          .          .
                .          .          .
1372            .          .          .        461
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1382            .          .       C104...........
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1385            .       C106...........
                .          V
                .          V
1388            .       R106
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                .          .
1394            .          .        462
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1404            .        C56...........
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                .          .
1407            .          .        480
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                .          .          .
1422            .          .          .-------->  BS480
1417            .          .       D480
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1427            .          .          .          .<-------  BS480
1425            .          .          .      RT480
                .          .          .          V
                .          .          .          V
1428            .          .          .      SR480
                .          .          .          .
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1434            .          .       C480...........
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                .          .          .
1437        480C........................
               V
               V
1440       RR480
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1446            .        500
                .          .
                .          .
1456        500C............
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(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

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

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	10	951.	12.27	114.	31.	15.	.70		
+	ROUTED TO	R10	826.	12.60	114.	31.	15.	.70		
+	HYDROGRAPH AT	20	959.	12.43	128.	32.	16.	1.12		
+	2 COMBINED AT	C20	1635.	12.53	240.	63.	30.	1.82		
+	HYDROGRAPH AT	40	2582.	12.30	252.	66.	32.	2.23		
+	HYDROGRAPH AT	60	1553.	12.40	228.	61.	29.	1.75		
+	3 COMBINED AT	60C	5014.	12.37	708.	188.	90.	5.80		
+	ROUTED TO	SR60	92.	14.47	92.	89.	70.	5.80		
+	ROUTED TO	R60	92.	14.53	92.	89.	70.	5.80		
+	ROUTED TO	RR60	92.	14.63	92.	89.	70.	5.80		
+	HYDROGRAPH AT	80	1868.	12.27	179.	46.	22.	1.48		
+	2 COMBINED AT	80C	1942.	12.27	266.	134.	92.	1.48		
+	ROUTED TO	R80	1919.	12.27	266.	134.	92.	1.48		
+	HYDROGRAPH AT	100	404.	12.20	58.	15.	7.	.48		
+	2 COMBINED AT	100C	2300.	12.27	321.	148.	99.	1.96		
	ROUTED TO	R100	2292.	12.30	321.	148.	99.	1.96		
+	HYDROGRAPH AT	120	3232.	12.27	326.	88.	42.	2.20		
+	2 COMBINED AT	120C	5469.	12.27	636.	229.	140.	4.16		
+	ROUTED TO	R120	5397.	12.30	636.	229.	140.	4.16		
+	HYDROGRAPH AT	140	632.	12.13	64.	17.	8.	.60		
+	HYDROGRAPH AT	150	135.	13.20	47.	13.	6.	.41		
+	ROUTED TO	R150	132.	13.67	47.	13.	6.	.41		
+	HYDROGRAPH AT	160	217.	12.40	35.	9.	4.	.37		
+	HYDROGRAPH AT	180	785.	12.37	90.	23.	11.	1.00		
+	5 COMBINED AT	180C	6707.	12.30	856.	286.	168.	6.54		
+	HYDROGRAPH AT	350	1192.	12.20	104.	27.	13.	.96		
+	DIVERSION TO	SF350	715.	12.20	63.	16.	8.	.96		
+	HYDROGRAPH AT	D350	477.	12.20	42.	11.	5.	.96		
+	ROUTED TO	350R	420.	12.43	42.	11.	5.	.96		
+	HYDROGRAPH AT	310	376.	12.33	49.	12.	6.	.56		
+	2 COMBINED AT	C310	760.	12.40	90.	23.	11.	.94		
	ROUTED TO	R310	699.	12.60	90.	23.	11.	.94		
	HYDROGRAPH AT	295	364.	12.30	40.	10.	5.	.38		
+	2 COMBINED AT	295C	878.	12.60	129.	33.	16.	1.32		
+	ROUTED TO	R295	862.	12.63	129.	33.	16.	1.32		

+	HYDROGRAPH AT	240	846.	12.33	107.	27.	13.	1.04
+	2 COMBINED AT	240C	1354.	12.60	233.	59.	29.	2.36
	DIVERSION TO	240S	754.	12.60	71.	18.	9.	2.36
	HYDROGRAPH AT	D240	600.	12.17	162.	42.	20.	2.36
+	HYDROGRAPH AT	RT240	754.	12.60	71.	18.	9.	2.36
+	ROUTED TO	SR240	146.	12.97	64.	18.	9.	2.36
+	2 COMBINED AT	C240	746.	12.97	224.	59.	29.	2.36
+	ROUTED TO	R240	744.	13.07	224.	59.	29.	2.36
+	HYDROGRAPH AT	210	873.	12.20	82.	22.	10.	.58
+	ROUTED TO	R210	803.	12.30	82.	22.	10.	.58
+	HYDROGRAPH AT	220	1057.	12.17	93.	23.	11.	.69
+	3 COMBINED AT	220C	2202.	12.23	392.	103.	49.	3.63
+	DIVERSION TO	220S	1602.	12.23	150.	38.	18.	3.63
+	HYDROGRAPH AT	D220	600.	11.97	242.	65.	31.	3.63
+	HYDROGRAPH AT	RT220	1602.	12.23	150.	38.	18.	3.63
+	ROUTED TO	SR220	338.	12.90	143.	38.	18.	3.63
+	2 COMBINED AT	C220	938.	12.90	383.	103.	49.	3.63
+	ROUTED TO	R220	937.	12.93	383.	103.	49.	3.63
	HYDROGRAPH AT	190	1403.	12.17	116.	31.	15.	.92
	ROUTED TO	R190	1272.	12.30	116.	31.	15.	.92
+	HYDROGRAPH AT	200	1399.	12.17	115.	30.	15.	.92
+	3 COMBINED AT	200C	3038.	12.23	602.	162.	78.	5.47
+	ROUTED TO	R200	3009.	12.27	602.	162.	78.	5.47
+	2 COMBINED AT	C180	9528.	12.30	1431.	437.	242.	12.00
+	ROUTED TO	SR180	142.	19.47	142.	142.	116.	12.00
+	ROUTED TO	R180	142.	19.53	142.	142.	116.	12.00
+	HYDROGRAPH AT	260	418.	12.10	43.	12.	6.	.27
+	2 COMBINED AT	260C	528.	12.13	179.	153.	123.	.27
+	ROUTED TO	R260	510.	12.20	179.	153.	123.	.27
+	HYDROGRAPH AT	280	478.	12.10	42.	12.	6.	.30
+	2 COMBINED AT	280C	942.	12.13	219.	163.	128.	.57
+	ROUTED TO	R280	906.	12.20	219.	163.	127.	.57
+	HYDROGRAPH AT	300	835.	12.13	77.	21.	10.	.68
+	2 COMBINED AT	300C	1692.	12.17	292.	181.	137.	1.25
	ROUTED TO	R300	1647.	12.23	291.	181.	137.	1.25
	ROUTED TO	RR300	1583.	12.27	291.	181.	136.	1.25
+	HYDROGRAPH AT	320	1040.	12.17	111.	31.	15.	.87
+	DIVERSION TO	BS320	409.	11.93	21.	6.	3.	.87

+	HYDROGRAPH AT	D320	1040.	12.17	96.	25.	12.	.87
+	HYDROGRAPH AT	RT320	409.	11.93	21.	6.	3.	.87
	ROUTED TO	SR320	4.	4.17	4.	4.	3.	.87
+	3 COMBINED AT	C320	2461.	12.23	389.	210.	151.	2.12
+	HYDROGRAPH AT	340	1471.	12.17	186.	55.	26.	1.45
+	DIVERSION TO	BS340	1471.	12.17	104.	28.	14.	1.45
+	HYDROGRAPH AT	D340	1199.	12.33	97.	27.	13.	1.45
+	HYDROGRAPH AT	RT340	1471.	12.17	104.	28.	14.	1.45
+	ROUTED TO	SR340	19.	9.00	19.	19.	14.	1.45
+	3 COMBINED AT	C340	3428.	12.33	500.	254.	176.	3.57
+	HYDROGRAPH AT	RT350	715.	12.20	63.	16.	8.	.96
+	ROUTED TO	RR350	659.	12.37	63.	16.	8.	.96
+	HYDROGRAPH AT	355	510.	12.33	70.	18.	9.	.67
+	2 COMBINED AT	C355	1154.	12.33	132.	34.	17.	1.24
+	ROUTED TO	R355	1033.	12.60	131.	34.	17.	1.24
+	HYDROGRAPH AT	370	588.	12.30	79.	21.	10.	.67
+	ROUTED TO	R370	524.	12.63	79.	21.	10.	.67
+	HYDROGRAPH AT	360	504.	12.23	84.	25.	12.	.67
	DIVERSION TO	BS360	504.	12.23	53.	14.	7.	.67
	HYDROGRAPH AT	D360	306.	12.63	38.	11.	5.	.67
+	HYDROGRAPH AT	RT360	504.	12.23	53.	14.	7.	.67
+	ROUTED TO	SR360	10.	9.83	10.	10.	7.	.67
+	5 COMBINED AT	360C	3532.	12.33	744.	325.	214.	6.14
+	HYDROGRAPH AT	395	182.	12.23	25.	7.	3.	.20
+	ROUTED TO	R395	157.	12.67	25.	7.	3.	.20
+	HYDROGRAPH AT	380	666.	12.27	98.	26.	13.	.97
+	DIVERSION TO	BS380	666.	12.27	56.	14.	7.	.97
+	HYDROGRAPH AT	D380	472.	12.57	46.	12.	6.	.97
+	HYDROGRAPH AT	RT380	666.	12.27	56.	14.	7.	.97
+	ROUTED TO	SR380	10.	11.33	10.	10.	7.	.97
+	4 COMBINED AT	380C	3912.	12.60	818.	352.	229.	7.31
+	HYDROGRAPH AT	390	463.	12.03	33.	10.	5.	.24
+	DIVERSION TO	BS390	95.	11.73	6.	2.	1.	.24
+	HYDROGRAPH AT	D390	463.	12.03	30.	8.	4.	.24
	HYDROGRAPH AT	RT390	95.	11.73	6.	2.	1.	.24
	ROUTED TO	SR390	1.	.90	1.	1.	1.	.24
+	2 COMBINED AT	390C	464.	12.03	31.	9.	5.	.24
+	ROUTED TO	RR390	367.	12.30	31.	9.	5.	.24

+	HYDROGRAPH AT	400	351.	12.23	47.	13.	6.	.62
+	DIVERSION TO	BS400	262.	12.10	10.	3.	1.	.62
	HYDROGRAPH AT	D400	351.	12.23	39.	10.	5.	.62
	HYDROGRAPH AT	RT400	262.	12.10	10.	3.	1.	.62
+	ROUTED TO	SR400	2.	8.70	2.	2.	1.	.62
+	2 COMBINED AT	C400	353.	12.23	41.	12.	6.	.62
+	3 COMBINED AT	400C	4238.	12.57	884.	371.	239.	8.17
+	HYDROGRAPH AT	385	782.	12.23	87.	24.	12.	.65
+	DIVERSION TO	SF385	313.	12.23	35.	10.	5.	.65
+	HYDROGRAPH AT	D385	469.	12.23	52.	14.	7.	.65
+	ROUTED TO	385R	410.	12.50	52.	14.	7.	.65
+	HYDROGRAPH AT	420	752.	12.20	92.	26.	12.	.85
+	DIVERSION TO	BS420	269.	11.97	15.	4.	2.	.85
+	HYDROGRAPH AT	D420	752.	12.20	83.	22.	10.	.85
+	HYDROGRAPH AT	RT420	269.	11.97	15.	4.	2.	.85
+	ROUTED TO	SR420	13.	11.03	12.	4.	2.	.85
+	4 COMBINED AT	420C	4903.	12.57	1012.	405.	256.	10.77
+	HYDROGRAPH AT	440	180.	12.03	12.	3.	2.	.08
	ROUTED TO	R70	176.	12.07	12.	3.	2.	.08
	HYDROGRAPH AT	441	16.	12.03	1.	0.	0.	.01
+	2 COMBINED AT	C108	191.	12.07	14.	4.	2.	.09
+	DIVERSION TO	SPLIT	96.	12.07	7.	2.	1.	.09
+	HYDROGRAPH AT	DIV4	96.	12.07	7.	2.	1.	.09
+	ROUTED TO	R108	88.	12.13	7.	2.	1.	.09
+	HYDROGRAPH AT	442	102.	12.10	9.	2.	1.	.10
+	2 COMBINED AT	C67	187.	12.10	15.	4.	2.	.19
+	DIVERSION TO	BASIN4	115.	12.10	6.	1.	1.	.19
+	HYDROGRAPH AT	DIV6	72.	12.10	10.	3.	1.	.19
+	HYDROGRAPH AT	RTDIV6	115.	12.10	6.	1.	1.	.19
+	ROUTED TO	RFDIV6	1.	11.90	1.	1.	1.	.19
+	2 COMBINED AT	CDIV6	74.	12.10	10.	4.	2.	.19
+	HYDROGRAPH AT	443	148.	12.07	14.	4.	2.	.08
+	DIVERSION TO	WSH66	78.	11.90	12.	3.	2.	.08
+	HYDROGRAPH AT	DIV66	70.	12.07	3.	1.	0.	.08
	ROUTED TO	R113	69.	12.07	3.	1.	0.	.08
	2 COMBINED AT	C114	140.	12.07	13.	4.	2.	.27
+	HYDROGRAPH AT	444	82.	12.03	5.	1.	1.	.04
+	ROUTED TO	R58	75.	12.07	5.	1.	1.	.04

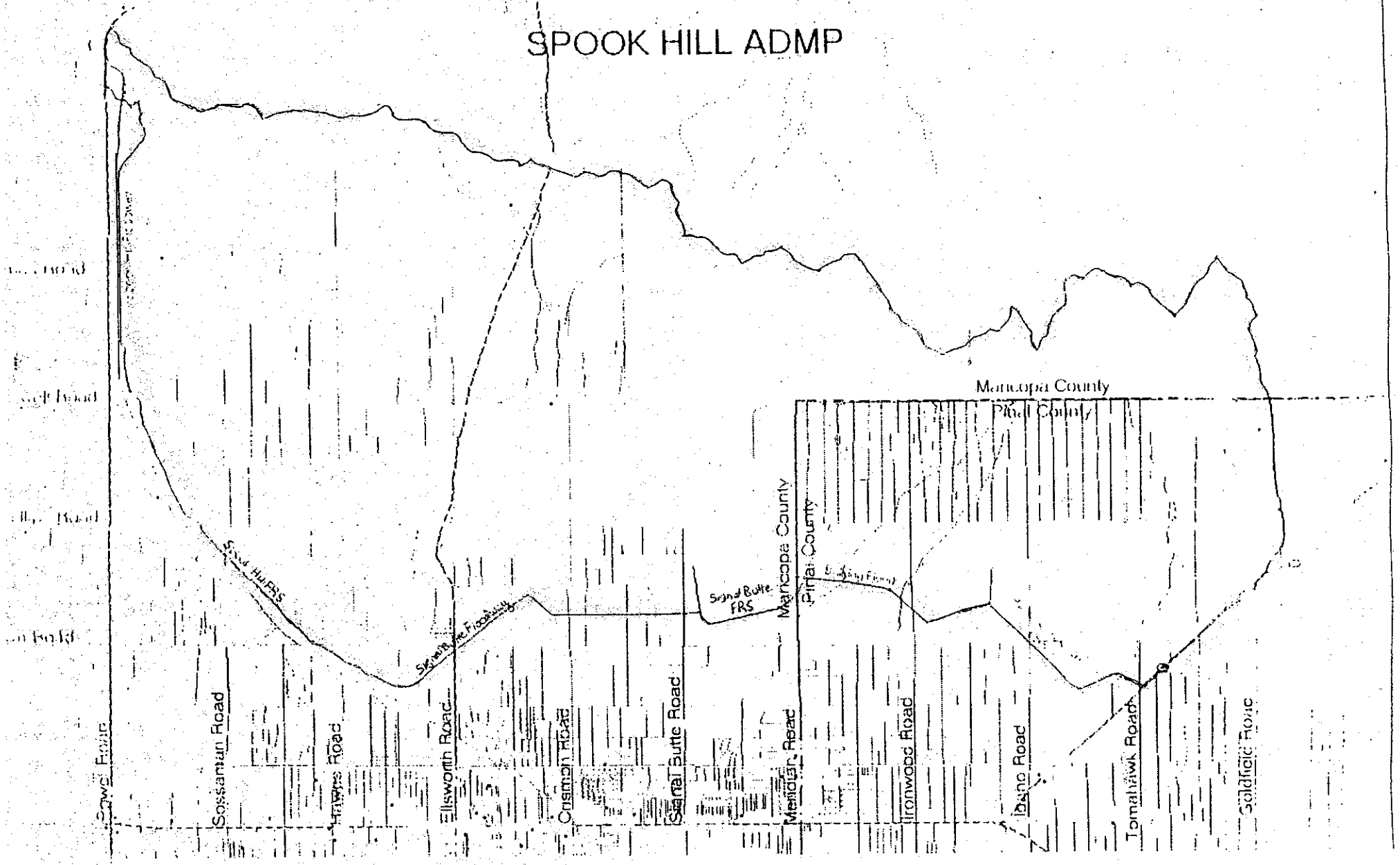
+	HYDROGRAPH AT	445	296.	12.03	18.	5.	2.	.19
+	2 COMBINED AT	C107	365.	12.03	22.	6.	3.	.23
+	ROUTED TO	R107	365.	12.07	22.	6.	3.	.23
+	HYDROGRAPH AT	RTB2	96.	12.07	7.	2.	1.	.09
+	ROUTED TO	RSPLIT	95.	12.07	7.	2.	1.	.09
+	HYDROGRAPH AT	446	65.	12.03	6.	2.	1.	.04
+	3 COMBINED AT	C109	520.	12.07	35.	9.	4.	.27
+	DIVERSION TO	WSH404	35.	11.73	8.	2.	1.	.27
+	HYDROGRAPH AT	DIV5	485.	12.07	27.	7.	3.	.27
+	ROUTED TO	R109	469.	12.10	27.	7.	3.	.27
+	HYDROGRAPH AT	447	138.	12.07	12.	4.	2.	.09
+	HYDROGRAPH AT	RT404	35.	11.73	8.	2.	1.	.27
+	ROUTED TO	R404	35.	11.90	8.	2.	1.	.27
+	3 COMBINED AT	C110	635.	12.07	46.	13.	6.	.36
+	ROUTED TO	R110	632.	12.10	46.	13.	6.	.36
+	2 COMBINED AT	C115	764.	12.10	59.	17.	8.	.63
+	ROUTED TO	R115	767.	12.10	59.	17.	8.	.63
+	HYDROGRAPH AT	448	88.	12.03	6.	2.	1.	.05
+	HYDROGRAPH AT	449	80.	12.03	5.	1.	1.	.05
+	2 COMBINED AT	C6364	166.	12.03	11.	3.	1.	.09
+	ROUTED TO	R6364	121.	12.17	11.	3.	1.	.09
+	HYDROGRAPH AT	450	61.	12.20	6.	2.	1.	.07
+	HYDROGRAPH AT	451	18.	12.17	2.	1.	0.	.03
+	HYDROGRAPH AT	RT66	78.	11.90	12.	3.	2.	.08
+	HYDROGRAPH AT	452	62.	12.03	4.	1.	1.	.04
+	2 COMBINED AT	C6465	140.	12.03	16.	4.	2.	.04
+	ROUTED TO	R6566	135.	12.10	16.	4.	2.	.04
+	4 COMBINED AT	C116	325.	12.17	35.	9.	4.	.23
+	ROUTED TO	BASIN5	149.	12.47	35.	9.	4.	.23
+	ROUTED TO	R116	148.	12.53	35.	9.	4.	.23
+	HYDROGRAPH AT	453	62.	12.10	7.	2.	1.	.06
+	2 COMBINED AT	C117	167.	12.50	41.	11.	5.	.29
+	2 COMBINED AT	C118	854.	12.10	99.	28.	14.	.92
+	ROUTED TO	R118	844.	12.10	99.	28.	14.	.92
+	DIVERSION TO	BASIN6	244.	12.10	10.	2.	1.	.92
+	HYDROGRAPH AT	DIV7	600.	12.10	89.	25.	13.	.92
+	HYDROGRAPH AT	RTDIV7	244.	12.10	10.	2.	1.	.92
+	ROUTED TO	RFDIV7	1.	11.97	1.	1.	1.	.92

+	2 COMBINED AT	CDIV7	601.	12.10	90.	26.	13.	.92
+	HYDROGRAPH AT	454	157.	12.17	21.	6.	3.	.18
+	2 COMBINED AT	C119	749.	12.13	110.	32.	16.	1.10
+	ROUTED TO	R454	682.	12.40	110.	32.	16.	1.10
+	HYDROGRAPH AT	415	412.	12.17	55.	16.	7.	.45
+	HYDROGRAPH AT	RT385	313.	12.23	35.	10.	5.	.65
+	ROUTED TO	RR385	285.	12.40	35.	10.	5.	.65
+	3 COMBINED AT	415C	1253.	12.37	196.	56.	28.	1.55
+	ROUTED TO	R415	1225.	12.43	196.	56.	28.	1.55
+	HYDROGRAPH AT	455	1346.	12.13	142.	43.	21.	1.11
+	DIVERSION TO	BS455	1346.	12.13	137.	37.	18.	1.11
+	HYDROGRAPH AT	D455	55.	12.77	16.	6.	3.	1.11
+	HYDROGRAPH AT	RT455	1346.	12.13	137.	37.	18.	1.11
+	ROUTED TO	SR455	25.	10.47	25.	25.	18.	1.11
+	2 COMBINED AT	C455	80.	12.77	41.	31.	21.	1.11
+	3 COMBINED AT	455C	5913.	12.53	1216.	481.	301.	13.43
+	ROUTED TO	SR440	794.	13.83	777.	481.	300.	13.43
+	ROUTED TO	RR455	793.	14.13	777.	481.	298.	13.43
+	HYDROGRAPH AT	456	468.	12.07	35.	10.	5.	.26
+	DIVERSION TO	BASIN1	184.	12.07	8.	2.	1.	.26
+	HYDROGRAPH AT	DIV1	284.	12.07	27.	8.	4.	.26
+	DIVERSION TO	WA30	58.	12.07	10.	3.	2.	.26
+	HYDROGRAPH AT	DIV2	226.	12.07	18.	4.	2.	.26
+	ROUTED TO	R456	213.	12.13	18.	4.	2.	.26
+	HYDROGRAPH AT	457	264.	12.07	20.	5.	3.	.19
+	2 COMBINED AT	C101	462.	12.10	38.	10.	5.	.45
+	DIVERSION TO	BASIN2	165.	12.10	7.	2.	1.	.45
+	HYDROGRAPH AT	DIV3	297.	12.10	30.	8.	4.	.45
+	HYDROGRAPH AT	RTDIV3	165.	12.10	7.	2.	1.	.45
+	ROUTED TO	RFDIV3	2.	11.90	2.	2.	1.	.45
+	2 COMBINED AT	CDIV3	299.	12.10	32.	9.	5.	.45
+	ROUTED TO	R101	297.	12.10	32.	9.	5.	.45
+	HYDROGRAPH AT	458	356.	12.03	25.	7.	3.	.19
+	2 COMBINED AT	C103	635.	12.07	56.	16.	8.	.64
	ROUTED TO	R103	630.	12.07	56.	16.	8.	.64
	HYDROGRAPH AT	RT30	58.	12.07	10.	3.	2.	.26
+	ROUTED TO	R30	57.	12.10	10.	3.	2.	.26
+	HYDROGRAPH AT	RTB1	184.	12.07	8.	2.	1.	.26

+	ROUTED TO	B1	37.	12.23	8.	2.	1.	.26
+	ROUTED TO	RB1	37.	12.30	8.	2.	1.	.26
+	2 COMBINED AT	CDIV	86.	12.20	17.	5.	3.	.12
+	HYDROGRAPH AT	459	44.	12.03	3.	1.	0.	.03
+	2 COMBINED AT	C52	113.	12.10	20.	6.	3.	.15
+	ROUTED TO	R52	112.	12.17	20.	6.	3.	.15
+	HYDROGRAPH AT	460	214.	12.07	19.	6.	3.	.14
+	2 COMBINED AT	C102	313.	12.07	39.	12.	6.	.29
+	ROUTED TO	BASIN3	71.	12.63	39.	12.	6.	.29
+	ROUTED TO	R3	71.	12.77	39.	12.	6.	.29
+	HYDROGRAPH AT	461	161.	12.10	17.	5.	2.	.12
+	2 COMBINED AT	C104	213.	12.10	55.	17.	8.	.41
+	2 COMBINED AT	C106	835.	12.07	110.	32.	16.	1.05
+	ROUTED TO	R106	797.	12.13	110.	32.	16.	1.05
+	HYDROGRAPH AT	462	538.	12.07	40.	11.	5.	.30
+	2 COMBINED AT	C56	1254.	12.10	149.	42.	21.	1.35
+	HYDROGRAPH AT	480	1050.	12.10	96.	29.	14.	.73
+	DIVERSION TO	BS480	455.	11.90	27.	8.	4.	.73
+	HYDROGRAPH AT	D480	1050.	12.10	78.	21.	10.	.73
+	HYDROGRAPH AT	RT480	455.	11.90	27.	8.	4.	.73
+	ROUTED TO	SR480	6.	3.90	6.	6.	4.	.73
+	2 COMBINED AT	C480	1056.	12.10	84.	27.	14.	.73
+	3 COMBINED AT	480C	2522.	12.10	957.	563.	341.	2.09
+	ROUTED TO	RR480	2360.	12.13	955.	563.	341.	2.09
+	HYDROGRAPH AT	500	1073.	12.27	122.	33.	16.	.93
+	2 COMBINED AT	500C	3250.	12.17	1066.	591.	355.	2.84

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

SPOOK HILL ADMP



HEC-1 Existing condition 100-Year, 24-Hour Storm. Pass Mountain Diversion with new boundaries for Sub-Basins 350 & 355. Levee extended North-West creating Sub-Basin 295 from 300. Offline basins added to Sub-Basins 240 & 220.

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1*************************************
*                                   *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *
*              JUN  1998            *
*            VERSION 4.1            *
*                                   *
*  RUN DATE   02MAY00  TIME  11:29:59  *
*                                   *
*************************************
```

```
*************************************
*                                   *
*    U.S. ARMY CORPS OF ENGINEERS   *
*    HYDROLOGIC ENGINEERING CENTER  *
*          609 SECOND STREET        *
*       DAVIS, CALIFORNIA 95616     *
*           (916) 756-1104          *
*                                   *
*************************************
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X     X  XXXXXXX   XXXXX          X
X     X  X        X     X        XX
X     X  X        X               X
XXXXXXX  XXXX     X        XXXXX  X
X     X  X        X               X
X     X  X        X     X         X
X     X  XXXXXXX   XXXXX         XXX
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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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1                                    HEC-1 INPUT                                                    PAGE  1

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

   1          ID   EXISTING LAND USE CALCULATIONS WERE BASED ON 1 YR. FROM 11/5/99
   2          ID   FOR LAS SENDAS       AND LANDISCOR JAN.1999 AERIAL PHOTOGRAPHS
   3          ID
   4          ID   ALL DAMS WERE ANALYZED WITH NO STORAGE BELOW PRINCIPLE SPILLWAY ELEVATIONS
   5          ID
   6          ID   A CONSERVATIVE ESTIMATE WAS USED FOR THE LOCATION OF THE CENTROID FOR
   7          ID   PRECIPITATION VALUES
   8          ID
   9          ID   ALL CHANNEL ROUTING INFORMATION WAS OBTAINED FROM MCFCD SPOOK HILL   SIGNAL
  10          ID   BUTTE        AND BULLDOG FLOODWAY PLANS
  11          ID
  12          ID
  13          ID   PASS MOUNTAIN DIVERSION ALTERNATIVE WITH REDIRECTION OF FLOW FROM NEW
  14          ID   BASIN BOUNDARY FOR SUB-BASINS 350 & 355 AND ADDITIONAL LEVEE INTO
  15          ID   SUB-BASINS 300 & 320.  Offline basins added to Sub-Basins 220 & 240.
  16          ID   ANALYSIS PERFORMED BY WOOD/PATEL; 05/01/00 BY: MW;  FILE S24CE6.DAT
  17          ID
  18          ID   DDM MCUHP1 SPOOK HILL AMDP - EXISTING CONDITIONS MODEL - 100YR, 24HR STORM
              *DIAGRAM
  19          IT       2                    1500
  20          IO       3
  21          IN      15
  22          JD    3.81    0.01
  23          PC    .000    .002    .005    .008    .011    .014    .017    .020    .023    .026
  24          PC    .029    .032    .035    .038    .041    .044    .048    .052    .056    .060
  25          PC    .064    .068    .072    .076    .080    .085    .090    .095    .100    .105
  26          PC    .110    .115    .120    .126    .133    .140    .147    .155    .163    .172
  27          PC    .181    .191    .203    .218    .236    .257    .283    .387    .663    .707
  28          PC    .735    .758    .776    .791    .804    .815    .825    .834    .842    .849
  29          PC    .856    .863    .869    .875    .881    .887    .893    .898    .903    .908
  30          PC    .913    .918    .922    .926    .930    .934    .938    .942    .946    .950
  31          PC    .953    .956    .959    .962    .965    .968    .971    .974    .977    .980
  32          PC    .983    .986    .989    .992    .995    .998   1.000
  33          JD    3.58   10.00
  34          JD    3.43   30.00
  35          JD    3.28   60.00
  36          JD    3.22   90.00
  37          JD    3.18  120.00
  38          JD    3.14  150.00
  39          JD    3.05  300.00
  40          JD    2.97  500.00
              * DDM   ***** Updated *****

  41          KK      10
  42          KM   SUB-BASIN 10
  43          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
  44          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
  45          KM     L = 2.00  Kb = .044  Adj. Slope =  165.0
  46          BA    .702
  47          LG    .350    .320   7.600    .090  15.000
  48          UC    .421    .302
  49          UA       0       3       5       8      12      20      43      75      90      96
  50          UA     100
              * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                                    PAGE  2

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

  51          KK     R10
  52          KM   ROUTING OF FLOW FROM SUB-BASIN 10 TO SUB-BASIN 20
  53          RS      10    FLOW      -1
  54          RC    .045    .045    .045   13200    .017
  55          RX       0       1       2      14      34      46      47      48
  56          RY       4       4       4       0       0       4       4       4
              * DDM   ***** Updated *****

  57          KK      20
  58          KM   SUB-BASIN 20
  59          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
  60          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .993
  61          KM     L = 2.50  Kb = .041  Adj. Slope =   88.0
  62          BA   1.120
  63          LG    .350    .390   5.800    .190   1.000
  64          UC    .658    .454
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 65          UA       0       3       5       8      12      20      43      75      90      96
 66          UA     100
             * DDM   ***** Preserved *****

 67          KK     C20
 68          KM   HYDROGRAPH COMBINATION OF SUB-BASINS 10 AND 20
 69          HC       2
             * DDM   ***** Updated *****

 70          KK      40
 71          KM   SUB-BASIN 40
 72          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 73          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .987
 74          KM     L = 3.08  Kb = .036  Adj. Slope =  189.0
 75          BA   2.233
 76          LG    .340    .340   4.900    .280   5.000
 77          UC    .496    .264
 78          UA       0       3       5       8      12      20      43      75      90      96
 79          UA     100
             * DDM   ***** Updated *****

 80          KK      60
 81          KM   SUB-BASIN 60
 82          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 83          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .990
 84          KM     L = 4.19  Kb = .038  Adj. Slope =  209.6
 85          BA   1.746
 86          LG    .330    .350   5.800    .190   9.000
 87          UC    .596    .477
 88          UA       0       3       5       8      12      20      43      75      90      96
 89          UA     100
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE  3

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

 90          KK     60C
 91          KM   HYDROGRAPH COMBINATION FOR APACHE JUNCTION FRS
             *      1       2
 92          HC       3
             * DDM   ***** Preserved *****

 93          KK    SR60
 94          KM   APACHE JUNCTION FRS AS-BUILT PLANS 12/19/88
 95          KM   OUTLET PIPE=30"RCP; L=136.6'; INLET INV.=1783.5; OUTLET INV.=1783
 96          KM   EMERGENCY SPILLWAY ELEV.=1799.77'; PRINCIPLE SPILLWAY ELEV.=1793.5'
 97          KM   STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 100 ACRE-FEET
 98          RS       1    STOR       0
 99          SV       0       1     100     200     300     400
100          SQ       0      71      81      87    91.5      94
101          SE    83.5    93.5      96    97.7      99   99.77
             * DDM   ***** Preserved *****

102          KK     R60
103          KM        ROUTE FLOW THROUGH BULLDOG FLOODWAY FROM APACHE JUNCTION FRS
104          RS       2    FLOW      -1
105          RC    .016    .016    .016    2850    .012
106          RX       0       1       2     2.1     5.6     5.7       6       7
107          RY     3.5     3.5     3.5       0       0     3.5     3.5     3.5
             * DDM   ***** Preserved *****

108          KK    RR60
109          KM   ROUTE FLOW FROM BULLDOG FLOODWAY TO SUB-BASIN 80
110          RS       3    FLOW      -1
111          RC    .016    .016    .016    3500    .005
112          RX       0       1       2     2.1     7.1     7.2       8       9
113          RY     3.5     3.5     3.5       0       0     3.5     3.5     3.5
             * DDM   ***** Updated *****

114          KK      80
115          KM   SUB-BASIN 80
116          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
117          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
118          KM     L = 2.69  Kb = .039  Adj. Slope =  229.8
119          BA   1.475
120          LG    .330    .330   5.600    .210   4.000
121          UC    .433    .259
122          UA       0       3       5       8      12      20      43      75      90      96
123          UA     100
             * DDM   ***** Preserved *****

124          KK     80C
125          KM   HYDROGRAPH COMBINATION FOR FLOW FROM APACHE JUNCTION FRS & SUB-BASIN 80
126          HC       2   1.475
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE  4

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

127          KK     R80
128          KM   ROUTE FLOW FROM SUB-BASIN 80 TO SUB-BASIN 100
129          RS       1    FLOW      -1
130          RC    .025    .016    .025    1200    .003
131          RX       0       2       6     6.1    41.1    41.2    56.2    58.2
132          RY     5.5     4.5     4.5       0       0     4.5     4.5     5.5
             * DDM   ***** Updated *****

133          KK     100
134          KM   SUB-BASIN 100
135          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
136          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
137          KM     L = 1.94  Kb = .046  Adj. Slope =  108.0
138          BA    .484
139          LG    .320    .290   5.100    .260   3.000
140          UC    .533    .473
141          UA       0       5      16      30      65      77      84      90      94      97
142          UA     100
             * DDM   ***** Preserved *****

143          KK    100C
144          KM   HYDROGRAPH COMBINATION FOR FLOW FROM SUB-BASIN 80 & 100
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145          HC       2
             * DDM   ***** Preserved *****

146          KK    R100
147          KM   ROUTE FLOW FROM SUB-BASIN 100 TO SUB-BASIN 120
148          RS       1    FLOW      -1
149          RC    .016    .016    .016     940    .005
150          RX       0       1       2     2.1    52.1    52.2      53      54
151          RY     4.5     4.5     4.5       0       0     4.5     4.5     4.5
             * DDM   ***** Updated *****

152          KK     120
153          KM   SUB-BASIN 120
154          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
155          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .987
156          KM     L = 3.07  Kb = .037  Adj. Slope =  239.0
157          BA   2.202
158          LG    .330    .280   6.800    .130  11.000
159          UC    .429    .226
160          UA       0       3       5       8      12      20      43      75      90      96
161          UA     100
             * DDM   ***** Preserved *****

162          KK    120C
163          KM   HYDROGRAPH COMBINATION FOR FLOW FROM SUB-BASIN 100 & 120
164          HC       2
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE  5

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

165          KK    R120
166          KM   ROUTE FLOW FROM SUB-BASIN 120 TO SIGNAL BUTTE FRS
167          RS       1    FLOW      -1
168          RC    .025    .016    .025    2100    .005
169          RX       0       6      10    10.1    60.1    60.2    74.2    80.2
170          RY       8       5       5       0       0       5       5       8
             * DDM   ***** Updated *****

171          KK     140
172          KM   SUB-BASIN 140
173          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
174          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
175          KM     L = 1.61  Kb = .044  Adj. Slope =  149.0
176          BA    .598
177          LG    .310    .280   4.200    .440   5.000
178          UC    .421    .278
179          UA       0       5      16      30      65      77      84      90      94      97
180          UA     100
             * DDM   ***** Updated *****

181          KK     150
182          KM   SUB-BASIN 150
183          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
184          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
185          KM     L = 1.50  Kb = .047  Adj. Slope =  315.0
186          BA    .408
187          LG    .350    .360   5.100    .260   7.000
188          UC   1.579   1.417
189          UA       0       3       5       8      12      20      43      75      90      96
190          UA     100
             * DDM   ***** Preserved *****

191          KK    R150
192          KM   ROUTING OF FLOW FROM SUB-BASIN 150 THROUGH 160
193          RS      14    FLOW      -1
194          RC    .045    .045    .045   10895    .019
195          RX       0       1       2      14      34      46      47      48
196          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

197          KK     160
198          KM   SUB-BASIN 160
199          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
200          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
201          KM     L = 2.10  Kb = .047  Adj. Slope =  129.0
202          BA    .369
203          LG    .340    .330   4.150    .440   1.000
204          UC    .587    .655
205          UA       0       3       5       8      12      20      43      75      90      96
206          UA     100
             * DDM   ***** Updated *****
1                                        HEC-1 INPUT                                          PAGE  6

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

207          KK     180
208          KM   SUB-BASIN 180
209          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
210          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
211          KM     L = 2.42  Kb = .041  Adj. Slope =  140.0
212          BA   1.000
213          LG    .350    .350   4.150    .430    .000
214          UC    .571    .403
215          UA       0       3       5       8      12      20      43      75      90      96
216          UA     100
             * DDM   ***** Preserved *****

217          KK    180C
218          KM   HYDROGRAPH COMBINATION FOR SIGNAL BUTTE FRS
219          HC       5

220          KK     350
221          KM   SUB-BASIN 350
222          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
223          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
224          KM     L = 2.22  Kb = .042  Adj. Slope =  311.0
225          BA    .935
226          LG    .350    .350   4.600    .330   5.000
227          UC    .367    .239
228          UA       0       3       5       8      12      20      43      75      90      96
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229          UA     100
             * DDM   ***** Preserved *****

230          KK    350R
231          KM   ROUTING OF FLOW FROM SUB-BASIN 350 TO 310
232          RS       5    FLOW      -1
233          RC    .045    .045    .045    5379    .024
234          RX       0       1       2      32     102     132     133     134
235          RY       2       2       2       0       0       2       2       2
             * DDM   ***** Updated *****

236          KK     310
237          KM   SUB-BASIN 310
238          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
239          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
240          KM     L = 2.70  Kb = .045  Adj. Slope =  283.5
241          BA    .555
242          LG    .350    .350   3.910    .480    .000
243          UC    .483    .511
244          UA       0       3       5       8      12      20      43      75      90      96
245          UA     100
             * DDM   ***** Preserved *****

246          KK    C310
247          KM   HYDROGRAPH COMBINATION OF SUB-BASINS 350 & 310
248          HC       2
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE  7

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

249          KK    R310
250          KM   ROUTING OF FLOW FROM SUB-BASIN 310 TO 320
251          RS       5    FLOW      -1
252          RC    .045    .045    .045    4711    .015
253          RX       0       1       2      32     102     132     133     134
254          RY     2.5     2.5     2.5       0       0     2.5     2.5     2.5
             * DDM   ***** Updated *****

255          KK     295
256          KM   SUB-BASIN 295
257          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
258          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
259          KM     L = 1.60  Kb = .047  Adj. Slope =  131.0
260          BA    .380
261          LG    .350    .350   4.900    .280    .000
262          UC    .450    .386
263          UA       0       3       5       8      12      20      43      75      90      96
264          UA     100

265          KK    295C
266          KM   HYDROGRAPH COMBINATION OF SUB-BASINS 310 & 295
267          HC       2
             * DDM   ***** Preserved *****

268          KK    R295
269          KM   ROUTE FLOW FROM SUB-BASIN 295 TO SUB-BASIN 240
270          KM   ADDITIONAL LEVEE ADDED TO PASS MOUNTAIN DIVERSION
271          RS       2    FLOW      -1
272          RC    .035    .025    .035    1600    .005
273          RX       0      20      40      65      77     147     387     388
274          RY       8       8       2       0       0       2       8       8
             * DDM   ***** Updated *****

275          KK     240
276          KM   SUB-BASIN 240
277          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
278          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
279          KM     L = 3.50  Kb = .041  Adj. Slope =  298.6
280          BA   1.036
281          LG    .350    .350   4.600    .330   2.000
282          UC    .500    .458
283          UA       0       3       5       8      12      20      43      75      90      96
284          UA     100
             * DDM   ***** Preserved *****

285          KK    240C
286          KM   HYDROGRAPH COMBINATION OF SUB-BASINS 295 & 240
287          HC       2
1                                    HEC-1 INPUT                                          PAGE  8

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

288          KK    D240
289          KM   DIVERT FLOW INTO OFFLINE BASIN
290          KM
291          KO       1
292          DT   240S
293          DI       0     600    5000
294          DQ       0       0    4400
             * DDM   ***** Preserved *****

295          KK   RT240S
296          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
297          DR   240S
             * DDM   ***** Preserved *****

298          KK   SR240S
299          KM   RETRIEVE FLOW INTO BASIN AND BLEED OFF WITHIN 36 HOURS
300          KM
301          KO       1       2
302          RS       1    STOR       0
303          SV       0      50
304          SE       0      10
305          SQ       0     500
             * DDM   ***** Preserved *****

306          KK    C240
307          KM   HYDROGRAPH COMBINATION OF DIVERTED FLOW
308          HC       2
             * DDM   ***** Preserved *****
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309          KK    R240
310          KM   ROUTE FLOW FROM SUB-BASIN 240 TO SUB-BASIN 220
311          KM   PASS MOUNTAIN DIVERSION
312          RS       2    FLOW      -1
313          RC    .035    .025    .035    2100    .005
314          RX       0      15      30      60      88     558     563     568
315          RY      10      10      10       0       0      10      10      10
             * DDM   ***** Updated *****

316          KK     210
317          KM   SUB-BASIN 210
318          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
319          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
320          KM     L = 1.84  Kb = .045  Adj. Slope =  315.0
321          BA    .583
322          LG    .350    .350   7.000    .120   7.000
323          UC    .321    .232
324          UA       0       3       5       8      12      20      43      75      90      96
325          UA     100
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE  9

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

326          KK    R210
327          KM   ROUTING OF FLOW FROM SUB-BASIN 210 TO SUB-BASIN 220
328          RS       3    FLOW      -1
329          RC    .045    .045    .045    5484    .024
330          RX       0       1       2      14      29      41      42      43
331          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

332          KK     220
333          KM   SUB-BASIN 220
334          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
335          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
336          KM     L = 1.92  Kb = .044  Adj. Slope =  315.0
337          BA    .688
338          LG    .350    .330   7.300    .110   1.000
339          UC    .321    .218
340          UA       0       3       5       8      12      20      43      75      90      96
341          UA     100
             * DDM   ***** Preserved *****

342          KK   220C
343          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 240 & 220
344          HC       3

345          KK    D220
346          KM   DIVERT FLOW INTO OFFLINE BASIN
347          KM
348          KO       1
349          DT   220S
350          DI       0     900    5000
351          DQ       0       0    4000
             * DDM   ***** Preserved *****

352          KK   RT220S
353          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
354          DR   220S
             * DDM   ***** Preserved *****

355          KK   SR220S
356          KM   RETRIEVE FLOW INTO BASIN AND BLEED OFF WITHIN 36 HOURS
357          KM
358          KO       1       2
359          RS       1    STOR       0
360          SV       0      60
361          SE       0      10
362          SQ       0     300
             * DDM   ***** Preserved *****

363          KK    C220
364          KM   HYDROGRAPH COMBINATION OF DIVERTED FLOW
365          HC       2
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 10

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

366          KK    R220
367          KM   ROUTE FLOW FROM SUB-BASIN 220 TO SUB-BASIN 200
368          KM   PASS MOUNTAIN DIVERSION
369          RS       1    FLOW      -1
370          RC    .035    .025    .035    1900    .005
371          RX       0       5      10      40      70      85      90      95
372          RY      10      10      10       0       0      10      10      10
             * DDM   ***** Updated *****

373          KK     190
374          KM   SUB-BASIN 190
375          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
376          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
377          KM     L = 1.91  Kb = .042  Adj. Slope =  315.0
378          BA    .918
379          LG    .350    .390   5.800    .190   8.000
380          UC    .321    .185
381          UA       0       3       5       8      12      20      43      75      90      96
382          UA     100
             * DDM   ***** Preserved *****

383          KK    R190
384          KM   ROUTING OF FLOW FROM SUB-BASIN 190 TO SUB-BASIN 200
385          RS       4    FLOW      -1
386          RC    .045    .045    .045    6948    .023
387          RX       0       1       2      17      37      52      53      54
388          RY       5       5       5       0       0       5       5       5
             * DDM   ***** Updated *****

389          KK     200
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390          KM   SUB-BASIN 200
391          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
392          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
393          KM     L = 1.92  Kb = .042  Adj. Slope =  315.0
394          BA    .918
395          LG    .350    .390   5.800    .190   7.000
396          UC    .321    .185
397          UA       0       3       5       8      12      20      43      75      90      96
398          UA     100
             * DDM   ***** Preserved *****

399          KK    200C
400          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 220 & 200
401          HC       3
             * DDM   ***** Preserved *****

402          KK    R200
403          KM   ROUTE FLOW FROM SUB-BASIN 200 TO SIGNAL BUTTE FRS
404          RS       1    FLOW      -1
405          RC    .035    .025    .035    1300    .005
406          RX       0       1       2      17     117     132     133     134
407          RY       5       5       5       0       0       5       5       5
             * DDM   ***** Preserved *****
1                                          HEC-1 INPUT                                                    PAGE 11

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

408          KK    C180
409          KM   HYDROGRAPH COMBINATION FOR SIGNAL BUTTE FRS
             *      1       2
410          HC       2
             * DDM   ***** Preserved *****

411          KK   SR180
412          KM   SIGNAL BUTTE FRS DATED 1/28/85
413          KM   OUTLET PIPE=36"RCP; L= 147';  INLET INV.=1690; OUTLET INV.=1687
414          KM   EMERGENCY SPILLWAY ELEV.=1712.4; PRINCIPLE SPILLWAY ELEV.=1701
415          KM   STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 250 ACRE-FEET
416          RS       1    STOR       0
417          SV       0       1     250     500     750    1060
418          SQ       0   106.5   125.5   137.5     146     160
419          SE      90     101   104.5     107     109   112.4
             * DDM   ***** Preserved *****

420          KK    R180
421          KM   ROUTE FLOW FROM SIGNAL BUTTE FRS TO SUB-BASIN 260
422          RS       2    FLOW      -1
423          RC    .035    .025    .035    1500    .003
424          RX       0       1       2    22.6    38.6    59.2      60      61
425          RY     9.3     9.3     9.3       0       0     9.3     9.3     9.3
             * DDM   ***** Updated *****

426          KK     260
427          KM   SUB-BASIN 260
428          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
429          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
430          KM     L =  .81  Kb = .049  Adj. Slope =   68.0
431          BA    .267
432          LG    .300    .170   6.800    .160  15.000
433          UC    .363    .215
434          UA       0       5      16      30      65      77      84      90      94      97
435          UA     100
             * DDM   ***** Preserved *****

436          KK    260C
437          KM   HYDROGRAPH COMBINATION FOR OUTFLOW OF SIGNAL BUTTE FRS & SUB-BASIN 260
438          HC       2    .267
             * DDM   ***** Preserved *****

439          KK    R260
440          KM   ROUTE FLOW FROM SUB-BASIN 260 TO SUB-BASIN 280
441          RS       2    FLOW      -1
442          RC    .035    .025    .035    2300    .003
443          RX       0       1       2    23.4    43.4    64.8      65      66
444          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
             * DDM   ***** Updated *****
1                                          HEC-1 INPUT                                                    PAGE 12

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

445          KK     280
446          KM   SUB-BASIN 280
447          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
448          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
449          KM     L =  .77  Kb = .049  Adj. Slope =   84.0
450          BA    .304
451          LG    .300    .250   5.300    .290  15.000
452          UC    .333    .175
453          UA       0       5      16      30      65      77      84      90      94      97
454          UA     100
             * DDM   ***** Preserved *****

455          KK    280C
456          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 260 & SUB-BASIN 280
457          HC       2
             * DDM   ***** Preserved *****

458          KK    R280
459          KM   ROUTE FLOW FROM SUB-BASIN 280 TO SUB-BASIN 300
460          RS       2    FLOW      -1
461          RC    .035    .025    .035    2500    .003
462          RX       0       1       2    23.4    43.4    64.8      65      66
463          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
             * DDM   ***** Updated *****

464          KK     300
465          KM   SUB-BASIN 300
466          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
467          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
468          KM     L = 1.20  Kb = .044  Adj. Slope =   92.0
469          BA    .677
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470          LG    .330    .310   4.350    .420  10.000
471          UC    .421    .205
472          UA       0       5      16      30      65      77      84      90      94      97
473          UA     100
             * DDM   ***** Preserved *****

474          KK    300C
475          KM   HYDROGRAPH COMBINATION OF SUB-BASIN 280 & 300
476          HC       2
             * DDM   ***** Preserved *****

477          KK    R300
478          KM   ROUTE FLOW FROM SUB-BASIN 300 TO START OF FLOODWAY CONCRETE CHANNEL
479          RS       2    FLOW      -1
480          RC    .035    .025    .035    2200    .003
481          RX       0       1       2    23.4    55.4    76.8      77      78
482          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
             * DDM   ***** Preserved *****
1                                          HEC-1 INPUT                                                    PAGE 13

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

483          KK   RR300
484          KM   CONTINUE TO ROUTE FLOW WITHIN CONCRETE CHANNEL TO SPOOK HILL FRS
485          RS       1    FLOW      -1
486          RC    .016    .016    .016    6050   .0146
487          RX       0       1       2     2.1    16.1    16.2      17      18
488          RY     7.5     7.5     7.5       0       0     7.5     7.5     7.5
             *        1       2
             * DDM   ***** Updated *****
             * DDM   ***** Updated *****

489          KK     320
490          KM   SUB-BASIN 320
491          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
492          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .995
493          KM     L = 1.60  Kb = .042  Adj. Slope =  106.0
494          BA    .870
495          LG    .310    .290   4.500    .380  15.000
496          UC    .450    .240
497          UA       0       5      16      30      65      77      84      90      94      97
498          UA     100
             * DDM   ***** Preserved *****

499          KK    D320
500          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
501          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THREE SUBDIVISIONS
502          KM   SIERRA HEIGHTS       FALCON RIDGE    & MARBLE CREEK
503          KM        MAXIMUM VOLUME DIVERSION = 12.27acre-feet
             *        1
504          DT   BS320   12.27
505          DI       0   10000
506          DQ       0   10000
             * DDM   ***** Preserved *****

507          KK   RT320
508          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
509          DR   BS320
             * DDM   ***** Preserved *****

510          KK   SR320
511          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
512          KM   12.27 ACRE-FEETx43560/36x3600=4.1cfs
             *        1
513          RS       1    STOR       0
514          SV       0     .01    12.3
515          SQ       0     4.2     4.2
             * DDM   ***** Preserved *****

516          KK    C320
517          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
518          HC       3
             * DDM   ***** Updated *****
1                                          HEC-1 INPUT                                                    PAGE 14

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

519          KK     340
520          KM   SUB-BASIN 340
521          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
522          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
523          KM     L = 2.40  Kb = .042  Adj. Slope =  160.0
524          BA   1.449
525          LG    .280    .280   4.150    .520  21.000
526          UC    .512    .287
527          UA       0       5      16      30      65      77      84      90      94      97
528          UA     100
             * DDM   ***** Preserved *****

529          KK    D340
530          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
531          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THREE SUBDIVISIONS
532          KM   GRANDVIEW ESTATES    BOULDER MOUNTAIN & 33% OF MESA HIGHLANDS
533          KM        MAXIMUM VOLUME DIVERSION = 56.0 acre-feet
             *        1
534          DT   BS340      56
535          DI       0   10000
536          DQ       0   10000
             * DDM   ***** Preserved *****

537          KK   RT340
538          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
539          DR   BS340
             * DDM   ***** Preserved *****

540          KK   SR340
541          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
542          KM    56.0 ACRE-FEETx43560/36x3600=18.8cfs
             *        1
543          RS       1    STOR       0
544          SV       0     .01      56
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545          SQ       0    18.9    18.9
             * DDM   ***** Preserved *****

546          KK    C340
547          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
548          HC       3
             * DDM   ***** Preserved *****

549          KK     355
550          KM   SUB-BASIN 355
551          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
552          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
553          KM     L = 3.00  Kb = .044  Adj. Slope =  284.0
554          BA    .694
555          LG    .340    .340   4.450    .370   4.000
556          UC    .488    .494
557          UA       0       3       5       8      12      20      43      75      90      96
558          UA     100
             * DDM   ***** Preserved *****
1                                          HEC-1 INPUT                                          PAGE 15

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

559          KK    R355
560          KM   ROUTING OF FLOW FROM SUB-BASIN 355 TO SUB-BASIN 360
561          RS      10    FLOW      -1
562          RC    .045    .045    .045   11535    .023
563          RX       0       1       2      14      34      46      47      48
564          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

565          KK     370
566          KM   SUB-BASIN 370
567          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
568          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
569          KM     L = 2.90  Kb = .044  Adj. Slope =  294.6
570          BA    .667
571          LG    .340    .320   4.650    .330   9.000
572          UC    .454    .455
573          UA       0       3       5       8      12      20      43      75      90      96
574          UA     100
             * DDM   ***** Preserved *****

575          KK    R370
576          KM   ROUTING OF FLOW FROM SUB-BASIN 370 TO 360
577          RS      10    FLOW      -1
578          RC    .045    .045    .045   11782    .021
579          RX       0       1       2      14      29      41      42      43
580          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

581          KK     360
582          KM   SUB-BASIN 360
583          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
584          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
585          KM     L = 2.10  Kb = .048  Adj. Slope =  124.0
586          BA    .670
587          LG    .260    .270   4.100    .560  20.000
588          UC    .587    .466
589          UA       0       5      16      30      65      77      84      90      94      97
590          UA     100
             * DDM   ***** Preserved *****

591          KK    D360
592          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
593          KM   DETENTION/RETENTION BASINS LOCATED WITHIN 33% OF MESA HIGHLANDS
594          KM        MAXIMUM VOLUME DIVERSION = 28.6 acre-feet
             *     1
595          DT   BS360    28.6
596          DI       0   10000
597          DQ       0   10000
             * DDM   ***** Preserved *****
1                                          HEC-1 INPUT                                          PAGE 16

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

598          KK   RT360
599          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
600          DR   BS360
             * DDM   ***** Preserved *****

601          KK   SR360
602          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
603          KM    28.6 ACRE-FEETx43560/36x3600=9.6cfs
604          RS       1    STOR       0
605          SV       0     .01    28.6
606          SQ       0     9.6     9.6
             * DDM   ***** Preserved *****

607          KK    360C
608          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
609          HC       5
             * DDM   ***** Updated *****

610          KK     395
611          KM   SUB-BASIN 395
612          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
613          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
614          KM     L = 1.60  Kb = .051  Adj. Slope =  215.8
615          BA    .198
616          LG    .330    .320   4.900    .300  10.000
617          UC    .383    .468
618          UA       0       3       5       8      12      20      43      75      90      96
619          UA     100
             * DDM   ***** Preserved *****

620          KK    R395
621          KM   ROUTING OF FLOW FROM SUB-BASIN 395 TO SUB-BASIN 380
622          RS      13    FLOW      -1
623          RC    .045    .045    .045   11300    .021
624          RX       0       1       2      11      26      35      36      37
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625          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

626          KK     380
627          KM   SUB-BASIN 380
628          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
629          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
630          KM     L = 2.20  Kb = .048  Adj. Slope =  114.0
631          BA    .972
632          LG    .300    .310   4.150    .500   7.000
633          UC    .658    .444
634          UA       0       5      16      30      65      77      84      90      94      97
635          UA     100
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 17

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


636          KK    D380
637          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
638          KM   DETENTION/RETENTION BASINS LOCATED WITHIN 33% OF MESA HIGHLANDS
639          KM        MAXIMUM VOLUME DIVERSION = 28.6 acre-feet
             *      1
640          DT   BS380    28.6
641          DI       0   10000
642          DQ       0   10000
             * DDM   ***** Preserved *****

643          KK   RT380
644          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
645          DR   BS380
             * DDM   ***** Preserved *****

646          KK   SR380
647          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
648          KM    28.6 ACRE-FEETx43560/36x3600=9.6cfs
649          RS       1    STOR       0
650          SV       0     .01    28.6
651          SQ       0     9.6     9.6
             * DDM   ***** Preserved *****

652          KK    380C
653          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
654          HC       4
             * DDM   ***** Updated *****

655          KK     390
656          KM   SUB-BASIN 390
657          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
658          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
659          KM     L =  .70  Kb = .050  Adj. Slope =  299.4
660          BA    .244
661          LG    .300    .250   4.700    .380  18.000
662          UC    .204    .107
663          UA       0       5      16      30      65      77      84      90      94      97
664          UA     100
             * DDM   ***** Preserved *****

665          KK    D390
666          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
667          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THUNDER MOUNTAIN ESTATES
668          KM        MAXIMUM VOLUME DIVERSION  = 3.5 acre-feet
             *      1
669          DT   BS390     3.5
670          DI       0   10000
671          DQ       0   10000
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 18

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


672          KK   RT390
673          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
674          DR   BS390
             * DDM   ***** Preserved *****

675          KK   SR390
676          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
677          KM     3.5 ACRE-FEETx43560/36x3600=1.2cfs
678          RS       1    STOR       0
679          SV       0     .01     3.5
680          SQ       0     1.2     1.2
             * DDM   ***** Preserved *****

681          KK    390C
682          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
683          HC       2
             * DDM   ***** Preserved *****

684          KK   RR390
685          KM   FROM SUB-BASIN 390 TO SUB-BASIN 400
686          RS       8    FLOW      -1
687          RC    .045    .045    .045    9029    .020
688          RX       0       1       2      14      19      31      32      33
689          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

690          KK     400
691          KM   SUB-BASIN 400
692          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
693          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
694          KM     L = 1.64  Kb = .046  Adj. Slope =  110.0
695          BA    .616
696          LG    .320    .320   3.130    .930   6.000
697          UC    .592    .405
698          UA       0       5      16      30      65      77      84      90      94      97
699          UA     100
             * DDM   ***** Preserved *****

700          KK    D400
701          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
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702          KM   DETENTION/RETENTION BASIN LOCATED WITHIN SAGUARO VISTA SUBDIVISION
703          KM        MAXIMUM VOLUME DIVERSION = 5.6 ACRE-FEET
             *     1
704          DT   BS400     5.6
705          DI       0   10000
706          DQ       0   10000
             * DDM   ***** Preserved *****

707          KK   RT400
708          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
709          DR   BS400
             * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE 19

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

710          KK   SR400
711          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
712          KM     5.6 ACRE-FEETx43560/36x3600 = 2 cfs
713          RS       1    STOR       0
714          SV       0     .01     5.6
715          SQ       0       2       2
             * DDM   ***** Preserved *****

716          KK    C400
717          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
718          HC       2
             * DDM   ***** Preserved *****

719          KK    400C
720          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
721          HC       3
             * DDM   ***** Updated *****

722          KK     385
723          KM   SUB-BASIN 385
724          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
725          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
726          KM     L = 2.30  Kb = .044  Adj. Slope =  303.0
727          BA   .647
728          LG   .350    .370   5.600    .210  13.000
729          UC   .375    .311
730          UA       0       3       5       8      12      20      43      75      90      96
731          UA     100
             * DDM   ***** Preserved *****

732          KK    D385
733          KM   DIVERT FLOW INTO SUB-BASINS 415 & 420
734          DT   SF385
735          DI       0   10000
736          DQ       0    4000
             * DDM   ***** Preserved *****

737          KK    385R
738          KM   ROUTING OF FLOW DIVERSION FROM SUB-BASIN 385 INTO SUB-BASIN 420
739          RS       8    FLOW      -1
740          RC    .045    .045    .045   10233    .022
741          RX       0       1       2      14      19      31      32      33
742          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

743          KK     420
744          KM   SUB-BASIN 420
745          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
746          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .995
747          KM     L = 1.91  Kb = .042  Adj. Slope =  120.0
748          BA    .849
749          LG    .310    .270   3.880    .580  12.000
750          UC    .512    .325
751          UA       0       5      16      30      65      77      84      90      94      97
1                                    HEC-1 INPUT                                          PAGE 20

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

752          UA     100
             * DDM   ***** Preserved *****

753          KK    D420
754          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
755          KM   DETENTION/RETENTION BASINS LOCATED WITHIN GRAY FOX SUBDIVISION
756          KM        MAXIMUM VOLUME DIVERSION = 8.65 acre-feet
             *     1
757          DT   BS420    8.65
758          DI       0   10000
759          DQ       0   10000
             * DDM   ***** Preserved *****

760          KK   RT420
761          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
762          DR   BS420
             * DDM   ***** Preserved *****

763          KK   SR420
764          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
765          KM   38.55 ACRE-FEETx43560/36x3600=13cfs
766          RS       1    STOR       0
767          SV       0     .01   38.55
768          SQ       0      13      13
             * DDM   ***** Preserved *****

769          KK    420C
770          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
771          HC       4   10.77
             * DDM   ***** Updated *****

772          KK     440
773          KM   SUB-BASIN 440
774          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
775          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
776          KM     L =  .40  Kb = .039  Adj. Slope =  315.0
777          BA    .080
778          LG    .190    .380   6.400    .140  13.000
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779          UC    .129    .077
780          UA       0       3       5       8      12      20      43      75      90      96
781          UA     100
             * DDM   ***** Preserved *****

782          KK     R70
783          KM   ROUTE FLOW FROM SUB-BASIN 440 TO C108
784          RS       1    FLOW      -1
785          RC     .05    .035     .05    2250     .08
786          RX    1000    1025    1050    1070    1075    1095    1120    1145
787          RY      30    22.9    15.7      10      10    15.7    22.9      30
             * DDM   ***** Updated *****
1                                        HEC-1 INPUT                                                PAGE 21

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


788          KK     441
789          KM   SUB-BASIN 441
790          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
791          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
792          KM     L =  .28  Kb = .069  Adj. Slope =  315.0
793          BA    .010
794          LG    .300    .250   5.600    .220   5.000
795          UC    .150    .225
796          UA       0       5      16      30      65      77      84      90      94      97
797          UA     100
             * DDM   ***** Preserved *****

798          KK    C108
799          KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 440 & 441
800          HC       2
             * DDM   ***** Preserved *****

801          KK    DIV4
802          KM        SPLIT FLOW WITH TWO 42 INCH PIPES TO WEST AND SOUTH
             *      1
803          DT   SPLIT
804          DI       0      14      40      82     120     154     180
805          DQ       0       7      20      41      60      77      90
             * DDM   ***** Preserved *****

806          KK    R108
807          KM        ROUTE FLOW FROM SUB-BASIN C108 TO C67
808          RS       2    FLOW      -1
809          RC     .05    .035     .05    3200      .1
810          RX    1000    1025    1050    1070    1075    1095    1120    1145
811          RY      30    22.9    15.7      10      10    15.7    22.9      30
             * DDM   ***** Updated *****

812          KK     442
813          KM   SUB-BASIN 442
814          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
815          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
816          KM     L =  .83  Kb = .055  Adj. Slope =  274.2
817          BA    .100
818          LG    .300    .270   3.290    .770   5.000
819          UC    .258    .264
820          UA       0       5      16      30      65      77      84      90      94      97
821          UA     100
             * DDM   ***** Preserved *****

822          KK     C67
823          KM   COMBINE FLOW FROM SUB-BASIN 442 & DIV4
824          HC       2
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                                PAGE 22

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


825          KK    DIV6
826          KM        OFFLINE BASIN WITH 25 FOOT WEIR SET AT 2.5 FEET ABOVE BOTTOM OF CHANNEL
827          KM        FLOW CONTINUES BEYOND BASIN THROUGH 2-30" PIPES
             *      1
828          DT  BASIN4
829          DI       0      10      32      44    79.9   132.5     198   272.9   356.8
830          DQ       0       0       0       0    23.9    67.5     124   190.9   266.8
             * DDM   ***** Preserved *****

831          KK  RTDIV6
832          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
833          DR  BASIN4
             * DDM   ***** Preserved *****

834          KK  RFDIV6
835          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
836          KM     3.3 ACRE-FEETx43560/36x3600=1.1cfs
             *      1
837          RS       1    STOR       0
838          SV       0     .01     3.3
839          SQ       0     1.1     1.1
             * DDM   ***** Preserved *****

840          KK   CDIV6
841          KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
842          HC       2
             * DDM   ***** Updated *****

843          KK     443
844          KM   SUB-BASIN 443
845          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
846          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
847          KM     L =  .71  Kb = .050  Adj. Slope =  315.0
848          BA    .080
849          LG    .250    .190   8.000    .080  10.000
850          UC    .196    .194
851          UA       0       5      16      30      65      77      84      90      94      97
852          UA     100
             * DDM   ***** Preserved *****

853          KK   DIV66
854          KM        DIVERT FLOW INTO 3 NATURAL WASHES WITH ONE 24" PIPE IN EACH WASH.
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855          KM        EACH PIPE CAPACITY BASED ON 4 FEET OF HEAD
856          DT   WSH66
857          DI       0      78     100     200
858          DQ       0      78      78      78
             * DDM   ***** Preserved *****

859          KK    R113
860          KM        ROUTE FLOW FROM C113 TO C114
861          RS       1    FLOW      -1
862          RC    .019    .019    .019    1300    .029
863          RX    1000    1004    1008    1012    1018    1022    1026    1030
864          RY      17   15.33   12.67      10      10   12.67   15.33      17
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                                    PAGE 23

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

865          KK    C114
866          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 67 AND C113
867          HC       2
             * DDM   ***** Updated *****

868          KK     444
869          KM   SUB-BASIN 444
870          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
871          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
872          KM     L =  .33  Kb = .034  Adj. Slope =  315.0
873          BA    .040
874          LG    .130    .350   4.450    .320   1.000
875          UC    .112    .084
876          UA       0       3       5       8      12      20      43      75      90      96
877          UA     100
             * DDM   ***** Preserved *****

878          KK     R58
879          KM   ROUTE FLOW FROM SUB-BASIN 444 TO C107
880          RS       1    FLOW      -1
881          RC     .05    .035     .05    2370   .0516
882          RX    1000    1010    1020    1050    1055    1085    1095    1105
883          RY      19      18      17      10      10      17      18      19
             * DDM   ***** Updated *****

884          KK     445
885          KM   SUB-BASIN 445
886          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
887          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
888          KM     L =  .82  Kb = .036  Adj. Slope =  315.0
889          BA    .190
890          LG    .170    .320   3.470    .590   3.000
891          UC    .192    .130
892          UA       0       5      16      30      65      77      84      90      94      97
893          UA     100
             * DDM   ***** Preserved *****

894          KK    C107
895          KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 444 & 445
896          HC       2
             * DDM   ***** Preserved *****

897          KK    R107
898          KM        ROUTE FLOW FROM C107 TO C109
899          RS       1    FLOW      -1
900          RC     .05    .035     .05     700   .0516
901          RX    1000    1010    1020    1050    1055    1085    1095    1105
902          RY      19      18      17      10      10      17      18      19
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                                    PAGE 24

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

903          KK    RTB2
904          KM        RETRIEVE DIVERTED FLOW FROM BASIN 1
             *      1
905          DR   SPLIT
             * DDM   ***** Preserved *****

906          KK  RSPLIT
907          KM        ROUTE FLOW FROM SPLIT TO C109
908          RS       1    FLOW      -1
909          RC     .05    .035     .05     800     .05
910          RX    1000    1025    1050    1070    1075    1095    1120    1145
911          RY      30    22.9    15.7      10      10    15.7    22.9      30
             * DDM   ***** Updated *****

912          KK     446
913          KM   SUB-BASIN 446
914          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
915          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
916          KM     L =  .46  Kb = .061  Adj. Slope =  303.9
917          BA    .040
918          LG    .270    .250   4.500    .400  19.000
919          UC    .183    .189
920          UA       0       5      16      30      65      77      84      90      94      97
921          UA     100
             * DDM   ***** Preserved *****

922          KK    C109
923          KM        COMBINE HYDROGRAPHS FROM COMBINES C107 AND C108
924          HC       3
             * DDM   ***** Preserved *****

925          KK    DIV5
926          KM        DIVERT FLOW INTO WASHES TOWARDS WEST
927          KM        DIVERSION THROUGH 36" PIPE WITH 3 FEET OF HEAD
             *      1
928          DT  WSH404
929          DI       0    40.7    71.2   121.6     190     276   379.4   500.6
930          DQ       0      35      35      35      35      35      35      35
             * DDM   ***** Preserved *****

931          KK    R109
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 932          KM        ROUTE FLOW FROM C109 TO C110
 933          RS       1    FLOW      -1
 934          RC    .019    .019    .019    3080     .05
 935          RX    1000    1005    1010    1015    1025    1030    1035    1040
 936          RY   13.75    12.5   11.25      10      10   11.25    12.5   13.75
              * DDM   ***** Updated *****

 937          KK     447
 938          KM   SUB-BASIN 447
 939          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 940          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
 941          KM     L =  .49  Kb = .056  Adj. Slope =  221.0
 942          BA    .090
1                                        HEC-1 INPUT                                          PAGE 25

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

 943          LG    .250    .270   3.350    .870  30.000
 944          UC    .208    .145
 945          UA       0       5      16      30      65      77      84      90      94      97
 946          UA     100
              * DDM   ***** Preserved *****

 947          KK   RT404
 948          KM        RETRIEVE DIVERTED FLOW FOR WASH 109
 949          DR  WSH404
              * DDM   ***** Preserved *****

 950          KK    R404
 951          KM        ROUTE FLOW FROM C110 TO C110
 952          RS       5    FLOW      -1
 953          RC    .019    .019    .019    3540     .03
 954          RX    1000    1012    1016    1020    1025    1029    1033    1045
 955          RY      15      12      11      10      10      11      12      15
              * DDM   ***** Preserved *****

 956          KK    C110
 957          KM   COMBINE HYDROGRAPHS FROM SUB-BASIN 447 AND R404
 958          HC       3
              * DDM   ***** Preserved *****

 959          KK    R110
 960          KM        ROUTE FLOW FROM C110 TO C115
 961          RS       1    FLOW      -1
 962          RC    .019    .019    .019     580   .0291
 963          RX    1000    1012    1016    1020    1035    1039    1043    1055
 964          RY      15      12      11      10      10      11      12      15
              * DDM   ***** Preserved *****

 965          KK    C115
 966          KM        COMBINE HYDROGRAPHS FROM C114 AND C110
 967          HC       2
              * DDM   ***** Preserved *****

 968          KK    R115
 969          KM        ROUTE FLOW FROM C115 TO C119
 970          RS       1    FLOW      -1
 971          RC    .019    .019    .019    2125    .029
 972          RC    .019    .019    .019     580   .0291
 973          RX    1000    1012    1016    1020    1035    1039    1043    1055
 974          RY      15      12      11      10      10      11      12      15
              * DDM   ***** Updated *****

 975          KK     448
 976          KM   SUB-BASIN 448
 977          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 978          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
 979          KM     L =  .36  Kb = .042  Adj. Slope =  315.0
 980          BA    .045
 981          LG    .170    .310   4.200    .390  11.000
 982          UC    .133    .102
 983          UA       0       5      16      30      65      77      84      90      94      97
1                                        HEC-1 INPUT                                          PAGE 26

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

 984          UA     100
              * DDM   ***** Updated *****

 985          KK     449
 986          KM   SUB-BASIN 449
 987          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 988          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
 989          KM     L =  .40  Kb = .054  Adj. Slope =  315.0
 990          BA    .050
 991          LG    .260    .280   3.500    .640   6.000
 992          UC    .167    .134
 993          UA       0       5      16      30      65      77      84      90      94      97
 994          UA     100
              * DDM   ***** Preserved *****

 995          KK   C6364
 996          KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 448 & 449
 997          HC       2
              * DDM   ***** Preserved *****

 998          KK   R6364
 999          KM   ROUTE FLOW FROM C116 AND SUB-BASINS 448 AND 449
1000          RS       4    FLOW      -1
1001          RC     .05    .035     .05    4375   .0333
1002          RX    1000    1027    1053    1080    1090    1117    1143    1170
1003          RY      15   13.33   11.67      10      10   11.67   13.33      15
              * DDM   ***** Updated *****

1004          KK     450
1005          KM   SUB-BASIN 450
1006          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1007          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
1008          KM     L =  .85  Kb = .057  Adj. Slope =  210.5
1009          BA    .070
1010          LG    .340    .350   3.630    .570   4.000
1011          UC    .296    .383
1012          UA       0       3       5       8      12      20      43      75      90      96
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1013          UA     100
              * DDM   ***** Updated *****

1014          KK     451
1015          KM   SUB-BASIN 451
1016          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1017          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
1018          KM     L =  .57  Kb = .063  Adj. Slope =  175.0
1019          BA    .025
1020          LG    .340    .340   3.290    .750   3.000
1021          UC    .271    .453
1022          UA       0       3       5       8      12      20      43      75      90      96
1023          UA     100
              * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 27

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


1024          KK    RT66
1025          KM        RETRIEVE DIVERTED FLOW FROM SUB-BASIN 66
1026          DR   WSH66
              * DDM   ***** Updated *****

1027          KK     452
1028          KM   SUB-BASIN 452
1029          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1030          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
1031          KM     L =  .43  Kb = .055  Adj. Slope =  315.0
1032          BA    .040
1033          LG    .260    .280   3.700    .550   9.000
1034          UC    .171    .166
1035          UA       0       5      16      30      65      77      84      90      94      97
1036          UA     100
              * DDM   ***** Preserved *****

1037          KK   C6465
1038          KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 443 AND 452
1039          HC       2
              * DDM   ***** Preserved *****

1040          KK   R6566
1041          KM        ROUTE FLOW FROM DIVERSIONS 65 AND 66 TO C116
1042          RS       2    FLOW      -1
1043          RC     .05    .035     .05    2435   .0282
1044          RX    1000    1045    1090    1150    1160    1220    1265    1310
1045          RY      25      23      20      10      10      20      23      25
              * DDM   ***** Preserved *****

1046          KK    C116
1047          KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 450 & 451 AND R6364 & R6465
1048          HC       4
              * DDM   ***** Preserved *****

1049          KK  BASIN5
1050          KM        RESERVOIR WITHIN PARCEL 31      2-48 INCH PIPES AT OUTFALL
1051          KM        BASIN 5 FEET DEEP
1052          RS       1    ELEV       0
1053          SV       0     4.5     9.9
1054          SQ       0      69     190
1055          SE       0     2.5       5
              * DDM   ***** Preserved *****

1056          KK    R116
1057          KM   ROUTE FLOW FROM C116 TO C117
1058          RS       2    FLOW      -1
1059          RC     .05    .035     .05    1300   .0333
1060          RX    1000    1100    1200    1300    1320    1420    1520    1620
1061          RY      13      12      11      10      10      11      12      13
              * DDM   ***** Updated *****
1                                        HEC-1 INPUT                                          PAGE 28

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


1062          KK     453
1063          KM   SUB-BASIN 453
1064          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1065          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
1066          KM     L =  .58  Kb = .058  Adj. Slope =  138.0
1067          BA    .060
1068          LG    .290    .300   3.290    .820  18.000
1069          UC    .275    .284
1070          UA       0       5      16      30      65      77      84      90      94      97
1071          UA     100
              * DDM   ***** Preserved *****

1072          KK    C117
1073          KM   COMBINE HYDROGRAPHS FROM SUB-BASIN 453 AND R116
1074          HC       2
              * DDM   ***** Preserved *****

1075          KK    C118
1076          KM   COMBINE HYDROGRAPHS FROM R115 AND C117
1077          HC       2
              * DDM   ***** Preserved *****

1078          KK    R118
1079          KM        ROUTE FLOW FROM C118 TO  DIV7
1080          RS       1    FLOW      -1
1081          RC    .019    .019    .019    1500    .024
1082          RX    1000    1012    1016    1020    1035    1039    1043    1055
1083          RY      15      12      11      10      10      11      12      15
              * DDM   ***** Preserved *****

1084          KK    DIV7
1085          KM        OFFLINE BASIN AT NORTH MOUNTAIN RIDGE   FLOWS ENTER BASIN OVER
1086          KM        30' WEIR SET AT 5.3' ABOVE THE CHANNEL BOTTOM
              *      1
1087          DT  BASIN6
1088          DI       0     363     487     563     645     844
1089          DQ       0       3      47      83     125     244
              * DDM   ***** Preserved *****
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1090          KK  RTDIV7
1091          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
1092          DR  BASIN6
              * DDM   ***** Preserved *****

1093          KK  RFDIV7
1094          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
1095          KM     3.6 ACRE-FEETx43560/36x3600=1.2cfs
1096          RS       1    STOR       0
1097          SV       0     .01     3.6
1098          SQ       0     1.2     1.2
              * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 29

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


1099          KK   CDIV7
1100          KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
1101          HC       2
              * DDM   ***** Updated *****

1102          KK     454
1103          KM   SUB-BASIN 454
1104          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1105          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1106          KM     L = 1.23  Kb = .051  Adj. Slope =  163.0
1107          BA    .180
1108          LG    .300    .310   3.780    .560  14.000
1109          UC    .379    .395
1110          UA       0       5      16      30      65      77      84      90      94      97
1111          UA     100
              * DDM   ***** Preserved *****

1112          KK    C119
1113          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 454 AND C119
              *      1       2
1114          HC       2
              * DDM   ***** Preserved *****

1115          KK    R454
1116          KM   ROUTE FLOW FROM C119 TO 415C
1117          RS       8    FLOW      -1
1118          RC    .045    .035    .045    6000    .005
1119          RX    1000    1010    1020    1036    1041    1057    1067    1077
1120          RY      15    14.5      14      10      10      14    14.5      15
              * DDM   ***** Updated *****

1121          KK     415
1122          KM   SUB-BASIN 415
1123          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1124          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
1125          KM     L = 2.10  Kb = .046  Adj. Slope =  266.0
1126          BA    .448
1127          LG    .310    .270   4.250    .480  15.000
1128          UC    .404    .387
1129          UA       0       5      16      30      65      77      84      90      94      97
1130          UA     100
              * DDM   ***** Preserved *****

1131          KK   RT385
1132          KM   RETRIEVE FLOW FROM DIVERSION OF SUB-BASIN 385 INTO SUB-BASIN 415
1133          DR   SF385
              * DDM   ***** Preserved *****

1134          KK   RR385
1135          KM   ROUTING OF SPLIT FLOW FROM SUB-BASIN 385 TO SUB-BASIN 415
1136          RS       5    FLOW      -1
1137          RC    .045    .045    .045    5878    .024
1138          RX       0       1       2      14      19      31      32      33
1139          RY       4       4       4       0       0       4       4       4
              * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 30

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


1140          KK    415C
1141          KM   HYDROGRAPH COMBINATION OF SUB-BASINS 415, R454 & SPLIT FLOW FROM 385
1142          HC       3
              * DDM   ***** Preserved *****

1143          KK    R415
1144          KM   ROUTING OF FLOW FROM 415C TO 455C
1145          RS       3    FLOW      -1
1146          RC    .045    .045    .045    3900    .021
1147          RX       0       1       2      14      44      56      57      58
1148          RY       4       4       4       0       0       4       4       4
              * DDM   ***** Updated *****

1149          KK     455
1150          KM   SUB-BASIN 455
1151          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1152          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .993
1153          KM     L = 1.70  Kb = .041  Adj. Slope =  146.0
1154          BA   1.111
1155          LG    .270    .280   3.700    .640  24.000
1156          UC    .421    .204
1157          UA       0       5      16      30      65      77      84      90      94      97
1158          UA     100
              * DDM   ***** Preserved *****

1159          KK    D455
1160          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
1161          KM   DETENTION/RETENTION BASINS LOCATED WITHIN LAS SENDAS ADDENDUM III
1162          KM   FOR BASIN #: 30      34      43      47&58
1163          KM        MAXIMUM VOLUME DIVERSION = 74.1 acre-feet
              *      1
1164          DT   BS455    74.1
1165          DI       0   10000
1166          DQ       0   10000
              * DDM   ***** Preserved *****
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1167          KK   RT455
1168          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
1169          DR   BS455
              * DDM   ***** Preserved *****

1170          KK   SR455
1171          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
1172          KM    74.1 ACRE-FEETx43560/36x3600=25cfs
1173          RS       1    STOR       0
1174          SV       0     .01    74.1
1175          SQ       0      25      25
              * DDM   ***** Preserved *****
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1176          KK    C455
1177          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 455 AND DIVERTED BASIN STORAGE OF 455
1178          HC       2
              * DDM   ***** Preserved *****

1179          KK    455C
1180          KM  HYDROGRAPH COMBINATION OF 420C, R415 AND C455
              *      1       2
1181          HC       3
              * DDM   ***** Preserved *****

1182          KK   SR440
1183          KM   SPOOK HILL FRS PLANS DATED 6/15/77
1184          KM   OUTLET PIPE=7'x7.5'RCBC; L=70 INLET INV.=1566; OUTLET INV.=1566
1185          KM   EMERGENCY SPILLWAY ELEV.=1582; PRINCIPLE SPILLWAY ELEV.=1577.5
1186          KM   STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 200 ACRE-FEET
1187          RS       1    STOR       0
1188          SV       0      10     100     300     500     680
1189          SQ       0     640     720     780     825     860
1190          SE      66    77.5      79    80.2    81.2      82
              * DDM   ***** Preserved *****

1191          KK   RR455
1192          KM   ROUTE FLOW FROM SPOOK HILL FRS TO SUB-BASIN 462
1193          RS       9    FLOW      -1
1194          RC    .035    .025    .035    9200    .002
1195          RX       0       1       2      28      58      84      85      86
1196          RY    13.5    13.5    13.5       0       0    13.5    13.5    13.5
              * DDM   ***** Updated *****

1197          KK     456
1198          KM   SUB-BASIN 456
1199          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1200          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
1201          KM     L =  .94  Kb = .045  Adj. Slope =  315.0
1202          BA    .260
1203          LG    .300    .380   5.600    .200  12.000
1204          UC    .217    .139
1205          UA       0       5      16      30      65      77      84      90      94      97
1206          UA     100
              * DDM   ***** Preserved *****

1207          KK    DIV1
1208          KM        DIVERT FLOW INTO OFFLINE DETENTION BASIN
1209          KM        WEIR FOR BASIN SET AT 4 FEET ABOVE CHANNEL BOTTOM
              *      1
1210          DT  BASIN1
1211          DI       0    11.1   127.9   234.4   577.7   789.9  1025.5  1280.9  1555.7
1212          DQ       0       0       0    47.7     248   381.8   533.6   701.5     884
              * DDM   ***** Preserved *****
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LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1213          KK    DIV2
1214          KM        SPLIT OUT FLOW FOR WASHES THAT FLOW TO THE SOUTH FROM
1215          KM        WASHES THAT DRAIN TO THE WES, SOUTHERN WASHES FED BY 30" & 24" PIPE
1216          DT    WA30
1217          DI       0    11.1   127.9   189.6   329.7     408   491.9   579.4   671.7
1218          DQ       0    11.1    38.4    48.2      63    69.5      76      81      86
              * DDM   ***** Preserved *****

1219          KK    R456
1220          KM        ROUTE FLOW FROM SUB-BASIN 51 TO C101
1221          RS       2    FLOW      -1
1222          RC     .05    .035     .05    3800    .044
1223          RX    1000    1010    1020    1036    1041    1057    1067    1077
1224          RY   14.88   14.44      14      10      10      14   14.44   14.88
              * DDM   ***** Updated *****

1225          KK     457
1226          KM   SUB-BASIN 457
1227          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1228          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1229          KM     L = 1.01  Kb = .045  Adj. Slope =  308.8
1230          BA    .190
1231          LG    .270    .330   3.950    .460   6.000
1232          UC    .237    .195
1233          UA       0       5      16      30      65      77      84      90      94      97
1234          UA     100
              * DDM   ***** Preserved *****

1235          KK    C101
1236          KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 50 AND 51
1237          HC       2
              * DDM   ***** Preserved *****

1238          KK    DIV3
1239          KM        RESERVOIR AT THE EDGE OF THE PROPERTY   FLOW FROM CHANNEL
1240          KM        DIVERTED  INTO OFFLINE BASIN A 25' WEIR SET AT ELEVATION 1808 FT
              *      1
1241          DT  BASIN2
1242          DI       0      36      70     110     180   313.5     402   500.9
1243          DQ       0       0       0       0       0    67.5     124   190.9
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            * DDM   ***** Preserved *****

1244        KK  RTDIV3
1245        KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
1246        DR  BASIN2
            * DDM   ***** Preserved *****

1247        KK  RFDIV3
1248        KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
1249        KM     5.0 ACRE-FEETx43560/36x3600=1.7cfs
1250        RS       1    STOR       0
1251        SV       0     .01       5
1252        SQ       0     1.7     1.7
            * DDM   ***** Preserved *****
1                                   HEC-1 INPUT                                          PAGE 33

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


1253        KK   CDIV3
1254        KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
1255        HC       2
            * DDM   ***** Preserved *****

1256        KK    R101
1257        KM        ROUTE FLOW FROM SUBBASIN C101 TO C103
1258        RS       1    FLOW      -1
1259        RC     .05    .035     .05    1450     .05
1260        RX    1000    1010    1020    1036    1041    1057    1067    1077
1261        RY      15    14.5      14      10      10      14    14.5      15
            * DDM   ***** Updated *****

1262        KK     458
1263        KM   SUB-BASIN 458
1264        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1265        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1266        KM    L =  .76  Kb = .048  Adj. Slope =  299.0
1267        BA    .190
1268        LG    .290    .330   5.800    .190   6.000
1269        UC    .204    .131
1270        UA       0       5      16      30      65      77      84      90      94      97
1271        UA     100
            * DDM   ***** Preserved *****

1272        KK    C103
1273        KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 55 AND C101
1274        HC       2
            * DDM   ***** Preserved *****

1275        KK    R103
1276        KM        ROUTE FLOW FROM SUBBASIN C103 TO C106
1277        RS       1    FLOW      -1
1278        RC     .05    .035     .05     900     .03
1279        RX    1000    1010    1020    1030    1050    1060    1070    1080
1280        RY   13.16   12.83    12.5      10      10    12.5   12.83   13.16
            * DDM   ***** Preserved *****

1281        KK    RT30
1282        KM        RETRIEVE DIVERTED FLOW FOR WASH BELOW 30 INCH PIPE
1283        DR    WA30
            * DDM   ***** Preserved *****

1284        KK     R30
1285        KM        ROUTE FLOW FROM WASH DIVERSION TO COMBINE C52
1286        RS       1    FLOW      -1
1287        RC     .05    .035     .05    1630     .05
1288        RX    1000    1010    1020    1036    1041    1057    1067    1077
1289        RY      15    14.5      14      10      10      14    14.5      15
            * DDM   ***** Preserved *****
1                                   HEC-1 INPUT                                          PAGE 34

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


1290        KK    RTB1
1291        KM        RETRIEVE DIVERTED FLOW FROM BASIN 1
            *      1       2
1292        DR  BASIN1
            * DDM   ***** Preserved *****

1293        KK      B1
1294        KM        ROUTE FLOW THROUGH OFFLINE DETENTION BASIN
1295        KM        FLOW OUTLETS THROUGH A 30 INCH OUTLET PIPE
            *      1       2
1296        RS       1    ELEV       0
1297        SV              .7     1.4     2.3     2.7     3.2
1298        SQ       0       5      16      28    32.5      37
1299        SE       0       1       2       3     3.5       4
            * DDM   ***** Preserved *****

1300        KK     RB1
1301        KM        ROUTE FLOW FROM BASIN DIVERSION TO COMBINE C52
1302        RS       2    FLOW      -1
1303        RC     .05    .035     .05    1720     .05
1304        RX    1000    1010    1020    1036    1041    1057    1067    1077
1305        RY      15    14.5      14      10      10      14    14.5      15
            * DDM   ***** Preserved *****

1306        KK    CDIV
1307        KM        COMBINE FLOWS FROM WA30 AND BASIN 1
1308        HC       2     .12
            * DDM   ***** Updated *****

1309        KK     459
1310        KM   SUB-BASIN 459
1311        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1312        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
1313        KM    L =  .35  Kb = .052  Adj. Slope =  251.6
1314        BA    .030
1315        LG    .220    .300   3.330    .710   8.000
1316        UC    .162    .157
1317        UA       0       5      16      30      65      77      84      90      94      97
1318        UA     100
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            * DDM   ***** Preserved *****

1319        KK     C52
1320        KM        COMBINE FLOWS FROM SUB-BASIN 52 WA30 AND BASIN 1
1321        HC       2
            * DDM   ***** Preserved *****

1322        KK     R52
1323        KM        ROUTE FLOW FROM SUBBASIN 52 TO C102
1324        RS       2    FLOW      -1
1325        RC     .05    .035     .05    2000     .05
1326        RX    1000    1010    1020    1036    1041    1057    1067    1077
1327        RY      15    14.5      14      10      10      14    14.5      15
            * DDM   ***** Updated *****
1                                   HEC-1 INPUT                                                    PAGE 35

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


1328        KK     460
1329        KM   SUB-BASIN 460
1330        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1331        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1332        KM     L =  .62  Kb = .058  Adj. Slope =  194.0
1333        BA    .140
1334        LG    .250    .260   3.740    .690  27.000
1335        UC    .242    .160
1336        UA       0       5      16      30      65      77      84      90      94      97
1337        UA     100
            * DDM   ***** Preserved *****

1338        KK    C102
1339        KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 52 AND 53
1340        HC       2
            * DDM   ***** Preserved *****

1341        KK  BASIN3
1342        KM        RESERVOIR AT CLUBHOUSE LOCATION 1-30 INCH PIPE AT OUTFALL
1343        KM        BOTTOM OF BASIN AT 6 FEET ABOVE 1795 ELEVATION
1344        RS       1    ELEV       0
1345        SA       0       0       0       0     .34    1.59    1.81    1.96    2.13     2.3
            *      0       0       0       0    1.14    3.25    5.52    9.23
1346        SQ       0      22      45    47.4      48      51      57      62      67      73
1347        SE    1795  1797.5    1800  1800.4  1800.5    1801    1802    1803    1804  1805.5
            * DDM   ***** Preserved *****

1348        KK      R3
1349        KM        ROUTE FLOW FROM C102 to C106
1350        RS       4    FLOW      -1
1351        RC     .05     .03     .05    2750   .0375
1352        RX    1000    1010    1020    1052    1086    1118    1128    1138
1353        RY    19.2    18.4      18      10      10      18    18.4    19.2
            * DDM   ***** Updated *****

1354        KK     461
1355        KM   SUB-BASIN 461
1356        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1357        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1358        KM     L =  .83  Kb = .052  Adj. Slope =  181.0
1359        BA    .120
1360        LG    .270    .250   4.250    .450  21.000
1361        UC    .271    .250
1362        UA       0       5      16      30      65      77      84      90      94      97
1363        UA     100
            * DDM   ***** Preserved *****

1364        KK    C104
1365        KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 54 AND R102
1366        HC       2
            * DDM   ***** Preserved *****
1                                   HEC-1 INPUT                                                    PAGE 36

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


1367        KK    C106
1368        KM        COMBINE HYDROGRAPHS FROM SUB-BASIN C103 AND C104
1369        HC       2
            * DDM   ***** Preserved *****

1370        KK    R106
1371        KM        ROUTE FLOW FROM C106 TO C49
1372        RS       2    FLOW      -1
1373        RC     .05    .035     .05    3950    .033
1374        RX    1000    1010    1020    1030    1050    1060    1070    1080
1375        RY   13.16   12.83    12.5      10      10    12.5   12.83   13.16
            * DDM   ***** Updated *****

1376        KK     462
1377        KM   SUB-BASIN 462
1378        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1379        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
1380        KM     L =  .97  Kb = .045  Adj. Slope =  297.7
1381        BA    .301
1382        LG    .300    .330   5.300    .240  12.000
1383        UC    .225    .137
1384        UA       0       5      16      30      65      77      84      90      94      97
1385        UA     100
            * DDM   ***** Preserved *****

1386        KK     C56
1387        KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 56 AND C106
            *      1       2
1388        HC       2
            * DDM   ***** Updated *****

1389        KK     480
1390        KM   SUB-BASIN 480
1391        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1392        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
1393        KM     L = 1.21  Kb = .042  Adj. Slope =  165.0
1394        BA    .731
1395        LG    .270    .270   3.580    .730  27.000
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1396          UC    .325    .148
1397          UA       0       5      16      30      65      77      84      90      94      97
1398          UA     100
              * DDM   ***** Preserved *****

1399          KK    D480
1400          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
1401          KM   DETENTION/RETENTION BASINS LOCATED WITHIN LAS SENDAS ADDENDUM III
1402          KM   FOR BASIN #: 18 & 26
1403          KM        MAXIMUM VOLUME DIVERSION = 16.5 acre-feet
              *      1
1404          DT   BS480    16.5
1405          DI       0   10000
1406          DQ       0   10000
              * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE 37

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


1407          KK   RT480
1408          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
1409          DR   BS480
              * DDM   ***** Preserved *****

1410          KK   SR480
1411          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
1412          KM    16.5 ACRE-FEETx43560/36x3600=5.5cfs
1413          RS       1    STOR       0
1414          SV       0     .01    16.5
1415          SQ       0     5.6     5.6
              * DDM   ***** Preserved *****

1416          KK    C480
1417          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
1418          HC       2
              * DDM   ***** Preserved *****

1419          KK    480C
1420          KM   HYDROGRAPH COMBINATION FOR THE ENTIRE WATERSHED AT THE SALT RIVER
1421          HC       3    2.09
              * DDM   ***** Preserved *****

1422          KK   RR480
1423          KM   ROUTE FLOW FROM SUB-BASIN 480 TO SUB-BASIN 500
1424          RS       1    FLOW      -1
1425          RC    .025    .025    .025    6500     .05
1426          RX       0       1       2      28      58      84      85      86
1427          RY    13.5    13.5    13.5       0       0    13.5    13.5    13.5
              * DDM   ***** Updated *****

1428          KK     500
1429          KM   SUB-BASIN 500
1430          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1431          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
1432          KM     L = 2.77  Kb = .042  Adj. Slope =  286.8
1433          BA    .930
1434          LG    .350    .400   6.000    .170   9.000
1435          UC    .421    .333
1436          UA       0       3       5       8      12      20      43      75      90      96
1437          UA     100
              * DDM   ***** Preserved *****

1438          KK    500C
1439          KM   HYDROGRAPH COMBINATION FOR THE ENTIRE WATERSHED AT THE SALT RIVER
1440          HC       2    2.84
1441          ZZ
```

SCHEMATIC DIAGRAM OF STREAM NETWORK

```
INPUT
 LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW
  NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

  41          10
               V
               V
  51         R10
               .
               .
  57           .          20
               .           .
               .           .
  67         C20............
               .
               .
  70           .          40
               .           .
               .           .
  80           .           .          60
               .           .           .
               .           .           .
  90         60C.......................
               V
               V
  93        SR60
               V
               V
 102         R60
               V
               V
 108        RR60
               .
               .
 114           .          80
               .           .
               .           .
 124         80C............
               V
               V
 127         R80
               .
               .
 133           .         100
               .           .
               .           .
 143        100C............
               V
               V
 146        R100
               .
               .
 152           .         120
               .           .
               .           .
 162        120C............
               V
               V
 165        R120
               .
               .
 171           .         140
               .           .
               .           .
 181           .           .         150
               .           .           V
               .           .           V
 191           .           .        R150
               .           .           .
               .           .           .
 197           .           .           .         160
               .           .           .           .
               .           .           .           .
 207           .           .           .           .         180
               .           .           .           .           .
               .           .           .           .           .
 217        180C.............................................
               .
               .
 220           .         350
               .           V
               .           V
 230           .        350R
               .           .
               .           .
 236           .           .         310
               .           .           .
               .           .           .
 246           .        C310............
               .           V
               .           V
 249           .        R310
               .           .
               .           .
 255           .           .         295
               .           .           .
               .           .           .
 265           .        295C............
               .           V
               .           V
 268           .        R295
               .           .
               .           .
 275           .           .         240
               .           .           .
               .           .           .
 285           .        240C............
               .           .
               .           .
 292           .           .-------->  240S
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```
288          .        D240
             .           .
             .           .
297          .           .          .<-------   240S
295          .           .      RT240
             .           .          V
             .           .          V
298          .           .      SR240
             .           .          .
             .           .          .
306          .        C240............
             .           V
             .           V
309          .        R240
             .           .
             .           .
316          .           .        210
             .           .          V
             .           .          V
326          .           .       R210
             .           .          .
             .           .          .
332          .           .          .        220
             .           .          .          .
             .           .          .          .
342          .        220C......................
             .           .
             .           .
349          .           .------->   220S
345          .        D220
             .           .
             .           .
354          .           .          .<-------   220S
352          .           .      RT220
             .           .          V
             .           .          V
355          .           .      SR220
             .           .          .
             .           .          .
363          .        C220............
             .           V
             .           V
366          .        R220
             .           .
             .           .
373          .           .        190
             .           .          V
             .           .          V
383          .           .       R190
             .           .          .
             .           .          .
389          .           .          .        200
             .           .          .          .
             .           .          .          .
399          .        200C......................
             .           V
             .           V
402          .        R200
             .           .
             .           .
408       C180............
             V
             V
411      SR180
             V
             V
420       R180
             .
             .
426          .        260
             .           .
             .           .
436       260C............
             V
             V
439       R260
             .
             .
445          .        280
             .           .
             .           .
455       280C............
             V
             V
458       R280
             .
             .
464          .        300
             .           .
             .           .
474       300C............
             V
             V
477       R300
             V
             V
483      RR300
             .
             .
489          .        320
             .           .
             .           .
504          .           .------->   BS320
499          .        D320
             .           .
             .           .
509          .           .          .<-------   BS320
507          .           .      RT320
             .           .          V
             .           .          V
510          .           .      SR320
             .           .          .
             .           .          .
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516     C320.......................
          .
519       .        340
          .         .
          .         .
534       .         .-------->  BS340
529       .       D340
          .         .
          .         .
539       .         .         .<-------  BS340
537       .         .     RT340
          .         .        V
          .         .        V
540       .         .     SR340
          .         .         .
          .         .         .
546     C340.......................
          .
549       .        355
          .         V
          .         V
559       .       R355
          .         .
          .         .
565       .         .       370
          .         .        V
          .         .        V
575       .         .      R370
          .         .         .
          .         .         .
581       .         .         .        360
          .         .         .         .
          .         .         .         .
595       .         .         .         .-------->  BS360
591       .         .         .       D360
          .         .         .         .
          .         .         .         .
600       .         .         .         .         .<-------  BS360
598       .         .         .         .     RT360
          .         .         .         .        V
          .         .         .         .        V
601       .         .         .         .     SR360
          .         .         .         .         .
          .         .         .         .         .
607     360C.......................................
          .
610       .        395
          .         V
          .         V
620       .       R395
          .         .
          .         .
626       .         .       380
          .         .         .
          .         .         .
640       .         .         .-------->  BS380
636       .         .      D380
          .         .         .
          .         .         .
645       .         .         .         .<-------  BS380
643       .         .         .      RT380
          .         .         .         V
          .         .         .         V
646       .         .         .      SR380
          .         .         .         .
          .         .         .         .
652     380C.................................
          .
655       .        390
          .         .
          .         .
669       .         .-------->  BS390
665       .       D390
          .         .
          .         .
674       .         .         .<-------  BS390
672       .         .     RT390
          .         .        V
          .         .        V
675       .         .     SR390
          .         .         .
          .         .         .
681       .       390C............
          .         V
          .         V
684       .      RR390
          .         .
          .         .
690       .         .       400
          .         .         .
          .         .         .
704       .         .         .-------->  BS400
700       .         .      D400
          .         .         .
          .         .         .
709       .         .         .         .<-------  BS400
707       .         .         .      RT400
          .         .         .         V
          .         .         .         V
710       .         .         .      SR400
          .         .         .         .
          .         .         .         .
716       .         .      C400............
          .         .         .
          .         .         .
719     400C.......................
          .
          .
722       .        385
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734                 .-------> SF385
732             D385
                   V
                   V
737             385R
                   .
743                .         420
                   .           .
757                .           .-------> BS420
753                .        D420
                   .           .
762                .           .          .<-------  BS420
760                .           .      RT420
                   .           .          V
                   .           .          V
763                .           .      SR420
                   .           .          .
                   .           .          .
769         420C...................................

772             440
                   V
                   V
782             R70
                   .
788                .         441
                   .           .
                   .           .
798             C108............
                   .
803                .-------> SPLIT
801             DIV4
                   V
                   V
806             R108
                   .
812                .         442
                   .           .
                   .           .
822             C67............
                   .
828                .-------> BASIN4
825             DIV6
                   .
833                .           .<-------  BASIN4
831                .      RTDIV6
                   .           V
                   .           V
834                .      RFDIV6
                   .           .
                   .           .
840            CDIV6............
                   .
843                .         443
                   .           .
                   .           .
856                .           .-------> WSH66
853                .        DIV66
                   .           V
                   .           V
859                .        R113
                   .           .
                   .           .
865             C114............
                   .
868                .         444
                   .           V
                   .           V
878                .         R58
                   .           .
                   .           .
884                .           .         445
                   .           .           .
                   .           .           .
894                .        C107............
                   .           V
                   .           V
897                .        R107
                   .           .
                   .           .
905                .           .          .<-------  SPLIT
903                .           .       RTB2
                   .           .          V
                   .           .          V
906                .           .      RSPLIT
                   .           .          .
                   .           .          .
912                .           .          .          446
                   .           .          .            .
                   .           .          .            .
922                .        C109.......................
                   .           .
                   .           .
928                .           .-------> WSH404
925                .        DIV5
                   .           V
                   .           V
931                .        R109
                   .           .
                   .           .
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937                                447
                                    .
949                                 .<-------  WSH404
947                            RT404
                                  V
                                  V
950                             R404
                                    .
956                   C110.......................
                        V
                        V
959                   R110
                        .
965            C115............
                 V
                 V
968            R115
                 .
975                 448
                    .
985                    .        449
                    .           .
995                   C6364............
                        V
                        V
998                   R6364
                        .
1004                   .        450
                       .         .
1014                   .         .        451
                       .         .          .
1026                   .         .          .        .<-------   WSH66
1024                   .         .          .     RT66
                       .         .          .        .
1027                   .         .          .        .        452
                       .         .          .        .          .
1037                   .         .          .     C6465............
                       .         .          .        V
                       .         .          .        V
1040                   .         .          .     R6566
                       .         .          .        .
1046                   .         .          .        .
                      C116.................................
                        V
                        V
1049                 BASIN5
                        V
                        V
1056                  R116
                        .
1062                   .        453
                       .         .
1072                  C117............
                        .
1075           C118............
                 V
                 V
1078           R118
                 .
1087             .-------> BASIN6
1084           DIV7
                 .
1092                 .<-------  BASIN6
1090                RTDIV7
                        V
                        V
1093                RFDIV7
                        .
1099           CDIV7............
                 .
1102                 454
                        .
1112           C119............
                 V
                 V
1115           R454
                 .
1121                 415
                        .
1133                    .<-------   SF385
1131                 .       RT385
                        V
                        V
1134                 .       RR385
                        .         .
1140           415C........................
                 V
                 V
1143           R415
                 .
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1149          .          .        455
              .          .          .
              .          .          .
1164          .          .          .-------> BS455
1159          .          .       D455
              .          .          .
              .          .          .
1169          .          .          .          .<-------  BS455
1167          .          .          .      RT455
              .          .          .         V
              .          .          .         V
1170          .          .          .      SR455
              .          .          .          .
              .          .          .          .
1176          .          .       C455............
              .          .          .
              .          .          .
1179       455C......................
              V
              V
1182      SR440
              V
              V
1191      RR455
              .
              .
1197          .        456
              .          .
              .          .
1210          .          .-------> BASIN1
1207          .       DIV1
              .          .
              .          .
1216          .          .------->   WA30
1213          .       DIV2
              .          V
              .          V
1219          .       R456
              .          .
              .          .
1225          .          .        457
              .          .          .
              .          .          .
1235          .       C101............
              .          .
              .          .
1241          .          .-------> BASIN2
1238          .       DIV3
              .          .
              .          .
1246          .          .          .<-------  BASIN2
1244          .          .     RTDIV3
              .          .          V
              .          .          V
1247          .          .     RFDIV3
              .          .          .
              .          .          .
1253          .      CDIV3............
              .          V
              .          V
1256          .       R101
              .          .
              .          .
1262          .          .        458
              .          .          .
              .          .          .
1272          .       C103............
              .          V
              .          V
1275          .       R103
              .          .
              .          .
1283          .          .          .<-------   WA30
1281          .          .       RT30
              .          .          V
              .          .          V
1284          .          .       R30
              .          .          .
              .          .          .
1292          .          .          .          .<-------  BASIN1
1290          .          .          .      RTB1
              .          .          .         V
              .          .          .         V
1293          .          .          .        B1
              .          .          .         V
              .          .          .         V
1300          .          .          .       RB1
              .          .          .          .
              .          .          .          .
1306          .          .       CDIV............
              .          .          .
              .          .          .
1309          .          .          .       459
              .          .          .          .
              .          .          .          .
1319          .          .       C52............
              .          .          V
              .          .          V
1322          .          .       R52
              .          .          .
              .          .          .
1328          .          .          .       460
              .          .          .          .
              .          .          .          .
1338          .          .       C102............
              .          .          V
              .          .          V
1341          .          .     BASIN3
              .          .          V
              .          .          V
1348          .          .        R3
              .          .          .
              .          .          .
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```
1354          .          .          .        461
              .          .          .          .
              .          .          .          .
1364          .          .       C104...........
              .          .          .
              .          .          .
1367          .       C106...........
              .          V
              .          V
1370          .       R106
              .          .
              .          .
1376          .          .        462
              .          .          .
              .          .          .
1386          .        C56...........
              .          .
              .          .
1389          .          .        480
              .          .          .
              .          .          .
1404          .          .          .-------->   BS480
1399          .          .       D480
              .          .          .
              .          .          .
1409          .          .          .         .<-------   BS480
1407          .          .          .      RT480
              .          .          .          V
              .          .          .          V
1410          .          .          .      SR480
              .          .          .          .
              .          .          .          .
1416          .          .       C480...........
              .          .          .
              .          .          .
1419       480C.......................
              V
              V
1422      RR480
              .
              .
1428          .        500
              .          .
              .          .
1438       500C...........
```

(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

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

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	10	951.	12.27	114.	31.	15.	.70		
+	ROUTED TO	R10	826.	12.60	114.	31.	15.	.70		
+	HYDROGRAPH AT	20	959.	12.43	128.	32.	16.	1.12		
+	2 COMBINED AT	C20	1635.	12.53	240.	63.	30.	1.82		
+	HYDROGRAPH AT	40	2582.	12.30	252.	66.	32.	2.23		
+	HYDROGRAPH AT	60	1553.	12.40	228.	61.	29.	1.75		
+	3 COMBINED AT	60C	5014.	12.37	708.	188.	90.	5.80		
+	ROUTED TO	SR60	92.	14.47	92.	89.	70.	5.80		
+	ROUTED TO	R60	92.	14.53	92.	89.	70.	5.80		
+	ROUTED TO	RR60	92.	14.63	92.	89.	70.	5.80		
+	HYDROGRAPH AT	80	1868.	12.27	179.	46.	22.	1.48		
+	2 COMBINED AT	80C	1942.	12.27	266.	134.	92.	1.48		
+	ROUTED TO	R80	1919.	12.27	266.	134.	92.	1.48		
+	HYDROGRAPH AT	100	404.	12.20	58.	15.	7.	.48		
+	2 COMBINED AT	100C	2300.	12.27	321.	148.	99.	1.96		
+	ROUTED TO	R100	2292.	12.30	321.	148.	99.	1.96		
+	HYDROGRAPH AT	120	3232.	12.27	326.	88.	42.	2.20		
+	2 COMBINED AT	120C	5469.	12.27	636.	229.	140.	4.16		
+	ROUTED TO	R120	5397.	12.30	636.	229.	140.	4.16		
+	HYDROGRAPH AT	140	632.	12.13	64.	17.	8.	.60		
+	HYDROGRAPH AT	150	135.	13.20	47.	13.	6.	.41		
+	ROUTED TO	R150	132.	13.67	47.	13.	6.	.41		
+	HYDROGRAPH AT	160	217.	12.40	35.	9.	4.	.37		
+	HYDROGRAPH AT	180	785.	12.37	90.	23.	11.	1.00		
+	5 COMBINED AT	180C	6707.	12.30	856.	286.	168.	6.54		
+	HYDROGRAPH AT	350	1151.	12.20	102.	27.	13.	.94		
+	ROUTED TO	350R	1032.	12.37	102.	27.	13.	.94		
+	HYDROGRAPH AT	310	376.	12.33	49.	12.	6.	.56		
+	2 COMBINED AT	C310	1386.	12.37	148.	38.	18.	1.49		
+	ROUTED TO	R310	1279.	12.53	148.	38.	18.	1.49		
+	HYDROGRAPH AT	295	364.	12.30	40.	10.	5.	.38		
+	2 COMBINED AT	295C	1490.	12.53	187.	48.	23.	1.87		
+	ROUTED TO	R295	1461.	12.60	187.	48.	23.	1.87		
+	HYDROGRAPH AT	240	846.	12.33	107.	27.	13.	1.04		
+	2 COMBINED AT	240C	2004.	12.57	291.	75.	36.	2.91		

+	DIVERSION TO	240S	1404.	12.57	120.	30.	14.	2.91
+	HYDROGRAPH AT	D240	600.	12.17	171.	45.	22.	2.91
+	HYDROGRAPH AT	RT240	1404.	12.57	120.	30.	14.	2.91
+	ROUTED TO	SR240	416.	12.93	118.	30.	14.	2.91
+	2 COMBINED AT	C240	1016.	12.93	289.	75.	36.	2.91
+	ROUTED TO	R240	1013.	13.03	289.	75.	36.	2.91
+	HYDROGRAPH AT	210	873.	12.20	82.	22.	10.	.58
+	ROUTED TO	R210	803.	12.30	82.	22.	10.	.58
+	HYDROGRAPH AT	220	1057.	12.17	93.	23.	11.	.69
+	3 COMBINED AT	220C	2201.	12.23	456.	118.	57.	4.18
+	DIVERSION TO	220S	1270.	12.23	112.	28.	14.	4.18
+	HYDROGRAPH AT	D220	932.	12.23	344.	90.	43.	4.18
+	HYDROGRAPH AT	RT220	1270.	12.23	112.	28.	14.	4.18
+	ROUTED TO	SR220	204.	13.10	101.	28.	14.	4.18
+	2 COMBINED AT	C220	1110.	13.03	443.	118.	57.	4.18
+	ROUTED TO	R220	1109.	13.07	443.	118.	57.	4.18
+	HYDROGRAPH AT	190	1403.	12.17	116.	31.	15.	.92
+	ROUTED TO	R190	1272.	12.30	116.	31.	15.	.92
+	HYDROGRAPH AT	200	1399.	12.17	115.	30.	15.	.92
+	3 COMBINED AT	200C	3319.	12.23	662.	177.	85.	6.01
+	ROUTED TO	R200	3289.	12.27	661.	177.	85.	6.01
+	2 COMBINED AT	C180	9781.	12.30	1486.	451.	249.	12.55
+	ROUTED TO	SR180	143.	19.27	143.	142.	117.	12.55
+	ROUTED TO	R180	143.	19.30	143.	142.	117.	12.55
+	HYDROGRAPH AT	260	418.	12.10	43.	12.	6.	.27
+	2 COMBINED AT	260C	528.	12.13	180.	154.	124.	.27
+	ROUTED TO	R260	510.	12.20	180.	154.	123.	.27
+	HYDROGRAPH AT	280	478.	12.10	42.	12.	6.	.30
+	2 COMBINED AT	280C	942.	12.13	220.	164.	129.	.57
+	ROUTED TO	R280	906.	12.20	219.	164.	128.	.57
+	HYDROGRAPH AT	300	835.	12.13	77.	21.	10.	.68
+	2 COMBINED AT	300C	1692.	12.17	292.	182.	138.	1.25
+	ROUTED TO	R300	1647.	12.23	292.	182.	137.	1.25
+	ROUTED TO	RR300	1583.	12.27	292.	182.	137.	1.25
+	HYDROGRAPH AT	320	1040.	12.17	111.	31.	15.	.87
+	DIVERSION TO	BS320	409.	11.93	21.	6.	3.	.87
+	HYDROGRAPH AT	D320	1040.	12.17	96.	25.	12.	.87
+	HYDROGRAPH AT	RT320	409.	11.93	21.	6.	3.	.87

+	ROUTED TO	SR320	4.	4.17	4.	4.	3.	.87
+	3 COMBINED AT	C320	2461.	12.23	390.	211.	152.	2.12
	HYDROGRAPH AT	340	1471.	12.17	186.	55.	26.	1.45
+	DIVERSION TO	BS340	1471.	12.17	104.	28.	14.	1.45
+	HYDROGRAPH AT	D340	1199.	12.33	97.	27.	13.	1.45
+	HYDROGRAPH AT	RT340	1471.	12.17	104.	28.	14.	1.45
+	ROUTED TO	SR340	19.	9.00	19.	19.	14.	1.45
+	3 COMBINED AT	C340	3428.	12.33	500.	255.	177.	3.57
+	HYDROGRAPH AT	355	537.	12.33	73.	19.	9.	.69
+	ROUTED TO	R355	481.	12.67	72.	19.	9.	.69
+	HYDROGRAPH AT	370	588.	12.30	79.	21.	10.	.67
+	ROUTED TO	R370	524.	12.63	79.	21.	10.	.67
+	HYDROGRAPH AT	360	504.	12.23	84.	25.	12.	.67
+	DIVERSION TO	BS360	504.	12.23	53.	14.	7.	.67
+	HYDROGRAPH AT	D360	306.	12.63	38.	11.	5.	.67
+	HYDROGRAPH AT	RT360	504.	12.23	53.	14.	7.	.67
+	ROUTED TO	SR360	10.	9.83	10.	10.	7.	.67
+	5 COMBINED AT	360C	3486.	12.33	688.	311.	207.	5.60
	HYDROGRAPH AT	395	182.	12.23	25.	7.	3.	.20
+	ROUTED TO	R395	157.	12.67	25.	7.	3.	.20
+	HYDROGRAPH AT	380	666.	12.27	98.	26.	13.	.97
+	DIVERSION TO	BS380	666.	12.27	56.	14.	7.	.97
+	HYDROGRAPH AT	D380	472.	12.57	46.	12.	6.	.97
+	HYDROGRAPH AT	RT380	666.	12.27	56.	14.	7.	.97
+	ROUTED TO	SR380	10.	11.33	10.	10.	7.	.97
+	4 COMBINED AT	380C	3488.	12.33	761.	338.	222.	6.77
+	HYDROGRAPH AT	390	463.	12.03	33.	10.	5.	.24
+	DIVERSION TO	BS390	95.	11.73	6.	2.	1.	.24
+	HYDROGRAPH AT	D390	463.	12.03	30.	8.	4.	.24
+	HYDROGRAPH AT	RT390	95.	11.73	6.	2.	1.	.24
+	ROUTED TO	SR390	1.	.90	1.	1.	1.	.24
+	2 COMBINED AT	390C	464.	12.03	31.	9.	5.	.24
+	ROUTED TO	RR390	367.	12.30	31.	9.	5.	.24
+	HYDROGRAPH AT	400	351.	12.23	47.	13.	6.	.62
	DIVERSION TO	BS400	262.	12.10	10.	3.	1.	.62
	HYDROGRAPH AT	D400	351.	12.23	39.	10.	5.	.62
+	HYDROGRAPH AT	RT400	262.	12.10	10.	3.	1.	.62
+	ROUTED TO	SR400	2.	8.70	2.	2.	1.	.62

+ 2 COMBINED AT	C400	353.	12.23	41.	12.	6.	.62
+ 3 COMBINED AT	400C	4137.	12.33	828.	358.	232.	7.63
+ HYDROGRAPH AT	385	782.	12.23	87.	24.	12.	.65
+ DIVERSION TO	SF385	313.	12.23	35.	10.	5.	.65
+ HYDROGRAPH AT	D385	469.	12.23	52.	14.	7.	.65
+ ROUTED TO	385R	404.	12.53	52.	14.	7.	.65
+ HYDROGRAPH AT	420	752.	12.20	92.	26.	12.	.85
+ DIVERSION TO	BS420	269.	11.97	15.	4.	2.	.85
+ HYDROGRAPH AT	D420	752.	12.20	83.	22.	10.	.85
+ HYDROGRAPH AT	RT420	269.	11.97	15.	4.	2.	.85
+ ROUTED TO	SR420	13.	11.03	12.	4.	2.	.85
+ 4 COMBINED AT	420C	4858.	12.33	956.	391.	250.	10.77
+ HYDROGRAPH AT	440	180.	12.03	12.	3.	2.	.08
+ ROUTED TO	R70	176.	12.07	12.	3.	2.	.08
+ HYDROGRAPH AT	441	16.	12.03	1.	0.	0.	.01
+ 2 COMBINED AT	C108	191.	12.07	14.	4.	2.	.09
+ DIVERSION TO	SPLIT	96.	12.07	7.	2.	1.	.09
+ HYDROGRAPH AT	DIV4	96.	12.07	7.	2.	1.	.09
+ ROUTED TO	R108	88.	12.13	7.	2.	1.	.09
+ HYDROGRAPH AT	442	102.	12.10	9.	2.	1.	.10
+ 2 COMBINED AT	C67	187.	12.10	15.	4.	2.	.19
+ DIVERSION TO	BASIN4	115.	12.10	6.	1.	1.	.19
+ HYDROGRAPH AT	DIV6	72.	12.10	10.	3.	1.	.19
+ HYDROGRAPH AT	RTDIV6	115.	12.10	6.	1.	1.	.19
+ ROUTED TO	RFDIV6	1.	11.90	1.	1.	1.	.19
+ 2 COMBINED AT	CDIV6	74.	12.10	10.	4.	2.	.19
+ HYDROGRAPH AT	443	148.	12.07	14.	4.	2.	.08
+ DIVERSION TO	WSH66	78.	11.90	12.	3.	2.	.08
+ HYDROGRAPH AT	DIV66	70.	12.07	3.	1.	0.	.08
+ ROUTED TO	R113	69.	12.07	3.	1.	0.	.08
+ 2 COMBINED AT	C114	140.	12.07	13.	4.	2.	.27
+ HYDROGRAPH AT	444	82.	12.03	5.	1.	1.	.04
+ ROUTED TO	R58	75.	12.07	5.	1.	1.	.04
+ HYDROGRAPH AT	445	296.	12.03	18.	5.	2.	.19
+ 2 COMBINED AT	C107	365.	12.03	22.	6.	3.	.23
+ ROUTED TO	R107	365.	12.07	22.	6.	3.	.23
+ HYDROGRAPH AT	RTB2	96.	12.07	7.	2.	1.	.09
+ ROUTED TO	RSPLIT	95.	12.07	7.	2.	1.	.09

+	HYDROGRAPH AT	446	65.	12.03	6.	2.	1.	.04
+	3 COMBINED AT	C109	520.	12.07	35.	9.	4.	.27
	DIVERSION TO	WSH404	35.	11.73	8.	2.	1.	.27
+	HYDROGRAPH AT	DIV5	485.	12.07	27.	7.	3.	.27
+	ROUTED TO	R109	469.	12.10	27.	7.	3.	.27
+	HYDROGRAPH AT	447	138.	12.07	12.	4.	2.	.09
+	HYDROGRAPH AT	RT404	35.	11.73	8.	2.	1.	.27
+	ROUTED TO	R404	35.	11.90	8.	2.	1.	.27
+	3 COMBINED AT	C110	635.	12.07	46.	13.	6.	.36
+	ROUTED TO	R110	632.	12.10	46.	13.	6.	.36
+	2 COMBINED AT	C115	764.	12.10	59.	17.	8.	.63
+	ROUTED TO	R115	767.	12.10	59.	17.	8.	.63
+	HYDROGRAPH AT	448	88.	12.03	6.	2.	1.	.05
+	HYDROGRAPH AT	449	80.	12.03	5.	1.	1.	.05
+	2 COMBINED AT	C6364	166.	12.03	11.	3.	1.	.09
+	ROUTED TO	R6364	137.	12.17	11.	3.	1.	.09
+	HYDROGRAPH AT	450	61.	12.20	6.	2.	1.	.07
+	HYDROGRAPH AT	451	18.	12.17	2.	1.	0.	.03
	HYDROGRAPH AT	RT66	78.	11.90	12.	3.	2.	.08
+	HYDROGRAPH AT	452	62.	12.03	4.	1.	1.	.04
+	2 COMBINED AT	C6465	140.	12.03	16.	4.	2.	.04
+	ROUTED TO	R6566	135.	12.10	16.	4.	2.	.04
+	4 COMBINED AT	C116	341.	12.17	35.	9.	4.	.23
+	ROUTED TO	BASIN5	152.	12.47	35.	9.	4.	.23
+	ROUTED TO	R116	150.	12.53	35.	9.	4.	.23
+	HYDROGRAPH AT	453	62.	12.10	7.	2.	1.	.06
+	2 COMBINED AT	C117	169.	12.50	41.	11.	5.	.29
+	2 COMBINED AT	C118	852.	12.10	99.	28.	14.	.92
+	ROUTED TO	R118	842.	12.10	99.	28.	14.	.92
+	DIVERSION TO	BASIN6	243.	12.10	10.	2.	1.	.92
+	HYDROGRAPH AT	DIV7	599.	12.10	89.	25.	13.	.92
+	HYDROGRAPH AT	RTDIV7	243.	12.10	10.	2.	1.	.92
+	ROUTED TO	RFDIV7	1.	11.97	1.	1.	1.	.92
+	2 COMBINED AT	CDIV7	600.	12.10	90.	26.	13.	.92
	HYDROGRAPH AT	454	157.	12.17	21.	6.	3.	.18
	2 COMBINED AT	C119	748.	12.13	110.	32.	16.	1.10
+	ROUTED TO	R454	681.	12.40	110.	32.	16.	1.10
+	HYDROGRAPH AT	415	412.	12.17	55.	16.	7.	.45

+	HYDROGRAPH AT	RT385	313.	12.23	35.	10.	5.	.65
+	ROUTED TO	RR385	285.	12.40	35.	10.	5.	.65
+	3 COMBINED AT	415C	1253.	12.37	196.	56.	28.	1.55
+	ROUTED TO	R415	1225.	12.43	196.	56.	28.	1.55
+	HYDROGRAPH AT	455	1346.	12.13	142.	43.	21.	1.11
+	DIVERSION TO	BS455	1346.	12.13	137.	37.	18.	1.11
+	HYDROGRAPH AT	D455	55.	12.77	16.	6.	3.	1.11
+	HYDROGRAPH AT	RT455	1346.	12.13	137.	37.	18.	1.11
+	ROUTED TO	SR455	25.	10.47	25.	25.	18.	1.11
+	2 COMBINED AT	C455	80.	12.77	41.	31.	21.	1.11
+	3 COMBINED AT	455C	5805.	12.37	1160.	467.	294.	13.43
+	ROUTED TO	SR440	788.	13.80	771.	467.	294.	13.43
+	ROUTED TO	RR455	788.	14.10	771.	467.	292.	13.43
+	HYDROGRAPH AT	456	468.	12.07	35.	10.	5.	.26
+	DIVERSION TO	BASIN1	184.	12.07	8.	2.	1.	.26
+	HYDROGRAPH AT	DIV1	284.	12.07	27.	8.	4.	.26
+	DIVERSION TO	WA30	58.	12.07	10.	3.	2.	.26
+	HYDROGRAPH AT	DIV2	226.	12.07	18.	4.	2.	.26
+	ROUTED TO	R456	213.	12.13	18.	4.	2.	.26
+	HYDROGRAPH AT	457	264.	12.07	20.	5.	3.	.19
+	2 COMBINED AT	C101	462.	12.10	38.	10.	5.	.45
+	DIVERSION TO	BASIN2	165.	12.10	7.	2.	1.	.45
+	HYDROGRAPH AT	DIV3	297.	12.10	30.	8.	4.	.45
+	HYDROGRAPH AT	RTDIV3	165.	12.10	7.	2.	1.	.45
+	ROUTED TO	RFDIV3	2.	11.90	2.	2.	1.	.45
+	2 COMBINED AT	CDIV3	299.	12.10	32.	9.	5.	.45
+	ROUTED TO	R101	297.	12.10	32.	9.	5.	.45
+	HYDROGRAPH AT	458	356.	12.03	25.	7.	3.	.19
+	2 COMBINED AT	C103	635.	12.07	56.	16.	8.	.64
+	ROUTED TO	R103	630.	12.07	56.	16.	8.	.64
+	HYDROGRAPH AT	RT30	58.	12.07	10.	3.	2.	.26
+	ROUTED TO	R30	57.	12.10	10.	3.	2.	.26
+	HYDROGRAPH AT	RTB1	184.	12.07	8.	2.	1.	.26
+	ROUTED TO	B1	37.	12.23	8.	2.	1.	.26
	ROUTED TO	RB1	37.	12.30	8.	2.	1.	.26
	2 COMBINED AT	CDIV	86.	12.20	17.	5.	3.	.12
+	HYDROGRAPH AT	459	44.	12.03	3.	1.	0.	.03
+	2 COMBINED AT	C52	113.	12.10	20.	6.	3.	.15

+	ROUTED TO	R52	112.	12.17	20.	6.	3.	.15
+	HYDROGRAPH AT	460	214.	12.07	19.	6.	3.	.14
	2 COMBINED AT	C102	313.	12.07	39.	12.	6.	.29
+	ROUTED TO	BASIN3	71.	12.63	39.	12.	6.	.29
+	ROUTED TO	R3	71.	12.77	39.	12.	6.	.29
+	HYDROGRAPH AT	461	161.	12.10	17.	5.	2.	.12
+	2 COMBINED AT	C104	213.	12.10	55.	17.	8.	.41
+	2 COMBINED AT	C106	835.	12.07	110.	32.	16.	1.05
+	ROUTED TO	R106	797.	12.13	110.	32.	16.	1.05
+	HYDROGRAPH AT	462	538.	12.07	40.	11.	5.	.30
+	2 COMBINED AT	C56	1254.	12.10	149.	42.	21.	1.35
+	HYDROGRAPH AT	480	1050.	12.10	96.	29.	14.	.73
+	DIVERSION TO	BS480	455.	11.90	27.	8.	4.	.73
+	HYDROGRAPH AT	D480	1050.	12.10	78.	21.	10.	.73
+	HYDROGRAPH AT	RT480	455.	11.90	27.	8.	4.	.73
+	ROUTED TO	SR480	6.	3.90	6.	6.	4.	.73
+	2 COMBINED AT	C480	1056.	12.10	84.	27.	14.	.73
+	3 COMBINED AT	480C	2521.	12.10	952.	549.	334.	2.09
	ROUTED TO	RR480	2359.	12.13	949.	549.	334.	2.09
+	HYDROGRAPH AT	500	1073.	12.27	122.	33.	16.	.93
+	2 COMBINED AT	500C	3250.	12.17	1061.	577.	348.	2.84

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

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1****************************************
*                                      *
*   FLOOD HYDROGRAPH PACKAGE  (HEC-1)  *
*             JUN   1998               *
*           VERSION 4.1                *
*                                      *
*  RUN DATE   08MAY00  TIME  10:44:48  *
*                                      *
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*                                      *
*    U.S. ARMY CORPS OF ENGINEERS      *
*    HYDROLOGIC ENGINEERING CENTER     *
*          609 SECOND STREET           *
*       DAVIS, CALIFORNIA 95616        *
*          (916) 756-1104              *
*                                      *
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X     X  XXXXXXX   XXXXX          X
X     X  X        X     X        XX
X     X  X        X              X
XXXXXXX  XXXX     X        XXXXX X
X     X  X        X              X
X     X  X        X     X        X
X     X  XXXXXXX   XXXXX         XXX
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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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1                                   HEC-1 INPUT                                                    PAGE  1

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

  1           ID   EXISTING LAND USE CALCULATIONS WERE BASED ON 1 YR. FROM 11/5/99
  2           ID   FOR LAS SENDAS       AND LANDISCOR JAN.1999 AERIAL PHOTOGPRAPHS
  3           ID
  4           ID   ALL DAMS WERE ANALYZED WITH NO STORAGE BELOW PRINCIPLE SPILLWAY ELEVATIONS
  5           ID
  6           ID   A CONSERVATIVE ESTIMATE WAS USED FOR THE LOCATION OF THE CENTROID FOR
  7           ID   PRECIPITATION VALUES
  8           ID
  9           ID   ALL CHANNEL ROUTING INFORMATION WAS OBTAINED FROM MCFCD SPOOK HILL   SIGNAL
 10           ID   BUTTE        AND BULLDOG FLOODWAY PLANS
 11           ID
 12           ID
 13           ID   PASS MOUNTAIN DIVERSION ALTERNATIVE WITH REDIRECTION OF FLOW FROM NEW
 14           ID   BOUNDARIES FOR SUB-BASINS 350 & 355. ADDITIONAL LEVEE ADDED TO WHAT WAS
 15           ID   SUB-BASINS 300 & 320 WITH 300 NOW BEING RELABELED 295, 300, AND 305.
 16           ID   Offline Basins added to Sub-Basins 300, 305
 17           ID   ANALYSIS PERFORMED BY WOOD/PATEL 05/01/00  BY: MW;  FILE S24CE7.DAT
 18           ID
 19           ID   DDM MCUHP1 SPOOK HILL AMDP - EXISTING CONDITIONS MODEL - 100YR, 24HR STORM
              *DIAGRAM
 20           IT       2                    1500
 21           IO       3
 22           IN      15
 23           JD    3.81    0.01
 24           PC    .000    .002    .005    .008    .011    .014    .017    .020    .023    .026
 25           PC    .029    .032    .035    .038    .041    .044    .048    .052    .056    .060
 26           PC    .064    .068    .072    .076    .080    .085    .090    .095    .100    .105
 27           PC    .110    .115    .120    .126    .133    .140    .147    .155    .163    .172
 28           PC    .181    .191    .203    .218    .236    .257    .283    .387    .663    .707
 29           PC    .735    .758    .776    .791    .804    .815    .825    .834    .842    .849
 30           PC    .856    .863    .869    .875    .881    .887    .893    .898    .903    .908
 31           PC    .913    .918    .922    .926    .930    .934    .938    .942    .946    .950
 32           PC    .953    .956    .959    .962    .965    .968    .971    .974    .977    .980
 33           PC    .983    .986    .989    .992    .995    .998   1.000
 34           JD    3.58   10.00
 35           JD    3.43   30.00
 36           JD    3.28   60.00
 37           JD    3.22   90.00
 38           JD    3.18  120.00
 39           JD    3.14  150.00
 40           JD    3.05  300.00
 41           JD    2.97  500.00
              * DDM   ***** Updated *****

 42           KK      10
 43           KM   SUB-BASIN 10
 44           KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 45           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
 46           KM     L = 2.00  Kb = .044  Adj. Slope =  165.0
 47           BA    .702
 48           LG    .350    .320   7.600    .090  15.000
 49           UC    .421    .302
 50           UA       0       3       5       8      12      20      43      75      90      96
 51           UA     100
              * DDM   ***** Preserved *****
1                                   HEC-1 INPUT                                                    PAGE  2

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

 52           KK     R10
 53           KM   ROUTING OF FLOW FROM SUB-BASIN 10 TO SUB-BASIN 20
 54           RS      10    FLOW      -1
 55           RC    .045    .045    .045   13200    .017
 56           RX       0       1       2      14      34      46      47      48
 57           RY       4       4       4       0       0       4       4       4
              * DDM   ***** Updated *****

 58           KK      20
 59           KM   SUB-BASIN 20
 60           KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 61           KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .993
 62           KM     L = 2.50  Kb = .041  Adj. Slope =   88.0
 63           BA   1.120
 64           LG    .350    .390   5.800    .190   1.000
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 65          UC    .658    .454
 66          UA       0       3       5       8      12      20      43      75      90      96
 67          UA     100
             * DDM   ***** Preserved *****

 68          KK     C20
 69          KM   HYDROGRAPH COMBINATION OF SUB-BASINS 10 AND 20
 70          HC       2
             * DDM   ***** Updated *****

 71          KK      40
 72          KM   SUB-BASIN 40
 73          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 74          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .987
 75          KM     L = 3.08  Kb = .036  Adj. Slope =  189.0
 76          BA   2.233
 77          LG    .340    .340   4.900    .280   5.000
 78          UC    .496    .264
 79          UA       0       3       5       8      12      20      43      75      90      96
 80          UA     100
             * DDM   ***** Updated *****

 81          KK      60
 82          KM   SUB-BASIN 60
 83          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 84          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .990
 85          KM     L = 4.19  Kb = .038  Adj. Slope =  209.6
 86          BA   1.746
 87          LG    .330    .350   5.800    .190   9.000
 88          UC    .596    .477
 89          UA       0       3       5       8      12      20      43      75      90      96
 90          UA     100
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE  3

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


 91          KK     60C
 92          KM   HYDROGRAPH COMBINATION FOR APACHE JUNCTION FRS
             *      1       2
 93          HC       3
             * DDM   ***** Preserved *****

 94          KK    SR60
 95          KM   APACHE JUNCTION FRS AS-BUILT PLANS 12/19/88
 96          KM   OUTLET PIPE=30"RCP; L=136.6'; INLET INV.=1783.5; OUTLET INV.=1783
 97          KM   EMERGENCY SPILLWAY ELEV.=1799.77'; PRINCIPLE SPILLWAY ELEV.=1793.5'
 98          KM   STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 100 ACRE-FEET
 99          RS       1    STOR       0
100          SV       0       1     100     200     300     400
101          SQ       0      71      81      87    91.5      94
102          SE    83.5    93.5      96    97.7      99   99.77
             * DDM   ***** Preserved *****

103          KK     R60
104          KM        ROUTE FLOW THROUGH BULLDOG FLOODWAY FROM APACHE JUNCTION FRS
105          RS       2    FLOW      -1
106          RC    .016    .016    .016    2850    .012
107          RX       0       1       2     2.1     5.6     5.7       6       7
108          RY     3.5     3.5     3.5       0       0     3.5     3.5     3.5
             * DDM   ***** Preserved *****

109          KK    RR60
110          KM   ROUTE FLOW FROM BULLDOG FLOODWAY TO SUB-BASIN 80
111          RS       3    FLOW      -1
112          RC    .016    .016    .016    3500    .005
113          RX       0       1       2     2.1     7.1     7.2       8       9
114          RY     3.5     3.5     3.5       0       0     3.5     3.5     3.5
             * DDM   ***** Updated *****

115          KK      80
116          KM   SUB-BASIN 80
117          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
118          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
119          KM     L = 2.69  Kb = .039  Adj. Slope =  229.8
120          BA   1.475
121          LG    .330    .330   5.600    .210   4.000
122          UC    .433    .259
123          UA       0       3       5       8      12      20      43      75      90      96
124          UA     100
             * DDM   ***** Preserved *****

125          KK     80C
126          KM   HYDROGRAPH COMBINATION FOR FLOW FROM APACHE JUNCTION FRS & SUB-BASIN 80
127          HC       2   1.475
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE  4

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


128          KK     R80
129          KM   ROUTE FLOW FROM SUB-BASIN 80 TO SUB-BASIN 100
130          RS       1    FLOW      -1
131          RC    .025    .016    .025    1200    .003
132          RX       0       2       6     6.1    41.1    41.2    56.2    58.2
133          RY     5.5     4.5     4.5       0       0     4.5     4.5     5.5
             * DDM   ***** Updated *****

134          KK     100
135          KM   SUB-BASIN 100
136          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
137          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
138          KM     L = 1.94  Kb = .046  Adj. Slope =  108.0
139          BA    .484
140          LG    .320    .290   5.100    .260   3.000
141          UC    .533    .473
142          UA       0       5      16      30      65      77      84      90      94      97
143          UA     100
             * DDM   ***** Preserved *****

144          KK    100C
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145          KM   HYDROGRAPH COMBINATION FOR FLOW FROM SUB-BASIN 80 & 100
146          HC       2
             * DDM   ***** Preserved *****

147          KK    R100
148          KM   ROUTE FLOW FROM SUB-BASIN 100 TO SUB-BASIN 120
149          RS       1    FLOW      -1
150          RC    .016    .016    .016     940    .005
151          RX       0       1       2     2.1    52.1    52.2      53      54
152          RY     4.5     4.5     4.5       0       0     4.5     4.5     4.5
             * DDM   ***** Updated *****

153          KK     120
154          KM   SUB-BASIN 120
155          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
156          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .987
157          KM     L = 3.07  Kb = .037  Adj. Slope =  239.0
158          BA   2.202
159          LG    .330    .280   6.800    .130  11.000
160          UC    .429    .226
161          UA       0       3       5       8      12      20      43      75      90      96
162          UA     100
             * DDM   ***** Preserved *****

163          KK    120C
164          KM   HYDROGRAPH COMBINATION FOR FLOW FROM SUB-BASIN 100 & 120
165          HC       2
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE  5

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

166          KK    R120
167          KM   ROUTE FLOW FROM SUB-BASIN 120 TO SIGNAL BUTTE FRS
168          RS       1    FLOW      -1
169          RC    .025    .016    .025    2100    .005
170          RX       0       6      10    10.1    60.1    60.2    74.2    80.2
171          RY       8       5       5       0       0       5       5       8
             * DDM   ***** Updated *****

172          KK     140
173          KM   SUB-BASIN 140
174          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
175          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
176          KM     L = 1.61  Kb = .044  Adj. Slope =  149.0
177          BA    .598
178          LG    .310    .280   4.200    .440   5.000
179          UC    .421    .278
180          UA       0       5      16      30      65      77      84      90      94      97
181          UA     100
             * DDM   ***** Updated *****

182          KK     150
183          KM   SUB-BASIN 150
184          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
185          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
186          KM     L = 1.50  Kb = .047  Adj. Slope =  315.0
187          BA    .408
188          LG    .350    .360   5.100    .260   7.000
189          UC   1.579   1.417
190          UA       0       3       5       8      12      20      43      75      90      96
191          UA     100
             * DDM   ***** Preserved *****

192          KK    R150
193          KM   ROUTING OF FLOW FROM SUB-BASIN 150 THROUGH 160
194          RS      14    FLOW      -1
195          RC    .045    .045    .045   10895    .019
196          RX       0       1       2      14      34      46      47      48
197          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

198          KK     160
199          KM   SUB-BASIN 160
200          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
201          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
202          KM     L = 2.10  Kb = .047  Adj. Slope =  129.0
203          BA    .369
204          LG    .340    .330   4.150    .440   1.000
205          UC    .587    .655
206          UA       0       3       5       8      12      20      43      75      90      96
207          UA     100
             * DDM   ***** Updated *****
1                                        HEC-1 INPUT                                          PAGE  6

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

208          KK     180
209          KM   SUB-BASIN 180
210          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
211          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
212          KM     L = 2.42  Kb = .041  Adj. Slope =  140.0
213          BA   1.000
214          LG    .350    .350   4.150    .430    .000
215          UC    .571    .403
216          UA       0       3       5       8      12      20      43      75      90      96
217          UA     100
             * DDM   ***** Preserved *****

218          KK    180C
219          KM   HYDROGRAPH COMBINATION FOR SIGNAL BUTTE FRS
220          HC       5
             * DDM   ***** Updated *****

221          KK     350
222          KM   SUB-BASIN 350
223          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
224          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
225          KM     L = 2.22  Kb = .042  Adj. Slope =  311.0
226          BA    .935
227          LG    .350    .350   4.600    .330   5.000
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228          UC    .367    .239
229          UA       0       3       5       8      12      20      43      75      90      96
230          UA     100
             * DDM   ***** Preserved *****

231          KK    350R
232          KM   ROUTING OF FLOW FROM SUB-BASIN 350 TO 310
233          RS       5    FLOW      -1
234          RC    .045    .045    .045    5379    .024
235          RX       0       1       2      32     102     132     133     134
236          RY       2       2       2       0       0       2       2       2
             * DDM   ***** Updated *****

237          KK     310
238          KM   SUB-BASIN 310
239          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
240          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
241          KM     L = 2.70  Kb = .045  Adj. Slope =  283.5
242          BA    .555
243          LG    .350    .350   3.910    .480    .000
244          UC    .483    .511
245          UA       0       3       5       8      12      20      43      75      90      96
246          UA     100
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE  7

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

247          KK    C310
248          KM   HYDROGRAPH COMBINATION OF SUB-BASINS 350 & 310
249          HC       2
             * DDM   ***** Preserved *****

250          KK    R310
251          KM   ROUTING OF FLOW FROM SUB-BASIN 310 TO 320
252          RS       5    FLOW      -1
253          RC    .045    .045    .045    4711    .015
254          RX       0       1       2      32     102     132     133     134
255          RY     2.5     2.5     2.5       0       0     2.5     2.5     2.5
             * DDM   ***** Updated *****

256          KK     295
257          KM   SUB-BASIN 295
258          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
259          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
260          KM     L = 1.60  Kb = .047  Adj. Slope =  131.0
261          BA    .380
262          LG    .350    .350   4.900    .280    .000
263          UC    .450    .386
264          UA       0       3       5       8      12      20      43      75      90      96
265          UA     100
             * DDM   ***** Preserved *****

266          KK    295C
267          KM   HYDROGRAPH COMBINATION OF SUB-BASINS 310 & 295
268          HC       2
             * DDM   ***** Preserved *****

269          KK    R295
270          KM   ROUTE FLOW FROM SUB-BASIN 295 TO SUB-BASIN 240
271          KM   ADDITIONAL LEVEE ADDED TO PASS MOUNTAIN DIVERSION
272          RS       2    FLOW      -1
273          RC    .035    .025    .035    1600    .005
274          RX       0      20      40      65      77     147     387     388
275          RY       8       8       2       0       0       2       8       8
             * DDM   ***** Updated *****

276          KK     240
277          KM   SUB-BASIN 240
278          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
279          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .992
280          KM     L = 3.50  Kb = .039  Adj. Slope =  298.6
281          BA   1.398
282          LG    .350    .370   5.200    .240   2.000
283          UC    .471    .361
284          UA       0       3       5       8      12      20      43      75      90      96
285          UA     100
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE  8

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

286          KK    240C
287          KM   HYDROGRAPH COMBINATION OF SUB-BASINS 295 & 240
288          HC       2
             * DDM   ***** Preserved *****

289          KK    R240
290          KM   ROUTE FLOW FROM SUB-BASIN 240 TO SUB-BASIN 220
291          KM   PASS MOUNTAIN DIVERSION
292          RS       2    FLOW      -1
293          RC    .035    .025    .035    1752    .005
294          RX       0      15      30      60      88     558     563     568
295          RY      10      10      10       0       0      10      10      10
             * DDM   ***** Updated *****

296          KK     210
297          KM   SUB-BASIN 210
298          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
299          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
300          KM     L = 1.84  Kb = .045  Adj. Slope =  315.0
301          BA    .583
302          LG    .350    .350   7.000    .120   7.000
303          UC    .321    .232
304          UA       0       3       5       8      12      20      43      75      90      96
305          UA     100
             * DDM   ***** Preserved *****

306          KK    R210
307          KM   ROUTING OF FLOW FROM SUB-BASIN 210 TO SUB-BASIN 220
308          RS       3    FLOW      -1
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309          RC    .045    .045    .045    5484    .024
310          RX       0       1       2      14      29      41      42      43
311          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

312          KK     220
313          KM   SUB-BASIN 220
314          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
315          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
316          KM     L = 1.92  Kb = .043  Adj. Slope =  315.0
317          BA    .725
318          LG    .350    .350   7.000    .120   4.000
319          UC    .317    .209
320          UA       0       3       5       8      12      20      43      75      90      96
321          UA     100
             * DDM   ***** Preserved *****

322          KK    220C
323          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 240 & 220
324          HC       3
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE  9

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

325          KK    R220
326          KM   ROUTE FLOW FROM SUB-BASIN 220 TO SUB-BASIN 200
327          KM   PASS MOUNTAIN DIVERSION
328          RS       1    FLOW      -1
329          RC    .035    .025    .035     632    .005
330          RX       0       5      10      40      70      85      90      95
331          RY      10      10      10       0       0      10      10      10
             * DDM   ***** Updated *****

332          KK     190
333          KM   SUB-BASIN 190
334          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
335          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
336          KM     L = 1.91  Kb = .042  Adj. Slope =  315.0
337          BA    .918
338          LG    .350    .390   5.800    .190   8.000
339          UC    .321    .185
340          UA       0       3       5       8      12      20      43      75      90      96
341          UA     100
             * DDM   ***** Preserved *****

342          KK    R190
343          KM   ROUTING OF FLOW FROM SUB-BASIN 190 TO SUB-BASIN 200
344          RS       4    FLOW      -1
345          RC    .045    .045    .045    6948    .023
346          RX       0       1       2      17      37      52      53      54
347          RY       5       5       5       0       0       5       5       5
             * DDM   ***** Updated *****

348          KK     200
349          KM   SUB-BASIN 200
350          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
351          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
352          KM     L = 1.92  Kb = .045  Adj. Slope =  315.0
353          BA    .535
354          LG    .350    .390   5.700    .200  10.000
355          UC    .338    .267
356          UA       0       3       5       8      12      20      43      75      90      96
357          UA     100
             * DDM   ***** Preserved *****

358          KK    200C
359          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 220 & 200
360          HC       3
             * DDM   ***** Preserved *****

361          KK    R200
362          KM   ROUTE FLOW FROM SUB-BASIN 200 TO SIGNAL BUTTE FRS
363          RS       1    FLOW      -1
364          RC    .035    .025    .035    1300    .005
365          RX       0       1       2      17     117     132     133     134
366          RY       5       5       5       0       0       5       5       5
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 10

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

367          KK    C180
368          KM   HYDROGRAPH COMBINATION FOR SIGNAL BUTTE FRS
             *      1       2
369          HC       2
             * DDM   ***** Preserved *****

370          KK   SR180
371          KM   SIGNAL BUTTE FRS DATED 1/28/85
372          KM   OUTLET PIPE=36"RCP; L= 147';  INLET INV.=1690; OUTLET INV.=1687
373          KM   EMERGENCY SPILLWAY ELEV.=1712.4; PRINCIPLE SPILLWAY ELEV.=1701
374          KM   STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 250 ACRE-FEET
375          RS       1    STOR       0
376          SV       0       1     250     500     750    1060
377          SQ       0   106.5   125.5   137.5     146     160
378          SE      90     101   104.5     107     109   112.4
             * DDM   ***** Preserved *****

379          KK    R180
380          KM   ROUTE FLOW FROM SIGNAL BUTTE FRS TO SUB-BASIN 260
381          RS       2    FLOW      -1
382          RC    .035    .025    .035    1500    .003
383          RX       0       1       2    22.6    38.6    59.2      60      61
384          RY     9.3     9.3     9.3       0       0     9.3     9.3     9.3
             * DDM   ***** Updated *****

385          KK     260
386          KM   SUB-BASIN 260
387          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
388          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
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389          KM     L =  .81  Kb = .049  Adj. Slope =   68.0
390          BA    .267
391          LG    .300    .170   6.800    .160  15.000
392          UC    .363    .215
393          UA       0       5      16      30      65      77      84      90      94      97
394          UA     100
             * DDM   ***** Preserved *****

395          KK    260C
396          KM   HYDROGRAPH COMBINATION FOR OUTFLOW OF SIGNAL BUTTE FRS & SUB-BASIN 260
397          HC       2     .267
             * DDM   ***** Preserved *****

398          KK    R260
399          KM   ROUTE FLOW FROM SUB-BASIN 260 TO SUB-BASIN 280
400          RS       2    FLOW      -1
401          RC    .035    .025    .035    2300    .003
402          RX       0       1       2    23.4    43.4    64.8      65      66
403          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
             * DDM   ***** Updated *****
1                                          HEC-1 INPUT                                                    PAGE 11
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

404          KK     280
405          KM   SUB-BASIN 280
406          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
407          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
408          KM     L =  .77  Kb = .049  Adj. Slope =   84.0
409          BA    .304
410          LG    .300    .250   5.300    .290  15.000
411          UC    .333    .175
412          UA       0       5      16      30      65      77      84      90      94      97
413          UA     100
             * DDM   ***** Preserved *****

414          KK    280C
415          KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 260 & SUB-BASIN 280
416          HC       2
             * DDM   ***** Preserved *****

417          KK    R280
418          KM   ROUTE FLOW FROM SUB-BASIN 280 TO SUB-BASIN 300
419          RS       2    FLOW      -1
420          RC    .035    .025    .035    2500    .003
421          RX       0       1       2    23.4    43.4    64.8      65      66
422          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
             * DDM   ***** Updated *****

423          KK     300
424          KM   SUB-BASIN 300
425          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
426          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
427          KM     L =  .80  Kb = .049  Adj. Slope =  100.0
428          BA    .297
429          LG    .320    .280   4.200    .480  11.000
430          UC    .333    .183
431          UA       0       5      16      30      65      77      84      90      94      97
432          UA     100
             * DDM   ***** Preserved *****

433          KK    C300
434          KM   HYDROGRAPH COMBINATION OF DIVERTED FLOW
435          HC       2
             * DDM   ***** Preserved *****

436          KK    D300
437          KM   DIVERT FLOW INTO OFFLINE BASIN AT SIGNAL BUTTE FLOODWAY TO BE COMBINED
438          KM   LATER WITH BASIN 305 AT END OF SIGNAL BUTTE FLOODWAY
439          DT   DIV300
440          DI       0     300    5000
441          DQ       0       0    4700
             * DDM   ***** Preserved *****
1                                          HEC-1 INPUT                                                    PAGE 12
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

442          KK   RTDIV300
443          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
444          DR   DIV300
             * DDM   ***** Preserved *****

445          KK   SRDIV300
446          KM   RETRIEVE FLOW INTO BASIN AND BLEED OFF WITHIN 36 HOURS
447          KM
448          RS       1    STOR       0
449          SV       0      60
450          SE       0      12
451          SQ       0     300
             * DDM   ***** Preserved *****

452          KK    300C
453          KM   HYDROGRAPH COMBINATION OF DIVERTED FLOW
454          HC       2
             * DDM   ***** Updated *****

455          KK     305
456          KM   SUB-BASIN 305
457          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
458          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
459          KM     L = 1.20  Kb = .047  Adj. Slope =   92.0
460          BA    .377
461          LG    .340    .330   4.450    .380   8.000
462          UC    .438    .298
463          UA       0       3       5       8      12      20      43      75      90      96
464          UA     100
             * DDM   ***** Preserved *****

465          KK    D305
466          KM   DIVERT FLOW INTO OFFLINE BASIN TO BE COMBINED LATER WITH PASS MOUNTAIN
467          KM   DIVERSION FLOW AT END OF SIGNAL BUTTE FLOODWAY
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468          DT    305D
469          DI       0    1000
470          DQ       0    1000
             * DDM   ***** Preserved *****

471          KK   RT305D
472          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
473          DR    305D
             * DDM   ***** Preserved *****

474          KK   SR305D
475          KM   RETRIEVE FLOW INTO BASIN AND BLEED OFF WITHIN 36 HOURS
476          KM
477          RS       1    STOR       0
478          SV       0      25
479          SE       0       6
480          SQ       0     100
             * DDM   ***** Preserved *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

481          KK    305C
482          KM   HYDROGRAPH COMBINATION OF SUB-BASIN 280 & 300
483          HC       3
             * DDM   ***** Preserved *****

484          KK    R305
485          KM   ROUTE FLOW FROM SUB-BASIN 300 TO START OF FLOODWAY CONCRETE CHANNEL
486          RS       2    FLOW      -1
487          RC    .035    .025    .035    2200    .003
488          RX       0       1       2    23.4    55.4    76.8      77      78
489          RY     9.7     9.7     9.7       0       0     9.7     9.7     9.7
             * DDM   ***** Preserved *****

490          KK   RR305
491          KM   CONTINUE TO ROUTE FLOW WITHIN CONCRETE CHANNEL TO SPOOK HILL FRS
492          RS       2    FLOW      -1
493          RC    .016    .016    .016    6050   .0146
494          RX       0       1       2     2.1    16.1    16.2      17      18
495          RY     7.5     7.5     7.5       0       0     7.5     7.5     7.5
             *      1       2
             * DDM   ***** Updated *****

496          KK     320
497          KM   SUB-BASIN 320
498          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
499          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .995
500          KM     L = 1.60  Kb = .042  Adj. Slope =  106.0
501          BA    .870
502          LG    .310    .290   4.500    .380  15.000
503          UC    .450    .240
504          UA       0       5      16      30      65      77      84      90      94      97
505          UA     100
             * DDM   ***** Preserved *****

506          KK    D320
507          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
508          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THREE SUBDIVISIONS
509          KM   SIERRA HEIGHTS       FALCON RIDGE    & MARBLE CREEK
510          KM        MAXIMUM VOLUME DIVERSION = 12.27acre-feet
             *      1
511          DT   BS320   12.27
512          DI       0   10000
513          DQ       0   10000
             * DDM   ***** Preserved *****

514          KK   RT320
515          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
516          DR   BS320
             * DDM   ***** Preserved *****
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LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

517          KK   SR320
518          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
519          KM   12.27 ACRE-FEETx43560/36x3600=4.1cfs
             *      1
520          RS       1    STOR       0
521          SV       0     .01    12.3
522          SQ       0     4.2     4.2
             * DDM   ***** Preserved *****

523          KK    C320
524          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
525          HC       3
             * DDM   ***** Updated *****

526          KK     340
527          KM   SUB-BASIN 340
528          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
529          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .991
530          KM     L = 2.40  Kb = .042  Adj. Slope =  160.0
531          BA   1.449
532          LG    .280    .280   4.150    .520  21.000
533          UC    .512    .287
534          UA       0       5      16      30      65      77      84      90      94      97
535          UA     100
             * DDM   ***** Preserved *****

536          KK    D340
537          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
538          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THREE SUBDIVISIONS
539          KM   GRANDVIEW ESTATES    BOULDER MOUNTAIN & 33% OF MESA HIGHLANDS
540          KM        MAXIMUM VOLUME DIVERSION = 56.0 acre-feet
             *      1
541          DT   BS340      56
542          DI       0   10000
543          DQ       0   10000
             * DDM   ***** Preserved *****
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544          KK   RT340
545          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
546          DR   BS340
             * DDM   ***** Preserved *****

547          KK   SR340
548          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
549          KM    56.0 ACRE-FEETx43560/36x3600=18.8cfs
             *      1
550          RS       1    STOR       0
551          SV       0     .01      56
552          SQ       0    18.9    18.9
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                                    PAGE 15

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

553          KK    C340
554          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
555          HC       3
             * DDM   ***** Updated *****

556          KK     355
557          KM   SUB-BASIN 355
558          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
559          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
560          KM     L = 3.00  Kb = .044  Adj. Slope =  284.0
561          BA    .694
562          LG    .340    .340   4.450    .370   4.000
563          UC    .488    .494
564          UA       0       3       5       8      12      20      43      75      90      96
565          UA     100
             * DDM   ***** Preserved *****

566          KK    R355
567          KM   ROUTING OF FLOW FROM SUB-BASIN 355 TO SUB-BASIN 360
568          RS      10    FLOW      -1
569          RC    .045    .045    .045   11535    .023
570          RX       0       1       2      14      34      46      47      48
571          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

572          KK     370
573          KM   SUB-BASIN 370
574          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
575          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
576          KM     L = 2.90  Kb = .044  Adj. Slope =  294.6
577          BA    .667
578          LG    .340    .320   4.650    .330   9.000
579          UC    .454    .455
580          UA       0       3       5       8      12      20      43      75      90      96
581          UA     100
             * DDM   ***** Preserved *****

582          KK    R370
583          KM   ROUTING OF FLOW FROM SUB-BASIN 370 TO 360
584          RS      10    FLOW      -1
585          RC    .045    .045    .045   11782    .021
586          RX       0       1       2      14      29      41      42      43
587          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

588          KK     360
589          KM   SUB-BASIN 360
590          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
591          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
592          KM     L = 2.10  Kb = .048  Adj. Slope =  124.0
593          BA    .670
594          LG    .260    .270   4.100    .560  20.000
595          UC    .587    .466
596          UA       0       5      16      30      65      77      84      90      94      97
1                                        HEC-1 INPUT                                                    PAGE 16

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

597          UA     100
             * DDM   ***** Preserved *****

598          KK    D360
599          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
600          KM   DETENTION/RETENTION BASINS LOCATED WITHIN 33% OF MESA HIGHLANDS
601          KM        MAXIMUM VOLUME DIVERSION = 28.6 acre-feet
             *      1
602          DT   BS360    28.6
603          DI       0   10000
604          DQ       0   10000
             * DDM   ***** Preserved *****

605          KK   RT360
606          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
607          DR   BS360
             * DDM   ***** Preserved *****

608          KK   SR360
609          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
610          KM    28.6 ACRE-FEETx43560/36x3600=9.6cfs
611          RS       1    STOR       0
612          SV       0     .01    28.6
613          SQ       0     9.6     9.6
             * DDM   ***** Preserved *****

614          KK    360C
615          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
616          HC       5
             * DDM   ***** Updated *****

617          KK     395
618          KM   SUB-BASIN 395
619          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
620          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
621          KM     L = 1.60  Kb = .051  Adj. Slope =  215.8
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622          BA    .198
623          LG    .330    .320   4.900    .300  10.000
624          UC    .383    .468
625          UA      0       3       5       8      12      20      43      75      90      96
626          UA    100
             * DDM   ***** Preserved *****

627          KK    R395
628          KM   ROUTING OF FLOW FROM SUB-BASIN 395 TO SUB-BASIN 380
629          RS      13    FLOW      -1
630          RC    .045    .045    .045   11300    .021
631          RX      0       1       2      11      26      35      36      37
632          RY      4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****
1                                          HEC-1 INPUT                                                    PAGE 17

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

633          KK     380
634          KM   SUB-BASIN 380
635          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
636          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
637          KM     L = 2.20  Kb = .048  Adj. Slope =  114.0
638          BA    .972
639          LG    .300    .310   4.150    .500   7.000
640          UC    .658    .444
641          UA      0       5      16      30      65      77      84      90      94      97
642          UA    100
             * DDM   ***** Preserved *****

643          KK    D380
644          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
645          KM   DETENTION/RETENTION BASINS LOCATED WITHIN 33% OF MESA HIGHLANDS
646          KM        MAXIMUM VOLUME DIVERSION = 28.6 acre-feet
             *      1
647          DT   BS380    28.6
648          DI       0   10000
649          DQ       0   10000
             * DDM   ***** Preserved *****

650          KK   RT380
651          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
652          DR   BS380
             * DDM   ***** Preserved *****

653          KK   SR380
654          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
655          KM    28.6 ACRE-FEETx43560/36x3600=9.6cfs
656          RS       1    STOR       0
657          SV       0     .01    28.6
658          SQ       0     9.6     9.6
             * DDM   ***** Preserved *****

659          KK    380C
660          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
661          HC       4
             * DDM   ***** Updated *****

662          KK     390
663          KM   SUB-BASIN 390
664          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
665          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
666          KM     L =  .70  Kb = .050  Adj. Slope =  299.4
667          BA    .244
668          LG    .300    .250   4.700    .380  18.000
669          UC    .204    .107
670          UA      0       5      16      30      65      77      84      90      94      97
671          UA    100
             * DDM   ***** Preserved *****
1                                          HEC-1 INPUT                                                    PAGE 18

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

672          KK    D390
673          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
674          KM   DETENTION/RETENTION BASINS LOCATED WITHIN THUNDER MOUNTAIN ESTATES
675          KM        MAXIMUM VOLUME DIVERSION  = 3.5 acre-feet
             *      1
676          DT   BS390     3.5
677          DI       0   10000
678          DQ       0   10000
             * DDM   ***** Preserved *****

679          KK   RT390
680          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
681          DR   BS390
             * DDM   ***** Preserved *****

682          KK   SR390
683          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
684          KM     3.5 ACRE-FEETx43560/36x3600=1.2cfs
685          RS       1    STOR       0
686          SV       0     .01     3.5
687          SQ       0     1.2     1.2
             * DDM   ***** Preserved *****

688          KK    390C
689          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
690          HC       2
             * DDM   ***** Preserved *****

691          KK   RR390
692          KM   FROM SUB-BASIN 390 TO SUB-BASIN 400
693          RS       8    FLOW      -1
694          RC    .045    .045    .045    9029    .020
695          RX      0       1       2      14      19      31      32      33
696          RY      4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****

697          KK     400
698          KM   SUB-BASIN 400
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699          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
700          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
701          KM     L = 1.64  Kb = .046  Adj. Slope =  110.0
702          BA    .616
703          LG    .320    .320   3.130    .930   6.000
704          UC    .592    .405
705          UA       0       5      16      30      65      77      84      90      94      97
706          UA     100
             * DDM   ***** Preserved *****

707          KK    D400
708          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
709          KM   DETENTION/RETENTION BASIN LOCATED WITHIN SAGUARO VISTA SUBDIVISION
710          KM        MAXIMUM VOLUME DIVERSION = 5.6 ACRE-FEET
             *      1
711          DT   BS400     5.6
1                                          HEC-1 INPUT                                          PAGE 19

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

712          DI       0   10000
713          DQ       0   10000
             * DDM   ***** Preserved *****

714          KK   RT400
715          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
716          DR   BS400
             * DDM   ***** Preserved *****

717          KK   SR400
718          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
719          KM     5.6 ACRE-FEETx43560/36x3600 = 2 cfs
720          RS       1    STOR       0
721          SV       0     .01     5.6
722          SQ       0       2       2
             * DDM   ***** Preserved *****

723          KK    C400
724          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
725          HC       2
             * DDM   ***** Preserved *****

726          KK    400C
727          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
728          HC       3
             * DDM   ***** Updated *****

729          KK     385
730          KM   SUB-BASIN 385
731          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
732          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
733          KM     L = 2.30  Kb = .044  Adj. Slope =  303.0
734          BA    .647
735          LG    .350    .370   5.600    .210  13.000
736          UC    .375    .311
737          UA       0       3       5       8      12      20      43      75      90      96
738          UA     100
             * DDM   ***** Preserved *****

739          KK    D385
740          KM   DIVERT FLOW INTO SUB-BASINS 415 & 420
741          DT   SF385
742          DI       0   10000
743          DQ       0    4000
             * DDM   ***** Preserved *****

744          KK    385R
745          KM   ROUTING OF FLOW DIVERSION FROM SUB-BASIN 385 INTO SUB-BASIN 420
746          RS       9    FLOW      -1
747          RC    .045    .045    .045   10233    .022
748          RX       0       1       2      14      19      31      32      33
749          RY       4       4       4       0       0       4       4       4
             * DDM   ***** Updated *****
1                                          HEC-1 INPUT                                          PAGE 20

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

750          KK     420
751          KM   SUB-BASIN 420
752          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
753          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .995
754          KM     L = 1.91  Kb = .042  Adj. Slope =  120.0
755          BA    .849
756          LG    .310    .270   3.880    .580  12.000
757          UC    .512    .325
758          UA       0       5      16      30      65      77      84      90      94      97
759          UA     100
             * DDM   ***** Preserved *****

760          KK    D420
761          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
762          KM   DETENTION/RETENTION BASINS LOCATED WITHIN GRAY FOX SUBDIVISION
763          KM        MAXIMUM VOLUME DIVERSION = 8.65 acre-feet
             *      1
764          DT   BS420    8.65
765          DI       0   10000
766          DQ       0   10000
             * DDM   ***** Preserved *****

767          KK   RT420
768          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
769          DR   BS420
             * DDM   ***** Preserved *****

770          KK   SR420
771          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
772          KM   38.55 ACRE-FEETx43560/36x3600=13cfs
773          RS       1    STOR       0
774          SV       0     .01    38.55
775          SQ       0      13      13
             * DDM   ***** Preserved *****
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 776          KK    420C
 777          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
 778          HC       4   10.77
              * DDM   ***** Updated *****

 779          KK     440
 780          KM   SUB-BASIN 440
 781          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 782          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
 783          KM     L =  .40  Kb = .039  Adj. Slope =  315.0
 784          BA    .080
 785          LG    .190    .380   6.400    .140  13.000
 786          UC    .129    .077
 787          UA       0       3       5       8      12      20      43      75      90      96
 788          UA     100
              * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 21

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


 789          KK     R70
 790          KM   ROUTE FLOW FROM SUB-BASIN 440 TO C108
 791          RS       1     FLOW      -1
 792          RC     .05     .035     .05    2250     .08
 793          RX    1000     1025    1050    1070    1075    1095    1120    1145
 794          RY      30     22.9    15.7      10      10    15.7    22.9      30
              * DDM   ***** Updated *****

 795          KK     441
 796          KM   SUB-BASIN 441
 797          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 798          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
 799          KM     L =  .28  Kb = .069  Adj. Slope =  315.0
 800          BA    .010
 801          LG    .300    .250   5.600    .220   5.000
 802          UC    .150    .225
 803          UA       0       5      16      30      65      77      84      90      94      97
 804          UA     100
              * DDM   ***** Preserved *****

 805          KK    C108
 806          KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 440 & 441
 807          HC       2
              * DDM   ***** Preserved *****

 808          KK    DIV4
 809          KM        SPLIT FLOW WITH TWO 42 INCH PIPES TO WEST AND SOUTH
              *      1
 810          DT   SPLIT
 811          DI       0      14      40      82     120     154     180
 812          DQ       0       7      20      41      60      77      90
              * DDM   ***** Preserved *****

 813          KK    R108
 814          KM        ROUTE FLOW FROM SUB-BASIN C108 TO C67
 815          RS       2     FLOW      -1
 816          RC     .05     .035     .05    3200      .1
 817          RX    1000     1025    1050    1070    1075    1095    1120    1145
 818          RY      30     22.9    15.7      10      10    15.7    22.9      30
              * DDM   ***** Updated *****

 819          KK     442
 820          KM   SUB-BASIN 442
 821          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 822          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
 823          KM     L =  .83  Kb = .055  Adj. Slope =  274.2
 824          BA    .100
 825          LG    .300    .270   3.290    .770   5.000
 826          UC    .258    .264
 827          UA       0       5      16      30      65      77      84      90      94      97
 828          UA     100
              * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 22

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


 829          KK     C67
 830          KM   COMBINE FLOW FROM SUB-BASIN 442 & DIV4
 831          HC       2
              * DDM   ***** Preserved *****

 832          KK    DIV6
 833          KM        OFFLINE BASIN WITH 25 FOOT WEIR SET AT 2.5 FEET ABOVE BOTTOM OF CHANNEL
 834          KM        FLOW CONTINUES BEYOND BASIN THROUGH 2-30" PIPES
              *      1
 835          DT  BASIN4
 836          DI       0      10      32      44    79.9   132.5     198   272.9   356.8
 837          DQ       0       0       0       0    23.9    67.5     124   190.9   266.8
              * DDM   ***** Preserved *****

 838          KK  RTDIV6
 839          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
 840          DR  BASIN4
              * DDM   ***** Preserved *****

 841          KK  RFDIV6
 842          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
 843          KM     3.3 ACRE-FEETx43560/36x3600=1.1cfs
              *      1
 844          RS       1     STOR       0
 845          SV       0      .01     3.3
 846          SQ       0      1.1     1.1
              * DDM   ***** Preserved *****

 847          KK   CDIV6
 848          KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
 849          HC       2
              * DDM   ***** Updated *****

 850          KK     443
 851          KM   SUB-BASIN 443
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852          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
853          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
854          KM     L =  .71  Kb = .050  Adj. Slope =  315.0
855          BA    .080
856          LG    .250    .190   8.000    .080  10.000
857          UC    .196    .194
858          UA       0       5      16      30      65      77      84      90      94      97
859          UA     100
             * DDM   ***** Preserved *****

860          KK   DIV66
861          KM        DIVERT FLOW INTO 3 NATURAL WASHES WITH ONE 24" PIPE IN EACH WASH.
862          KM        EACH PIPE CAPACITY BASED ON 4 FEET OF HEAD
863          DT   WSH66
864          DI       0      78     100     200
865          DQ       0      78      78      78
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 23

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

866          KK    R113
867          KM        ROUTE FLOW FROM C113 TO C114
868          RS       1    FLOW      -1
869          RC    .019    .019    .019    1300    .029
870          RX    1000    1004    1008    1012    1018    1022    1026    1030
871          RY      17   15.33   12.67      10      10   12.67   15.33      17
             * DDM   ***** Preserved *****

872          KK    C114
873          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 67 AND C113
874          HC       2
             * DDM   ***** Updated *****

875          KK     444
876          KM   SUB-BASIN 444
877          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
878          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
879          KM     L =  .33  Kb = .034  Adj. Slope =  315.0
880          BA    .040
881          LG    .130    .350   4.450    .320   1.000
882          UC    .112    .084
883          UA       0       3       5       8      12      20      43      75      90      96
884          UA     100
             * DDM   ***** Preserved *****

885          KK     R58
886          KM   ROUTE FLOW FROM SUB-BASIN 444 TO C107
887          RS       1    FLOW      -1
888          RC     .05    .035     .05    2370   .0516
889          RX    1000    1010    1020    1050    1055    1085    1095    1105
890          RY      19      18      17      10      10      17      18      19
             * DDM   ***** Updated *****

891          KK     445
892          KM   SUB-BASIN 445
893          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
894          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
895          KM     L =  .82  Kb = .036  Adj. Slope =  315.0
896          BA    .190
897          LG    .170    .320   3.470    .590   3.000
898          UC    .192    .130
899          UA       0       5      16      30      65      77      84      90      94      97
900          UA     100
             * DDM   ***** Preserved *****

901          KK    C107
902          KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 444 & 445
903          HC       2
             * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                          PAGE 24

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

904          KK    R107
905          KM        ROUTE FLOW FROM C107 TO C109
906          RS       1    FLOW      -1
907          RC     .05    .035     .05     700   .0516
908          RX    1000    1010    1020    1050    1055    1085    1095    1105
909          RY      19      18      17      10      10      17      18      19
             * DDM   ***** Preserved *****

910          KK    RTB2
911          KM        RETRIEVE DIVERTED FLOW FROM BASIN 1
             *      1
912          DR   SPLIT
             * DDM   ***** Preserved *****

913          KK  RSPLIT
914          KM        ROUTE FLOW FROM SPLIT TO C109
915          RS       1    FLOW      -1
916          RC     .05    .035     .05     800     .05
917          RX    1000    1025    1050    1070    1075    1095    1120    1145
918          RY      30    22.9    15.7      10      10    15.7    22.9      30
             * DDM   ***** Updated *****

919          KK     446
920          KM   SUB-BASIN 446
921          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
922          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
923          KM     L =  .46  Kb = .061  Adj. Slope =  303.9
924          BA    .040
925          LG    .270    .250   4.500    .400  19.000
926          UC    .183    .189
927          UA       0       5      16      30      65      77      84      90      94      97
928          UA     100
             * DDM   ***** Preserved *****

929          KK    C109
930          KM        COMBINE HYDROGRAPHS FROM COMBINES C107 AND C108
931          HC       3
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                * DDM   ***** Preserved *****

 932            KK    DIV5
 933            KM        DIVERT FLOW INTO WASHES TOWARDS WEST
 934            KM        DIVERSION THROUGH 36" PIPE WITH 3 FEET OF HEAD
                *      1
 935            DT  WSH404
 936            DI       0    40.7    71.2   121.6     190     276   379.4   500.6
 937            DQ       0      35      35      35      35      35      35      35
                * DDM   ***** Preserved *****

 938            KK    R109
 939            KM        ROUTE FLOW FROM C109 TO C110
 940            RS       1    FLOW      -1
 941            RC    .019    .019    .019    3080     .05
 942            RX    1000    1005    1010    1015    1025    1030    1035    1040
 943            RY   13.75    12.5   11.25      10      10   11.25    12.5   13.75
                * DDM   ***** Updated *****
1                                          HEC-1 INPUT                                                    PAGE 25

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

 944            KK     447
 945            KM   SUB-BASIN 447
 946            KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 947            KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
 948            KM     L =  .49  Kb = .056  Adj. Slope =  221.0
 949            BA    .090
 950            LG    .250    .270   3.350    .870  30.000
 951            UC    .208    .145
 952            UA       0       5      16      30      65      77      84      90      94      97
 953            UA     100
                * DDM   ***** Preserved *****

 954            KK   RT404
 955            KM        RETRIEVE DIVERTED FLOW FOR WASH 109
 956            DR  WSH404
                * DDM   ***** Preserved *****

 957            KK    R404
 958            KM        ROUTE FLOW FROM C110 TO C110
 959            RS       5    FLOW      -1
 960            RC    .019    .019    .019    3540     .03
 961            RX    1000    1012    1016    1020    1025    1029    1033    1045
 962            RY      15      12      11      10      10      11      12      15
                * DDM   ***** Preserved *****

 963            KK    C110
 964            KM   COMBINE HYDROGRAPHS FROM SUB-BASIN 447 AND R404
 965            HC       3
                * DDM   ***** Preserved *****

 966            KK    R110
 967            KM        ROUTE FLOW FROM C110 TO C115
 968            RS       1    FLOW      -1
 969            RC    .019    .019    .019     580   .0291
 970            RX    1000    1012    1016    1020    1035    1039    1043    1055
 971            RY      15      12      11      10      10      11      12      15
                * DDM   ***** Preserved *****

 972            KK    C115
 973            KM        COMBINE HYDROGRAPHS FROM C114 AND C110
 974            HC       2
                * DDM   ***** Preserved *****

 975            KK    R115
 976            KM        ROUTE FLOW FROM C115 TO C119
 977            RS       1    FLOW      -1
 978            RC    .019    .019    .019    2125    .029
 979            RC    .019    .019    .019     580   .0291
 980            RX    1000    1012    1016    1020    1035    1039    1043    1055
 981            RY      15      12      11      10      10      11      12      15
                * DDM   ***** Updated *****
1                                          HEC-1 INPUT                                                    PAGE 26

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

 982            KK     448
 983            KM   SUB-BASIN 448
 984            KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 985            KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
 986            KM     L =  .36  Kb = .042  Adj. Slope =  315.0
 987            BA    .045
 988            LG    .170    .310   4.200    .390  11.000
 989            UC    .133    .102
 990            UA       0       5      16      30      65      77      84      90      94      97
 991            UA     100
                * DDM   ***** Updated *****

 992            KK     449
 993            KM   SUB-BASIN 449
 994            KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
 995            KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
 996            KM     L =  .40  Kb = .054  Adj. Slope =  315.0
 997            BA    .050
 998            LG    .260    .280   3.500    .640   6.000
 999            UC    .167    .134
1000            UA       0       5      16      30      65      77      84      90      94      97
1001            UA     100
                * DDM   ***** Preserved *****

1002            KK   C6364
1003            KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 448 & 449
1004            HC       2
                * DDM   ***** Preserved *****

1005            KK   R6364
1006            KM   ROUTE FLOW FROM C116 AND SUB-BASINS 448 AND 449
1007            RS       4    FLOW      -1
1008            RC     .05    .035     .05    4375   .0333
1009            RX    1000    1027    1053    1080    1090    1117    1143    1170
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1010        RY      15   13.33   11.67      10      10   11.67   13.33      15
            * DDM   ***** Updated *****

1011        KK     450
1012        KM   SUB-BASIN 450
1013        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1014        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
1015        KM     L =  .85  Kb = .057  Adj. Slope =  210.5
1016        BA    .070
1017        LG    .340    .350   3.630    .570   4.000
1018        UC    .296    .383
1019        UA       0       3       5       8      12      20      43      75      90      96
1020        UA     100
            * DDM   ***** Updated *****
1                                        HEC-1 INPUT                                                    PAGE 27

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

1021        KK     451
1022        KM   SUB-BASIN 451
1023        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1024        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
1025        KM     L =  .57  Kb = .063  Adj. Slope =  175.0
1026        BA    .025
1027        LG    .340    .340   3.290    .750   3.000
1028        UC    .271    .453
1029        UA       0       3       5       8      12      20      43      75      90      96
1030        UA     100
            * DDM   ***** Preserved *****

1031        KK    RT66
1032        KM        RETRIEVE DIVERTED FLOW FROM SUB-BASIN 66
1033        DR   WSH66
            * DDM   ***** Updated *****

1034        KK     452
1035        KM   SUB-BASIN 452
1036        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1037        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
1038        KM     L =  .43  Kb = .055  Adj. Slope =  315.0
1039        BA    .040
1040        LG    .260    .280   3.700    .550   9.000
1041        UC    .171    .166
1042        UA       0       5      16      30      65      77      84      90      94      97
1043        UA     100
            * DDM   ***** Preserved *****

1044        KK   C6465
1045        KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 443 AND 452
1046        HC       2
            * DDM   ***** Preserved *****

1047        KK   R6566
1048        KM        ROUTE FLOW FROM DIVERSIONS 65 AND 66 TO C116
1049        RS       2    FLOW      -1
1050        RC     .05    .035     .05    2435   .0282
1051        RX    1000    1045    1090    1150    1160    1220    1265    1310
1052        RY      25      23      20      10      10      20      23      25
            * DDM   ***** Preserved *****

1053        KK    C116
1054        KM   COMBINE HYDROGRAPHS FROM SUB-BASINS 450 & 451 AND R6364 & R6465
1055        HC       4
            * DDM   ***** Preserved *****

1056        KK  BASIN5
1057        KM        RESERVOIR WITHIN PARCEL 31      2-48 INCH PIPES AT OUTFALL
1058        KM        BASIN 5 FEET DEEP
1059        RS       1    ELEV       0
1060        SV       0     4.5     9.9
1061        SQ       0      69     190
1062        SE       0     2.5       5
            * DDM   ***** Preserved *****
1                                        HEC-1 INPUT                                                    PAGE 28

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

1063        KK    R116
1064        KM   ROUTE FLOW FROM C116 TO C117
1065        RS       2    FLOW      -1
1066        RC     .05    .035     .05    1300   .0333
1067        RX    1000    1100    1200    1300    1320    1420    1520    1620
1068        RY      13      12      11      10      10      11      12      13
            * DDM   ***** Updated *****

1069        KK     453
1070        KM   SUB-BASIN 453
1071        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1072        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
1073        KM     L =  .58  Kb = .058  Adj. Slope =  138.0
1074        BA    .060
1075        LG    .290    .300   3.290    .820  18.000
1076        UC    .275    .284
1077        UA       0       5      16      30      65      77      84      90      94      97
1078        UA     100
            * DDM   ***** Preserved *****

1079        KK    C117
1080        KM   COMBINE HYDROGRAPHS FROM SUB-BASIN 453 AND R116
1081        HC       2
            * DDM   ***** Preserved *****

1082        KK    C118
1083        KM   COMBINE HYDROGRAPHS FROM R115 AND C117
1084        HC       2
            * DDM   ***** Preserved *****

1085        KK    R118
1086        KM        ROUTE FLOW FROM C118 TO  DIV7
1087        RS       1    FLOW      -1
1088        RC    .019    .019    .019    1500    .024
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1089          RX    1000    1012    1016    1020    1035    1039    1043    1055
1090          RY      15      12      11      10      10      11      12      15
              * DDM   ***** Preserved *****

1091          KK    DIV7
1092          KM        OFFLINE BASIN AT NORTH MOUNTAIN RIDGE   FLOWS ENTER BASIN OVER
1093          KM        30' WEIR SET AT 5.3' ABOVE THE CHANNEL BOTTOM
              *      1
1094          DT  BASIN6
1095          DI       0     363     487     563     645     844
1096          DQ       0       3      47      83     125     244
              * DDM   ***** Preserved *****

1097          KK  RTDIV7
1098          KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
1099          DR  BASIN6
              * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE 29

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


1100          KK  RFDIV7
1101          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
1102          KM     3.6 ACRE-FEETx43560/36x3600=1.2cfs
1103          RS       1    STOR       0
1104          SV       0     .01     3.6
1105          SQ       0     1.2     1.2
              * DDM   ***** Preserved *****

1106          KK   CDIV7
1107          KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
1108          HC       2
              * DDM   ***** Updated *****

1109          KK     454
1110          KM   SUB-BASIN 454
1111          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1112          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1113          KM     L = 1.23  Kb = .051  Adj. Slope =  163.0
1114          BA    .180
1115          LG    .300    .310   3.780    .560  14.000
1116          UC    .379    .395
1117          UA       0       5      16      30      65      77      84      90      94      97
1118          UA     100
              * DDM   ***** Preserved *****

1119          KK    C119
1120          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 454 AND C119
              *      1       2
1121          HC       2
              * DDM   ***** Preserved *****

1122          KK    R454
1123          KM   ROUTE FLOW FROM C119 TO 415C
1124          RS       8    FLOW      -1
1125          RC    .045    .035    .045    6000    .005
1126          RX    1000    1010    1020    1036    1041    1057    1067    1077
1127          RY      15    14.5      14      10      10      14    14.5      15
              * DDM   ***** Updated *****

1128          KK     415
1129          KM   SUB-BASIN 415
1130          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1131          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .997
1132          KM     L = 2.10  Kb = .046  Adj. Slope =  266.0
1133          BA    .448
1134          LG    .310    .270   4.250    .480  15.000
1135          UC    .404    .387
1136          UA       0       5      16      30      65      77      84      90      94      97
1137          UA     100
              * DDM   ***** Preserved *****
1                                    HEC-1 INPUT                                          PAGE 30

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


1138          KK   RT385
1139          KM   RETRIEVE FLOW FROM DIVERSION OF SUB-BASIN 385 INTO SUB-BASIN 415
1140          DR   SF385
              * DDM   ***** Preserved *****

1141          KK   RR385
1142          KM   ROUTING OF SPLIT FLOW FROM SUB-BASIN 385 TO SUB-BASIN 415
1143          RS       5    FLOW      -1
1144          RC    .045    .045    .045    5878    .024
1145          RX       0       1       2      14      19      31      32      33
1146          RY       4       4       4       0       0       4       4       4
              * DDM   ***** Preserved *****

1147          KK    415C
1148          KM   HYDROGRAPH COMBINATION OF SUB-BASINS 415, R454 & SPLIT FLOW FROM 385
1149          HC       3
              * DDM   ***** Preserved *****

1150          KK    R415
1151          KM   ROUTING OF FLOW FROM 415C TO 455C
1152          RS       3    FLOW      -1
1153          RC    .045    .045    .045    3900    .021
1154          RX       0       1       2      14      44      56      57      58
1155          RY       4       4       4       0       0       4       4       4
              * DDM   ***** Updated *****

1156          KK     455
1157          KM   SUB-BASIN 455
1158          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1159          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .993
1160          KM     L = 1.70  Kb = .041  Adj. Slope =  146.0
1161          BA   1.111
1162          LG    .270    .280   3.700    .640  24.000
1163          UC    .421    .204
1164          UA       0       5      16      30      65      77      84      90      94      97
1165          UA     100
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            * DDM   ***** Preserved *****

1166        KK    D455
1167        KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
1168        KM   DETENTION/RETENTION BASINS LOCATED WITHIN LAS SENDAS ADDENDUM III
1169        KM   FOR BASIN #: 30      34      43      47&58
1170        KM        MAXIMUM VOLUME DIVERSION = 74.1 acre-feet
            *      1
1171        DT   BS455    74.1
1172        DI       0   10000
1173        DQ       0   10000
            * DDM   ***** Preserved *****
1
                                        HEC-1 INPUT                                                    PAGE 31

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


1174        KK   RT455
1175        KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
1176        DR   BS455
            * DDM   ***** Preserved *****

1177        KK   SR455
1178        KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
1179        KM    74.1 ACRE-FEETx43560/36x3600=25cfs
1180        RS       1    STOR       0
1181        SV       0     .01    74.1
1182        SQ       0      25      25
            * DDM   ***** Preserved *****

1183        KK    C455
1184        KM   HYDROGRAPH COMBINATION FOR SUB-BASIN 455 AND DIVERTED BASIN STORAGE OF 455
1185        HC       2
            * DDM   ***** Preserved *****

1186        KK    455C
1187        KM  HYDROGRAPH COMBINATION OF 420C, R415 AND C455
            *      1       2
1188        HC       3
            * DDM   ***** Preserved *****

1189        KK   SR440
1190        KM   SPOOK HILL FRS PLANS DATED 6/15/77
1191        KM   OUTLET PIPE=7'x7.5'RCBC; L=70 INLET INV.=1566; OUTLET INV.=1566
1192        KM   EMERGENCY SPILLWAY ELEV.=1582; PRINCIPLE SPILLWAY ELEV.=1577.5
1193        KM   STORAGE VOLUME BELOW PRINCIPLE SPILLWAY FOR SEDIMENT = 200 ACRE-FEET
1194        RS       1    STOR       0
1195        SV       0      10     100     300     500     680
1196        SQ       0     640     720     780     825     860
1197        SE      66    77.5      79    80.2    81.2      82
            * DDM   ***** Preserved *****

1198        KK   RR455
1199        KM   ROUTE FLOW FROM SPOOK HILL FRS TO SUB-BASIN 462
1200        RS       9    FLOW      -1
1201        RC    .035    .025    .035    9200    .002
1202        RX       0       1       2      28      58      84      85      86
1203        RY    13.5    13.5    13.5       0       0    13.5    13.5    13.5
            * DDM   ***** Updated *****

1204        KK     456
1205        KM   SUB-BASIN 456
1206        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1207        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
1208        KM     L =  .94  Kb = .045  Adj. Slope =  315.0
1209        BA    .260
1210        LG    .300    .380   5.600    .200  12.000
1211        UC    .217    .139
1212        UA       0       5      16      30      65      77      84      90      94      97
1213        UA     100
            * DDM   ***** Preserved *****
1
                                        HEC-1 INPUT                                                    PAGE 32

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


1214        KK    DIV1
1215        KM        DIVERT FLOW INTO OFFLINE DETENTION BASIN
1216        KM        WEIR FOR BASIN SET AT 4 FEET ABOVE CHANNEL BOTTOM
            *      1
1217        DT  BASIN1
1218        DI       0    11.1   127.9   234.4   577.7   789.9  1025.5  1280.9  1555.7
1219        DQ       0       0       0    47.7     248   381.8   533.6   701.5     884
            * DDM   ***** Preserved *****

1220        KK    DIV2
1221        KM        SPLIT OUT FLOW FOR WASHES THAT FLOW TO THE SOUTH FROM
1222        KM        WASHES THAT DRAIN TO THE WES, SOUTHERN WASHES FED BY 30" & 24" PIPE
1223        DT    WA30
1224        DI       0    11.1   127.9   189.6   329.7     408   491.9   579.4   671.7
1225        DQ       0    11.1    38.4    48.2      63    69.5      76      81      86
            * DDM   ***** Preserved *****

1226        KK    R456
1227        KM        ROUTE FLOW FROM SUB-BASIN 51 TO C101
1228        RS       2    FLOW      -1
1229        RC     .05    .035     .05    3800    .044
1230        RX    1000    1010    1020    1036    1041    1057    1067    1077
1231        RY   14.88   14.44      14      10      10      14   14.44   14.88
            * DDM   ***** Updated *****

1232        KK     457
1233        KM   SUB-BASIN 457
1234        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1235        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1236        KM     L = 1.01  Kb = .045  Adj. Slope =  308.8
1237        BA    .190
1238        LG    .270    .330   3.950    .460   6.000
1239        UC    .237    .195
1240        UA       0       5      16      30      65      77      84      90      94      97
1241        UA     100
            * DDM   ***** Preserved *****
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1242    KK    C101
1243    KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 50 AND 51
1244    HC       2
        * DDM   ***** Preserved *****

1245    KK    DIV3
1246    KM        RESERVOIR AT THE EDGE OF THE PROPERTY   FLOW FROM CHANNEL
1247    KM        DIVERTED  INTO OFFLINE BASIN A 25' WEIR SET AT ELEVATION 1808 FT
        *      1
1248    DT  BASIN2
1249    DI       0      36      70     110     180   313.5     402   500.9
1250    DQ       0       0       0       0       0    67.5     124   190.9
        * DDM   ***** Preserved *****
1
                                        HEC-1 INPUT                                                    PAGE 33
LINE    ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1251    KK  RTDIV3
1252    KM   RETRIEVE FLOW FROM DIVERSION INTO OFFLINE BASIN
1253    DR  BASIN2
        * DDM   ***** Preserved *****

1254    KK  RFDIV3
1255    KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
1256    KM     5.0 ACRE-FEETx43560/36x3600=1.7cfs
1257    RS       1    STOR       0
1258    SV       0     .01       5
1259    SQ       0     1.7     1.7
        * DDM   ***** Preserved *****

1260    KK   CDIV3
1261    KM   HYDROGRAPH COMBINATION FOR OFFLINE BASIN BLEEDOFF
1262    HC       2
        * DDM   ***** Preserved *****

1263    KK    R101
1264    KM        ROUTE FLOW FROM SUBBASIN C101 TO C103
1265    RS       1    FLOW      -1
1266    RC     .05    .035     .05    1450     .05
1267    RX    1000    1010    1020    1036    1041    1057    1067    1077
1268    RY      15    14.5      14      10      10      14    14.5      15
        * DDM   ***** Updated *****

1269    KK     458
1270    KM   SUB-BASIN 458
1271    KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1272    KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1273    KM     L =  .76  Kb = .048  Adj. Slope =  299.0
1274    BA    .190
1275    LG    .290    .330   5.800    .190   6.000
1276    UC    .204    .131
1277    UA       0       5      16      30      65      77      84      90      94      97
1278    UA     100
        * DDM   ***** Preserved *****

1279    KK    C103
1280    KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 55 AND C101
1281    HC       2
        * DDM   ***** Preserved *****

1282    KK    R103
1283    KM        ROUTE FLOW FROM SUBBASIN C103 TO C106
1284    RS       1    FLOW      -1
1285    RC     .05    .035     .05     900     .03
1286    RX    1000    1010    1020    1030    1050    1060    1070    1080
1287    RY   13.16   12.83    12.5      10      10    12.5   12.83   13.16
        * DDM   ***** Preserved *****
1
                                        HEC-1 INPUT                                                    PAGE 34
LINE    ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

1288    KK    RT30
1289    KM        RETRIEVE DIVERTED FLOW FOR WASH BELOW 30 INCH PIPE
1290    DR    WA30
        * DDM   ***** Preserved *****

1291    KK     R30
1292    KM        ROUTE FLOW FROM WASH DIVERSION TO COMBINE C52
1293    RS       1    FLOW      -1
1294    RC     .05    .035     .05    1630     .05
1295    RX    1000    1010    1020    1036    1041    1057    1067    1077
1296    RY      15    14.5      14      10      10      14    14.5      15
        * DDM   ***** Preserved *****

1297    KK    RTB1
1298    KM        RETRIEVE DIVERTED FLOW FROM BASIN 1
        *      1        2
1299    DR  BASIN1
        * DDM   ***** Preserved *****

1300    KK     B1
1301    KM        ROUTE FLOW THROUGH OFFLINE DETENTION BASIN
1302    KM        FLOW OUTLETS THROUGH A 30 INCH OUTLET PIPE
        *      1        2
1303    RS       1    ELEV       0
1304    SV              .7     1.4     2.3     2.7     3.2
1305    SQ       0       5      16      28    32.5      37
1306    SE       0       1       2       3     3.5       4
        * DDM   ***** Preserved *****

1307    KK     RB1
1308    KM        ROUTE FLOW FROM BASIN DIVERSION TO COMBINE C52
1309    RS       2    FLOW      -1
1310    RC     .05    .035     .05    1720     .05
1311    RX    1000    1010    1020    1036    1041    1057    1067    1077
1312    RY      15    14.5      14      10      10      14    14.5      15
        * DDM   ***** Preserved *****

1313    KK    CDIV
1314    KM        COMBINE FLOWS FROM WA30 AND BASIN 1
1315    HC       2     .12
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            * DDM   ***** Updated *****

1316        KK     459
1317        KM   SUB-BASIN 459
1318        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1319        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF 1.000
1320        KM     L =  .35  Kb = .052  Adj. Slope =  251.6
1321        BA    .030
1322        LG    .220    .300   3.330    .710   8.000
1323        UC    .162    .157
1324        UA       0       5      16      30      65      77      84      90      94      97
1325        UA     100
            * DDM   ***** Preserved *****
1                                   HEC-1 INPUT                                          PAGE 35

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


1326        KK     C52
1327        KM        COMBINE FLOWS FROM SUB-BASIN 52 WA30 AND BASIN 1
1328        HC       2
            * DDM   ***** Preserved *****

1329        KK     R52
1330        KM        ROUTE FLOW FROM SUBBASIN 52 TO C102
1331        RS       2    FLOW      -1
1332        RC     .05    .035     .05    2000     .05
1333        RX    1000    1010    1020    1036    1041    1057    1067    1077
1334        RY      15    14.5      14      10      10      14    14.5      15
            * DDM   ***** Updated *****

1335        KK     460
1336        KM   SUB-BASIN 460
1337        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1338        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1339        KM     L =  .62  Kb = .058  Adj. Slope =  194.0
1340        BA    .140
1341        LG    .250    .260   3.740    .690  27.000
1342        UC    .242    .160
1343        UA       0       5      16      30      65      77      84      90      94      97
1344        UA     100
            * DDM   ***** Preserved *****

1345        KK    C102
1346        KM        COMBINE HYDROGRAPHS FROM SUB-BASINS 52 AND 53
1347        HC       2
            * DDM   ***** Preserved *****

1348        KK  BASIN3
1349        KM        RESERVOIR AT CLUBHOUSE LOCATION 1-30 INCH PIPE AT OUTFALL
1350        KM        BOTTOM OF BASIN AT 6 FEET ABOVE 1795 ELEVATION
1351        RS       1    ELEV       0
1352        SA       0       0       0       0     .34    1.59    1.81    1.96    2.13     2.3
            *      0       0       0       0    1.14    3.25    5.52    9.23
1353        SQ       0      22      45    47.4      48      51      57      62      67      73
1354        SE    1795  1797.5    1800  1800.4  1800.5    1801    1802    1803    1804  1805.5
            * DDM   ***** Preserved *****

1355        KK      R3
1356        KM        ROUTE FLOW FROM C102 to C106
1357        RS       4    FLOW      -1
1358        RC     .05     .03     .05    2750   .0375
1359        RX    1000    1010    1020    1052    1086    1118    1128    1138
1360        RY    19.2    18.4      18      10      10      18    18.4    19.2
            * DDM   ***** Updated *****

1361        KK     461
1362        KM   SUB-BASIN 461
1363        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1364        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .999
1365        KM     L =  .83  Kb = .052  Adj. Slope =  181.0
1366        BA    .120
1                                   HEC-1 INPUT                                          PAGE 36

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

1367        LG    .270    .250   4.250    .450  21.000
1368        UC    .271    .250
1369        UA       0       5      16      30      65      77      84      90      94      97
1370        UA     100
            * DDM   ***** Preserved *****

1371        KK    C104
1372        KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 54 AND R102
1373        HC       2
            * DDM   ***** Preserved *****

1374        KK    C106
1375        KM        COMBINE HYDROGRAPHS FROM SUB-BASIN C103 AND C104
1376        HC       2
            * DDM   ***** Preserved *****

1377        KK    R106
1378        KM        ROUTE FLOW FROM C106 TO C49
1379        RS       2    FLOW      -1
1380        RC     .05    .035     .05    3950    .033
1381        RX    1000    1010    1020    1030    1050    1060    1070    1080
1382        RY   13.16   12.83    12.5      10      10    12.5   12.83   13.16
            * DDM   ***** Updated *****

1383        KK     462
1384        KM   SUB-BASIN 462
1385        KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1386        KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .998
1387        KM     L =  .97  Kb = .045  Adj. Slope =  297.7
1388        BA    .301
1389        LG    .300    .330   5.300    .240  12.000
1390        UC    .225    .137
1391        UA       0       5      16      30      65      77      84      90      94      97
1392        UA     100
            * DDM   ***** Preserved *****

1393        KK     C56
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1394          KM        COMBINE HYDROGRAPHS FROM SUB-BASIN 56 AND C106
              *      1        2
1395          HC       2
              * DDM   ***** Updated *****

1396          KK     480
1397          KM   SUB-BASIN 480
1398          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1399          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .996
1400          KM     L = 1.21  Kb = .042  Adj. Slope =  165.0
1401          BA    .731
1402          LG    .270    .270   3.580    .730  27.000
1403          UC    .325    .148
1404          UA       0       5      16      30      65      77      84      90      94      97
1405          UA     100
              * DDM   ***** Preserved *****
1                                          HEC-1 INPUT                                          PAGE 37

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

1406          KK    D480
1407          KM        DIVERT FLOW INTO ONLINE  DETENTION BASIN
1408          KM   DETENTION/RETENTION BASINS LOCATED WITHIN LAS SENDAS ADDENDUM III
1409          KM   FOR BASIN #: 18 & 26
1410          KM        MAXIMUM VOLUME DIVERSION = 16.5 acre-feet
              *      1
1411          DT   BS480    16.5
1412          DI       0   10000
1413          DQ       0   10000
              * DDM   ***** Preserved *****

1414          KK   RT480
1415          KM   RETRIEVE FLOW FROM DIVERSION INTO ONLINE BASIN
1416          DR   BS480
              * DDM   ***** Preserved *****

1417          KK   SR480
1418          KM   RETRIEVE FLOW INTO FICTICIOUS BASIN AND BLEED OFF WITHIN 36 HOURS.
1419          KM    16.5 ACRE-FEETx43560/36x3600=5.5cfs
1420          RS       1    STOR       0
1421          SV       0     .01    16.5
1422          SQ       0     5.6     5.6
              * DDM   ***** Preserved *****

1423          KK    C480
1424          KM   HYDROGRAPH COMBINATION FOR SPOOK HILL FRS
1425          HC       2
              * DDM   ***** Preserved *****

1426          KK    480C
1427          KM   HYDROGRAPH COMBINATION FOR THE ENTIRE WATERSHED AT THE SALT RIVER
1428          HC       3    2.09
              * DDM   ***** Preserved *****

1429          KK   RR480
1430          KM   ROUTE FLOW FROM SUB-BASIN 480 TO SUB-BASIN 500
1431          RS       1    FLOW      -1
1432          RC    .025    .025    .025    6500     .05
1433          RX       0       1       2      28      58      84      85      86
1434          RY    13.5    13.5    13.5       0       0    13.5    13.5    13.5
              * DDM   ***** Updated *****

1435          KK     500
1436          KM   SUB-BASIN 500
1437          KM   24-HOUR SCS TYPE II RAINFALL WAS USED TO FIND TC & R FOR THIS BASIN
1438          KM   THIS BASIN USED RAINFALL REDUCTION FACTOR OF  .994
1439          KM     L = 2.77  Kb = .042  Adj. Slope =  286.8
1440          BA    .930
1441          LG    .350    .400   6.000    .170   9.000
1442          UC    .421    .333
1443          UA       0       3       5       8      12      20      43      75      90      96
1444          UA     100
              * DDM   ***** Preserved *****
1                                          HEC-1 INPUT                                          PAGE 38

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

1445          KK    500C
1446          KM   HYDROGRAPH COMBINATION FOR THE ENTIRE WATERSHED AT THE SALT RIVER
1447          HC       2    2.84
1448          ZZ
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1

SCHEMATIC DIAGRAM OF STREAM NETWORK

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INPUT
 LINE      (V) ROUTING          (--->) DIVERSION OR PUMP FLOW

  NO.      (.) CONNECTOR        (<---) RETURN OF DIVERTED OR PUMPED FLOW

  42          10
               V
               V
  52         R10
               .
               .
  58           .          20
               .           .
               .           .
  68         C20...........
               .
               .
  71           .          40
               .           .
               .           .
  81           .           .          60
               .           .           .
               .           .           .
  91         60C.......................
               V
               V
  94        SR60
               V
               V
 103         R60
               V
               V
 109        RR60
               .
               .
 115           .          80
               .           .
               .           .
 125         80C...........
               V
               V
 128         R80
               .
               .
 134           .         100
               .           .
               .           .
 144        100C...........
               V
               V
 147        R100
               .
               .
 153           .         120
               .           .
               .           .
 163        120C...........
               V
               V
 166        R120
               .
               .
 172           .         140
               .           .
               .           .
 182           .           .         150
               .           .           V
               .           .           V
 192           .           .        R150
               .           .           .
               .           .           .
 198           .           .           .        160
               .           .           .          .
               .           .           .          .
 208           .           .           .          .        180
               .           .           .          .          .
               .           .           .          .          .
 218        180C..............................................
               .
               .
 221           .         350
               .           V
               .           V
 231           .        350R
               .           .
               .           .
 237           .           .         310
               .           .           .
               .           .           .
 247           .        C310...........
               .           V
               .           V
 250           .        R310
               .           .
               .           .
 256           .           .         295
               .           .           .
               .           .           .
 266           .        295C...........
               .           V
               .           V
 269           .        R295
               .           .
               .           .
 276           .           .         240
               .           .           .
               .           .           .
 286           .        240C...........
               .           V
               .           V
 289           .        R240
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296                 210
                     V
306                 V
                   R210
312                                 220
322            220C.......................
                 V
                 V
325            R220
332                 190
                     V
342                 V
                   R190
348                                 200
358            200C.......................
                 V
                 V
361            R200
367       C180............
            V
            V
370      SR180
            V
            V
379       R180
385                 260
395       260C............
            V
            V
398       R260
404                 280
414       280C............
            V
            V
417       R280
423                 300
433       C300............
439                 .------->   DIV30
436       D300
444                 .<-------   DIV30
442            RTDIV
                 V
                 V
445            SRDIV
452       300C............
455                 305
468                 .------->    305D
465            D305
473                 .<-------    305D
471            RT305
                 V
                 V
474            SR305
481       305C........................
            V
            V
484       R305
            V
            V
490      RR305
496                 320
511                 .------->   BS320
506            D320
516                 .<-------   BS320
514            RT320
                 V
                 V
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517          .           .       SR320
             .           .          .
             .           .          .
523     C320.......................
             .
             .
526          .        340
             .          .
             .          .
541          .          .-------->   BS340
536          .       D340
             .          .
             .          .
546          .          .          .<-------   BS340
544          .          .      RT340
             .          .          V
             .          .          V
547          .          .      SR340
             .          .          .
             .          .          .
553     C340.......................
             .
             .
556          .        355
             .          V
             .          V
566          .       R355
             .          .
             .          .
572          .          .        370
             .          .          V
             .          .          V
582          .          .      R370
             .          .          .
             .          .          .
588          .          .          .         360
             .          .          .          .
             .          .          .          .
602          .          .          .          .-------->   BS360
598          .          .          .       D360
             .          .          .          .
             .          .          .          .
607          .          .          .          .          .<-------   BS360
605          .          .          .          .      RT360
             .          .          .          .          V
             .          .          .          .          V
608          .          .          .          .      SR360
             .          .          .          .          .
             .          .          .          .          .
614     360C...............................................
             .
             .
617          .       395
             .         V
             .         V
627          .      R395
             .          .
             .          .
633          .          .        380
             .          .          .
             .          .          .
647          .          .          .-------->   BS380
643          .          .      D380
             .          .          .
             .          .          .
652          .          .          .          .<-------   BS380
650          .          .          .       RT380
             .          .          .          V
             .          .          .          V
653          .          .          .       SR380
             .          .          .          .
             .          .          .          .
659     380C...................................
             .
             .
662          .       390
             .          .
             .          .
676          .          .-------->   BS390
672          .      D390
             .          .
             .          .
681          .          .          .<-------   BS390
679          .          .      RT390
             .          .          V
             .          .          V
682          .          .      SR390
             .          .          .
             .          .          .
688          .      390C............
             .         V
             .         V
691          .     RR390
             .          .
             .          .
697          .          .        400
             .          .          .
             .          .          .
711          .          .          .-------->   BS400
707          .          .      D400
             .          .          .
             .          .          .
716          .          .          .          .<-------   BS400
714          .          .          .       RT400
             .          .          .          V
             .          .          .          V
717          .          .          .       SR400
             .          .          .          .
             .          .          .          .
723          .          .      C400............
             .          .          .
             .          .          .
726     400C.......................
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                .
729             .        385
                .          .
                .          .
741             .          .-------->  SF385
739             .       D385
                .         V
                .         V
744             .       385R
                .          .
                .          .
750             .          .        420
                .          .          .
                .          .          .
764             .          .          .-------->  BS420
760             .          .       D420
                .          .          .
                .          .          .
769             .          .          .          .<--------  BS420
767             .          .          .      RT420
                .          .          .          V
                .          .          .          V
770             .          .          .      SR420
                .          .          .          .
                .          .          .          .
776        420C.............................
                .
                .
779             .        440
                .         V
                .         V
789             .       R70
                .          .
                .          .
795             .          .        441
                .          .          .
                .          .          .
805             .       C108...........
                .          .
                .          .
810             .          .-------->  SPLIT
808             .       DIV4
                .         V
                .         V
813             .       R108
                .          .
                .          .
819             .          .        442
                .          .          .
                .          .          .
829             .        C67...........
                .          .
                .          .
835             .          .-------->  BASIN4
832             .       DIV6
                .          .
                .          .
840             .          .          .<--------  BASIN4
838             .          .     RTDIV6
                .          .          V
                .          .          V
841             .          .     RFDIV6
                .          .          .
                .          .          .
847             .      CDIV6...........
                .          .
                .          .
850             .          .        443
                .          .          .
                .          .          .
863             .          .          .-------->  WSH66
860             .          .      DIV66
                .          .          V
                .          .          V
866             .          .      R113
                .          .          .
                .          .          .
872             .       C114...........
                .          .
                .          .
875             .          .        444
                .          .          V
                .          .          V
885             .          .        R58
                .          .          .
                .          .          .
891             .          .          .        445
                .          .          .          .
                .          .          .          .
901             .          .      C107...........
                .          .          V
                .          .          V
904             .          .      R107
                .          .          .
                .          .          .
912             .          .          .          .<--------  SPLIT
910             .          .          .      RTB2
                .          .          .          V
                .          .          .          V
913             .          .          .     RSPLIT
                .          .          .          .
                .          .          .          .
919             .          .          .          .        446
                .          .          .          .          .
                .          .          .          .          .
929             .          .      C109........................
                .          .          .
                .          .          .
935             .          .          .-------->  WSH404
932             .          .      DIV5
                .          .          V
                .          .          V
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938                R109
                     .
944                  .          447
                     .            .
956                  .            .          .<-------  WSH404
954                  .            .      RT404
                     .            .        V
                     .            .        V
957                  .            .      R404
                     .            .        .
963                R109.......................
                     V
                     V
966                R110
                     .
972            C115............
                 V
                 V
975            R115
                 .
982                448
                     .
992                  .          449
                     .            .
1002               C6364...........
                     V
                     V
1005               R6364
                     .
1011                 .          450
                     .            .
1021                 .            .        451
                     .            .          .
1033                 .            .          .        .<-------   WSH66
1031                 .            .          .     RT66
                     .            .          .        .
1034                 .            .          .        .          452
                     .            .          .        .            .
1044                 .            .          .     C6465...........
                     .            .          .        V
1047                 .            .          .        V
                     .            .          .     R6566
                     .            .          .        .
1053               C116.................................
                     V
                     V
1056             BASIN5
                     V
                     V
1063               R116
                     .
1069                 .          453
                     .            .
1079               C117............
                     .
1082           C118............
                 V
                 V
1085           R118
                 .
1094             .-------> BASIN6
1091           DIV7
                 .
1099             .<-------  BASIN6
1097             RTDIV7
                     V
                     V
1100             RFDIV7
                     .
1106          CDIV7............
                 .
1109               454
                     .
1119           C119............
                 V
                 V
1122           R454
                 .
1128               415
                     .
1140                 .          .<-------   SF385
1138                 .      RT385
                     .          V
                     .          V
1141                 .      RR385
                     .          .
1147           415C.......................
                 V
                 V
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1150          .        R415
              .          .
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1156          .          .        455
              .          .          .
              .          .          .
1171          .          .          .-------->   BS455
1166          .          .       D455
              .          .          .
              .          .          .
1176          .          .          .          .<-------   BS455
1174          .          .          .      RT455
              .          .          .          V
              .          .          .          V
1177          .          .          .      SR455
              .          .          .          .
              .          .          .          .
1183          .          .       C455............
              .          .          .
              .          .          .
1186       455C.......................
              V
              V
1189      SR440
              V
              V
1198      RR455
              .
              .
1204          .         456
              .          .
              .          .
1217          .          .-------->  BASIN1
1214          .        DIV1
              .          .
              .          .
1223          .          .-------->    WA30
1220          .        DIV2
              .          V
              .          V
1226          .        R456
              .          .
              .          .
1232          .          .        457
              .          .          .
              .          .          .
1242          .        C101............
              .          .
              .          .
1248          .          .-------->  BASIN2
1245          .        DIV3
              .          .
              .          .
1253          .          .          .<-------  BASIN2
1251          .          .     RTDIV3
              .          .          V
              .          .          V
1254          .          .     RFDIV3
              .          .          .
              .          .          .
1260          .       CDIV3............
              .          V
              .          V
1263          .        R101
              .          .
              .          .
1269          .          .        458
              .          .          .
              .          .          .
1279          .        C103............
              .          V
              .          V
1282          .        R103
              .          .
              .          .
1290          .          .          .<-------    WA30
1288          .          .       RT30
              .          .          V
              .          .          V
1291          .          .        R30
              .          .          .
              .          .          .
1299          .          .          .          .<-------  BASIN1
1297          .          .          .       RTB1
              .          .          .          V
              .          .          .          V
1300          .          .          .         B1
              .          .          .          V
              .          .          .          V
1307          .          .          .        RB1
              .          .          .          .
              .          .          .          .
1313          .          .       CDIV............
              .          .          .
              .          .          .
1316          .          .          .        459
              .          .          .          .
              .          .          .          .
1326          .          .        C52............
              .          .          V
              .          .          V
1329          .          .        R52
              .          .          .
              .          .          .
1335          .          .          .        460
              .          .          .          .
              .          .          .          .
1345          .          .       C102............
              .          .          V
              .          .          V
1348          .          .     BASIN3
              .          .          V
              .          .          V
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1355          .          .          R3
              .          .           .
              .          .           .
1361          .          .           .        461
              .          .           .          .
              .          .           .          .
1371          .          .       C104............
              .          .           .
              .          .           .
1374          .       C106............
              .          V
              .          V
1377          .       R106
              .          .
              .          .
1383          .          .        462
              .          .           .
              .          .           .
1393          .        C56............
              .          .
              .          .
1396          .          .        480
              .          .           .
              .          .           .
1411          .          .           .------->   BS480
1406          .          .       D480
              .          .           .
              .          .           .
1416          .          .           .          .<-------   BS480
1414          .          .           .      RT480
              .          .           .          V
              .          .           .          V
1417          .          .           .      SR480
              .          .           .          .
              .          .           .          .
1423          .          .       C480............
              .          .           .
              .          .           .
1426       480C........................
              V
              V
1429      RR480
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              .
1435          .        500
              .          .
              .          .
1445       500C............
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(***) RUNOFF ALSO COMPUTED AT THIS LOCATION

WOOD, PATEL & ASSOC., INC.

Civil Engineers, Hydrologists, Land Surveyors

2051 West Northern, Suite 100

Phoenix, AZ 85021

(602) 335-8500 • FAX 335-8580

LETTER OF TRANSMITTAL

DATE: 05/12/00	JOB NO. 98734
ATTENTION: Toby Rogers	
RE: Metro Building B Revised Drawings	

TO: Gromatzky Dupree and Associates

4444 N. 32nd Street, Suite 140

Phoenix, Arizona 85018

WE ARE SENDING YOU ☒ Attached ☐ Under separate cover VIA DELIVERY the following items:

☐ Shop drawings ☐ Prints ☒ Plans ☐ Samples ☐ Specifications
☐ Copy of letter ☐ Change Order ☐ Reports

COPIES	DATE	NO.	DESCRIPTION
1	05/11/00	1-6	Grading & Drainage Plans
1	05/11/00	1-2	Stormwater Management Plans

THESE ARE TRANSMITTED as checked below:

☐ For approval ☐ Approved as submitted ☐ Approved as noted
☒ For your use ☐ As requested ☐ For review and comment

REMARKS:

Toby-

Please find enclosed a reproducible set of the revised Metro Building B drawings for submittal to the City of Phoenix and distribution to contractor, owner, etc.

The estimated City of Phoenix review fee is $3,510 (8 sheets - $405/sheet plus $270 field review)

COPY TO:	SIGNED: Jason Engelhardt, PE

COP.DOC

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

	OPERATION	STATION	PEAK FLOW	TIME OF PEAK	AVERAGE FLOW FOR MAXIMUM PERIOD 6-HOUR	24-HOUR	72-HOUR	BASIN AREA	MAXIMUM STAGE	TIME OF MAX STAGE
+	HYDROGRAPH AT	10	951.	12.27	114.	31.	15.	.70		
+	ROUTED TO	R10	826.	12.60	114.	31.	15.	.70		
+	HYDROGRAPH AT	20	959.	12.43	128.	32.	16.	1.12		
+	2 COMBINED AT	C20	1635.	12.53	240.	63.	30.	1.82		
+	HYDROGRAPH AT	40	2582.	12.30	252.	66.	32.	2.23		
+	HYDROGRAPH AT	60	1553.	12.40	228.	61.	29.	1.75		
+	3 COMBINED AT	60C	5014.	12.37	708.	188.	90.	5.80		
+	ROUTED TO	SR60	92.	14.47	92.	89.	70.	5.80		
+	ROUTED TO	R60	92.	14.53	92.	89.	70.	5.80		
+	ROUTED TO	RR60	92.	14.63	92.	89.	70.	5.80		
+	HYDROGRAPH AT	80	1868.	12.27	179.	46.	22.	1.48		
+	2 COMBINED AT	80C	1942.	12.27	266.	134.	92.	1.48		
+	ROUTED TO	R80	1919.	12.27	266.	134.	92.	1.48		
+	HYDROGRAPH AT	100	404.	12.20	58.	15.	7.	.48		
+	2 COMBINED AT	100C	2300.	12.27	321.	148.	99.	1.96		
+	ROUTED TO	R100	2292.	12.30	321.	148.	99.	1.96		
+	HYDROGRAPH AT	120	3232.	12.27	326.	88.	42.	2.20		
+	2 COMBINED AT	120C	5469.	12.27	636.	229.	140.	4.16		
+	ROUTED TO	R120	5397.	12.30	636.	229.	140.	4.16		
+	HYDROGRAPH AT	140	632.	12.13	64.	17.	8.	.60		
+	HYDROGRAPH AT	150	135.	13.20	47.	13.	6.	.41		
+	ROUTED TO	R150	132.	13.67	47.	13.	6.	.41		
+	HYDROGRAPH AT	160	217.	12.40	35.	9.	4.	.37		
+	HYDROGRAPH AT	180	785.	12.37	90.	23.	11.	1.00		
+	5 COMBINED AT	180C	6707.	12.30	856.	286.	168.	6.54		
+	HYDROGRAPH AT	350	1151.	12.20	102.	27.	13.	.94		
+	ROUTED TO	350R	1032.	12.37	102.	27.	13.	.94		
+	HYDROGRAPH AT	310	376.	12.33	49.	12.	6.	.56		
+	2 COMBINED AT	C310	1386.	12.37	148.	38.	18.	1.49		
+	ROUTED TO	R310	1279.	12.53	148.	38.	18.	1.49		
+	HYDROGRAPH AT	295	364.	12.30	40.	10.	5.	.38		
	2 COMBINED AT	295C	1490.	12.53	187.	48.	23.	1.87		
	ROUTED TO	R295	1461.	12.60	187.	48.	23.	1.87		
+	HYDROGRAPH AT	240	1405.	12.30	155.	39.	19.	1.40		
+	2 COMBINED AT	240C	2233.	12.53	338.	87.	42.	3.27		

+	ROUTED TO	R240	2199.	12.60	338.	87.	42.	3.27
+	HYDROGRAPH AT	210	873.	12.20	82.	22.	10.	.58
+	ROUTED TO	R210	803.	12.30	82.	22.	10.	.58
+	HYDROGRAPH AT	220	1126.	12.17	98.	25.	12.	.73
+	3 COMBINED AT	220C	3099.	12.33	511.	132.	63.	4.58
+	ROUTED TO	R220	3102.	12.33	511.	132.	63.	4.58
+	HYDROGRAPH AT	190	1403.	12.17	116.	31.	15.	.92
+	ROUTED TO	R190	1272.	12.30	116.	31.	15.	.92
+	HYDROGRAPH AT	200	703.	12.20	69.	19.	9.	.54
+	3 COMBINED AT	200C	4862.	12.30	688.	180.	86.	6.03
+	ROUTED TO	R200	4831.	12.33	688.	180.	86.	6.03
+	2 COMBINED AT	C180	11283.	12.30	1511.	453.	250.	12.57
+	ROUTED TO	SR180	144.	17.10	144.	143.	117.	12.57
+	ROUTED TO	R180	144.	17.17	144.	143.	117.	12.57
+	HYDROGRAPH AT	260	418.	12.10	43.	12.	6.	.27
+	2 COMBINED AT	260C	528.	12.13	182.	154.	124.	.27
+	ROUTED TO	R260	510.	12.20	182.	154.	124.	.27
+	HYDROGRAPH AT	280	478.	12.10	42.	12.	6.	.30
+	2 COMBINED AT	280C	942.	12.13	221.	164.	129.	.57
+	ROUTED TO	R280	906.	12.20	221.	164.	129.	.57
+	HYDROGRAPH AT	300	407.	12.10	34.	9.	5.	.30
+	2 COMBINED AT	C300	1242.	12.17	253.	172.	133.	.87
+	DIVERSION TO	DIV30	942.	12.17	69.	17.	8.	.87
+	HYDROGRAPH AT	D300	300.	11.87	184.	155.	125.	.87
+	HYDROGRAPH AT	RTDIV	942.	12.17	69.	17.	8.	.87
+	ROUTED TO	SRDIV	142.	12.60	62.	17.	8.	.87
+	2 COMBINED AT	300C	442.	12.60	245.	172.	133.	.87
+	HYDROGRAPH AT	305	409.	12.27	42.	11.	6.	.38
+	DIVERSION TO	305D	409.	12.27	42.	11.	6.	.38
+	HYDROGRAPH AT	D305	0.	.00	0.	0.	0.	.38
+	HYDROGRAPH AT	RT305	409.	12.27	42.	11.	6.	.38
+	ROUTED TO	SR305	62.	12.93	36.	11.	6.	.38
+	3 COMBINED AT	305C	498.	12.67	279.	183.	138.	1.25
+	ROUTED TO	R305	497.	12.73	279.	183.	138.	1.25
	ROUTED TO	RR305	496.	12.80	279.	183.	137.	1.25
	HYDROGRAPH AT	320	1040.	12.17	111.	31.	15.	.87
+	DIVERSION TO	BS320	409.	11.93	21.	6.	3.	.87
+	HYDROGRAPH AT	D320	1040.	12.17	96.	25.	12.	.87

+	HYDROGRAPH AT	RT320	409.	11.93	21.	6.	3.	.87
+	ROUTED TO	SR320	4.	4.17	4.	4.	3.	.87
+	3 COMBINED AT	C320	1356.	12.17	376.	211.	152.	2.12
+	HYDROGRAPH AT	340	1471.	12.17	186.	55.	26.	1.45
+	DIVERSION TO	BS340	1471.	12.17	104.	28.	14.	1.45
+	HYDROGRAPH AT	D340	1199.	12.33	97.	27.	13.	1.45
+	HYDROGRAPH AT	RT340	1471.	12.17	104.	28.	14.	1.45
+	ROUTED TO	SR340	19.	9.00	19.	19.	14.	1.45
+	3 COMBINED AT	C340	2305.	12.33	488.	256.	177.	3.56
+	HYDROGRAPH AT	355	537.	12.33	73.	19.	9.	.69
+	ROUTED TO	R355	481.	12.67	72.	19.	9.	.69
+	HYDROGRAPH AT	370	588.	12.30	79.	21.	10.	.67
+	ROUTED TO	R370	524.	12.63	79.	21.	10.	.67
+	HYDROGRAPH AT	360	504.	12.23	84.	25.	12.	.67
+	DIVERSION TO	BS360	504.	12.23	53.	14.	7.	.67
+	HYDROGRAPH AT	D360	306.	12.63	38.	11.	5.	.67
+	HYDROGRAPH AT	RT360	504.	12.23	53.	14.	7.	.67
+	ROUTED TO	SR360	10.	9.83	10.	10.	7.	.67
+	5 COMBINED AT	360C	2537.	12.63	675.	312.	207.	5.60
+	HYDROGRAPH AT	395	182.	12.23	25.	7.	3.	.20
+	ROUTED TO	R395	157.	12.67	25.	7.	3.	.20
+	HYDROGRAPH AT	380	666.	12.27	98.	26.	13.	.97
+	DIVERSION TO	BS380	666.	12.27	56.	14.	7.	.97
+	HYDROGRAPH AT	D380	472.	12.57	46.	12.	6.	.97
+	HYDROGRAPH AT	RT380	666.	12.27	56.	14.	7.	.97
+	ROUTED TO	SR380	10.	11.33	10.	10.	7.	.97
+	4 COMBINED AT	380C	3086.	12.63	749.	338.	222.	6.77
+	HYDROGRAPH AT	390	463.	12.03	33.	10.	5.	.24
+	DIVERSION TO	BS390	95.	11.73	6.	2.	1.	.24
+	HYDROGRAPH AT	D390	463.	12.03	30.	8.	4.	.24
+	HYDROGRAPH AT	RT390	95.	11.73	6.	2.	1.	.24
+	ROUTED TO	SR390	1.	.90	1.	1.	1.	.24
+	2 COMBINED AT	390C	464.	12.03	31.	9.	5.	.24
+	ROUTED TO	RR390	367.	12.30	31.	9.	5.	.24
+	HYDROGRAPH AT	400	351.	12.23	47.	13.	6.	.62
+	DIVERSION TO	BS400	262.	12.10	10.	3.	1.	.62
+	HYDROGRAPH AT	D400	351.	12.23	39.	10.	5.	.62
+	HYDROGRAPH AT	RT400	262.	12.10	10.	3.	1.	.62

+	ROUTED TO	SR400	2.	8.70	2.	2.	1.	.62
+	2 COMBINED AT	C400	353.	12.23	41.	12.	6.	.62
+	3 COMBINED AT	400C	3378.	12.63	816.	358.	233.	7.63
+	HYDROGRAPH AT	385	782.	12.23	87.	24.	12.	.65
+	DIVERSION TO	SF385	313.	12.23	35.	10.	5.	.65
+	HYDROGRAPH AT	D385	469.	12.23	52.	14.	7.	.65
+	ROUTED TO	385R	410.	12.50	52.	14.	7.	.65
+	HYDROGRAPH AT	420	752.	12.20	92.	26.	12.	.85
+	DIVERSION TO	BS420	269.	11.97	15.	4.	2.	.85
+	HYDROGRAPH AT	D420	752.	12.20	83.	22.	10.	.85
+	HYDROGRAPH AT	RT420	269.	11.97	15.	4.	2.	.85
+	ROUTED TO	SR420	13.	11.03	12.	4.	2.	.85
+	4 COMBINED AT	420C	3986.	12.60	943.	391.	250.	10.77
+	HYDROGRAPH AT	440	180.	12.03	12.	3.	2.	.08
+	ROUTED TO	R70	176.	12.07	12.	3.	2.	.08
+	HYDROGRAPH AT	441	16.	12.03	1.	0.	0.	.01
+	2 COMBINED AT	C108	191.	12.07	14.	4.	2.	.09
+	DIVERSION TO	SPLIT	96.	12.07	7.	2.	1.	.09
+	HYDROGRAPH AT	DIV4	96.	12.07	7.	2.	1.	.09
+	ROUTED TO	R108	88.	12.13	7.	2.	1.	.09
+	HYDROGRAPH AT	442	102.	12.10	9.	2.	1.	.10
+	2 COMBINED AT	C67	187.	12.10	15.	4.	2.	.19
+	DIVERSION TO	BASIN4	115.	12.10	6.	1.	1.	.19
+	HYDROGRAPH AT	DIV6	72.	12.10	10.	3.	1.	.19
+	HYDROGRAPH AT	RTDIV6	115.	12.10	6.	1.	1.	.19
+	ROUTED TO	RFDIV6	1.	11.90	1.	1.	1.	.19
+	2 COMBINED AT	CDIV6	74.	12.10	10.	4.	2.	.19
+	HYDROGRAPH AT	443	148.	12.07	14.	4.	2.	.08
+	DIVERSION TO	WSH66	78.	11.90	12.	3.	2.	.08
+	HYDROGRAPH AT	DIV66	70.	12.07	3.	1.	0.	.08
+	ROUTED TO	R113	69.	12.07	3.	1.	0.	.08
+	2 COMBINED AT	C114	140.	12.07	13.	4.	2.	.27
+	HYDROGRAPH AT	444	82.	12.03	5.	1.	1.	.04
+	ROUTED TO	R58	75.	12.07	5.	1.	1.	.04
+	HYDROGRAPH AT	445	296.	12.03	18.	5.	2.	.19
+	2 COMBINED AT	C107	365.	12.03	22.	6.	3.	.23
+	ROUTED TO	R107	365.	12.07	22.	6.	3.	.23
+	HYDROGRAPH AT	RTB2	96.	12.07	7.	2.	1.	.09

+	ROUTED TO RSPLIT	95.	12.07	7.	2.	1.	.09
+	HYDROGRAPH AT 446	65.	12.03	6.	2.	1.	.04
	3 COMBINED AT C109	520.	12.07	35.	9.	4.	.27
+	DIVERSION TO WSH404	35.	11.73	8.	2.	1.	.27
+	HYDROGRAPH AT DIV5	485.	12.07	27.	7.	3.	.27
+	ROUTED TO R109	469.	12.10	27.	7.	3.	.27
+	HYDROGRAPH AT 447	138.	12.07	12.	4.	2.	.09
+	HYDROGRAPH AT RT404	35.	11.73	8.	2.	1.	.27
+	ROUTED TO R404	35.	11.90	8.	2.	1.	.27
+	3 COMBINED AT C110	635.	12.07	46.	13.	6.	.36
+	ROUTED TO R110	632.	12.10	46.	13.	6.	.36
+	2 COMBINED AT C115	764.	12.10	59.	17.	8.	.63
+	ROUTED TO R115	767.	12.10	59.	17.	8.	.63
+	HYDROGRAPH AT 448	88.	12.03	6.	2.	1.	.05
+	HYDROGRAPH AT 449	80.	12.03	5.	1.	1.	.05
+	2 COMBINED AT C6364	166.	12.03	11.	3.	1.	.09
+	ROUTED TO R6364	137.	12.17	11.	3.	1.	.09
+	HYDROGRAPH AT 450	61.	12.20	6.	2.	1.	.07
	HYDROGRAPH AT 451	18.	12.17	2.	1.	0.	.03
+	HYDROGRAPH AT RT66	78.	11.90	12.	3.	2.	.08
+	HYDROGRAPH AT 452	62.	12.03	4.	1.	1.	.04
+	2 COMBINED AT C6465	140.	12.03	16.	4.	2.	.04
+	ROUTED TO R6566	135.	12.10	16.	4.	2.	.04
+	4 COMBINED AT C116	341.	12.17	35.	9.	4.	.23
+	ROUTED TO BASIN5	152.	12.47	35.	9.	4.	.23
+	ROUTED TO R116	150.	12.53	35.	9.	4.	.23
+	HYDROGRAPH AT 453	62.	12.10	7.	2.	1.	.06
+	2 COMBINED AT C117	169.	12.50	41.	11.	5.	.29
+	2 COMBINED AT C118	852.	12.10	99.	28.	14.	.92
+	ROUTED TO R118	842.	12.10	99.	28.	14.	.92
+	DIVERSION TO BASIN6	243.	12.10	10.	2.	1.	.92
+	HYDROGRAPH AT DIV7	599.	12.10	89.	25.	13.	.92
+	HYDROGRAPH AT RTDIV7	243.	12.10	10.	2.	1.	.92
+	ROUTED TO RFDIV7	1.	11.97	1.	1.	1.	.92
	2 COMBINED AT CDIV7	600.	12.10	90.	26.	13.	.92
	HYDROGRAPH AT 454	157.	12.17	21.	6.	3.	.18
+	2 COMBINED AT C119	748.	12.13	110.	32.	16.	1.10
+	ROUTED TO R454	681.	12.40	110.	32.	16.	1.10

+	HYDROGRAPH AT	415	412.	12.17	55.	16.	7.	.45
+	HYDROGRAPH AT	RT385	313.	12.23	35.	10.	5.	.65
	ROUTED TO	RR385	285.	12.40	35.	10.	5.	.65
+	3 COMBINED AT	415C	1253.	12.37	196.	56.	28.	1.55
+	ROUTED TO	R415	1225.	12.43	196.	56.	28.	1.55
+	HYDROGRAPH AT	455	1346.	12.13	142.	43.	21.	1.11
+	DIVERSION TO	BS455	1346.	12.13	137.	37.	18.	1.11
+	HYDROGRAPH AT	D455	55.	12.77	16.	6.	3.	1.11
+	HYDROGRAPH AT	RT455	1346.	12.13	137.	37.	18.	1.11
+	ROUTED TO	SR455	25.	10.47	25.	25.	18.	1.11
+	2 COMBINED AT	C455	80.	12.77	41.	31.	21.	1.11
+	3 COMBINED AT	455C	4914.	12.60	1148.	468.	295.	13.43
+	ROUTED TO	SR440	781.	14.00	767.	468.	294.	13.43
+	ROUTED TO	RR455	781.	14.30	766.	468.	292.	13.43
+	HYDROGRAPH AT	456	468.	12.07	35.	10.	5.	.26
+	DIVERSION TO	BASIN1	184.	12.07	8.	2.	1.	.26
+	HYDROGRAPH AT	DIV1	284.	12.07	27.	8.	4.	.26
+	DIVERSION TO	WA30	58.	12.07	10.	3.	2.	.26
	HYDROGRAPH AT	DIV2	226.	12.07	18.	4.	2.	.26
+	ROUTED TO	R456	213.	12.13	18.	4.	2.	.26
+	HYDROGRAPH AT	457	264.	12.07	20.	5.	3.	.19
+	2 COMBINED AT	C101	462.	12.10	38.	10.	5.	.45
+	DIVERSION TO	BASIN2	165.	12.10	7.	2.	1.	.45
+	HYDROGRAPH AT	DIV3	297.	12.10	30.	8.	4.	.45
+	HYDROGRAPH AT	RTDIV3	165.	12.10	7.	2.	1.	.45
+	ROUTED TO	RFDIV3	2.	11.90	2.	2.	1.	.45
+	2 COMBINED AT	CDIV3	299.	12.10	32.	9.	5.	.45
+	ROUTED TO	R101	297.	12.10	32.	9.	5.	.45
+	HYDROGRAPH AT	458	356.	12.03	25.	7.	3.	.19
+	2 COMBINED AT	C103	635.	12.07	56.	16.	8.	.64
+	ROUTED TO	R103	630.	12.07	56.	16.	8.	.64
+	HYDROGRAPH AT	RT30	58.	12.07	10.	3.	2.	.26
+	ROUTED TO	R30	57.	12.10	10.	3.	2.	.26
+	HYDROGRAPH AT	RTB1	184.	12.07	8.	2.	1.	.26
	ROUTED TO	B1	37.	12.23	8.	2.	1.	.26
	ROUTED TO	RB1	37.	12.30	8.	2.	1.	.26
+	2 COMBINED AT	CDIV	86.	12.20	17.	5.	3.	.12
+	HYDROGRAPH AT	459	44.	12.03	3.	1.	0.	.03

+	2 COMBINED AT	C52	113.	12.10	20.	6.	3.	.15
+	ROUTED TO	R52	112.	12.17	20.	6.	3.	.15
+	HYDROGRAPH AT	460	214.	12.07	19.	6.	3.	.14
+	2 COMBINED AT	C102	313.	12.07	39.	12.	6.	.29
+	ROUTED TO	BASIN3	71.	12.63	39.	12.	6.	.29
+	ROUTED TO	R3	71.	12.77	39.	12.	6.	.29
+	HYDROGRAPH AT	461	161.	12.10	17.	5.	2.	.12
+	2 COMBINED AT	C104	213.	12.10	55.	17.	8.	.41
+	2 COMBINED AT	C106	835.	12.07	110.	32.	16.	1.05
+	ROUTED TO	R106	797.	12.13	110.	32.	16.	1.05
+	HYDROGRAPH AT	462	538.	12.07	40.	11.	5.	.30
+	2 COMBINED AT	C56	1254.	12.10	149.	42.	21.	1.35
+	HYDROGRAPH AT	480	1050.	12.10	96.	29.	14.	.73
+	DIVERSION TO	BS480	455.	11.90	27.	8.	4.	.73
+	HYDROGRAPH AT	D480	1050.	12.10	78.	21.	10.	.73
+	HYDROGRAPH AT	RT480	455.	11.90	27.	8.	4.	.73
+	ROUTED TO	SR480	6.	3.90	6.	6.	4.	.73
+	2 COMBINED AT	C480	1056.	12.10	84.	27.	14.	.73
+	3 COMBINED AT	480C	2517.	12.10	945.	549.	335.	2.09
+	ROUTED TO	RR480	2356.	12.13	943.	549.	334.	2.09
+	HYDROGRAPH AT	500	1073.	12.27	122.	33.	16.	.93
+	2 COMBINED AT	500C	3245.	12.17	1055.	577.	349.	2.84

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