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

                                HYDROGRAPH AT STATION     CHANN
                                  FOR PLAN 4, RATIO = 1.00

   PEAK FLOW       TIME                                     MAXIMUM AVERAGE FLOW
                                              6-HR          24-HR         72-HR        24.00-HR
+     (CFS)         (HR)
                               (CFS)
+       177.       12.08                      44.            14.           14.            14.
                             (INCHES)        6.640          8.513         8.513          8.513
                              (AC-FT)          22.            28.           28.            28.

                               CUMULATIVE AREA =       .06 SQ MI

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

                  PLAN  5 INPUT DATA FOR STATION     CHANN ARE SAME AS FOR PLAN  1
                                       COMPUTED MUSKINGUM-CUNGE PARAMETERS
                                              COMPUTATION TIME STEP
                        ELEMENT     ALPHA         M          DT          DX         PEAK     TIME TO      VOLUME      MAXIMUM
                                                                                              PEAK                    CELERITY
                                                            (MIN)       (FT)       (CFS)     (MIN)        (IN)        (FPS)

                          MAIN       2.23        1.46        .91       296.50      203.49    725.57       9.58        10.84

                                              INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL

                          MAIN       2.23        1.46       5.00                   202.45    725.00       9.59

  NTINUITY SUMMARY (AC-FT) - INFLOW= .3119E+02 EXCESS= .0000E+00 OUTFLOW= .3118E+02 BASIN STORAGE= .2252E-01 PERCENT ERROR=     .0

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

                                HYDROGRAPH AT STATION     CHANN
                                  FOR PLAN 5, RATIO = 1.00

   PEAK FLOW       TIME                                     MAXIMUM AVERAGE FLOW
                                              6-HR          24-HR         72-HR        24.00-HR
+     (CFS)         (HR)
                               (CFS)
+       202.       12.08                      48.            16.           16.            16.
                             (INCHES)        7.312          9.586         9.586          9.586
                              (AC-FT)          24.            31.           31.            31.

                               CUMULATIVE AREA =       .06 SQ MI

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

                ***************
                *             *
   83 KK        *         P1  *
                *             *
                ***************

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

   84 KP          PLAN  1 FOR STATION        P1
                                     RUNOFF COMPUTATION 2-YRS STORM IN BASIN

                  SUBBASIN RUNOFF DATA

   85 BA            SUBBASIN CHARACTERISTICS
                         TAREA          .14  SUBBASIN AREA

                    PRECIPITATION DATA
```

90 PH DEPTHS FOR 0-PERCENT HYPOTHETICAL STORM

..... HYDRO-35			..... TP-40					..... TP-49			
5-MIN	15-MIN	60-MIN	2-HR	3-HR	6-HR	12-HR	24-HR	2-DAY	4-DAY	7-DAY	10-DAY
.18	.50	2.40	2.55	2.75	3.30	4.10	4.75	.00	.00	.00	.00

STORM AREA = .14

86 LS SCS LOSS RATE

STRTL	.33	INITIAL ABSTRACTION
CRVNBR	85.76	CURVE NUMBER
RTIMP	.00	PERCENT IMPERVIOUS AREA

87 UD SCS DIMENSIONLESS UNITGRAPH

TLAG	.50	LAG

***

UNIT HYDROGRAPH
32 END-OF-PERIOD ORDINATES

8.	25.	51.	85.	112.	124.	124.	113.	99.	79.
58.	45.	35.	28.	22.	17.	13.	10.	8.	6.
5.	4.	3.	2.	2.	1.	1.	1.	1.	0.
0.	0.								

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

91 KP PLAN 2 FOR STATION P1
RUNOFF COMPUTATION 10-YRS STORM IN BASIN

SUBBASIN RUNOFF DATA

85 BA SUBBASIN CHARACTERISTICS

TAREA	.14	SUBBASIN AREA

PRECIPITATION DATA

93 PH DEPTHS FOR 0-PERCENT HYPOTHETICAL STORM

..... HYDRO-35			..... TP-40					..... TP-49			
5-MIN	15-MIN	60-MIN	2-HR	3-HR	6-HR	12-HR	24-HR	2-DAY	4-DAY	7-DAY	10-DAY
.27	.75	3.35	3.95	4.40	5.40	6.60	7.80	.00	.00	.00	.00

STORM AREA = .14

86 LS SCS LOSS RATE

STRTL	.33	INITIAL ABSTRACTION
CRVNBR	85.76	CURVE NUMBER
RTIMP	.00	PERCENT IMPERVIOUS AREA

87 UD SCS DIMENSIONLESS UNITGRAPH

TLAG	.50	LAG

***

UNIT HYDROGRAPH
32 END-OF-PERIOD ORDINATES

8.	25.	51.	85.	112.	124.	124.	113.	99.	79.
58.	45.	35.	28.	22.	17.	13.	10.	8.	6.
5.	4.	3.	2.	2.	1.	1.	1.	1.	0.
0.	0.								

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

94 KP PLAN 3 FOR STATION P1
RUNOFF COMPUTATION 25-YRS STORM IN BASIN

SUBBASIN RUNOFF DATA

85 BA SUBBASIN CHARACTERISTICS

TAREA	.14	SUBBASIN AREA

PRECIPITATION DATA

96 PH DEPTHS FOR 0-PERCENT HYPOTHETICAL STORM

..... HYDRO-35			..... TP-40					..... TP-49			
5-MIN	15-MIN	60-MIN	2-HR	3-HR	6-HR	12-HR	24-HR	2-DAY	4-DAY	7-DAY	10-DAY
.32	.90	3.62	4.65	5.25	6.50	7.70	9.20	.00	.00	.00	.00

STORM AREA = .14

```
 86 LS          SCS LOSS RATE
                     STRTL          .33  INITIAL ABSTRACTION
                    CRVNBR        85.76  CURVE NUMBER
                     RTIMP          .00  PERCENT IMPERVIOUS AREA

 87 UD          SCS DIMENSIONLESS UNITGRAPH
                     TLAG          .50  LAG

                                                 ***

                                                 UNIT HYDROGRAPH
                                             32 END-OF-PERIOD ORDINATES
                    8.       25.       51.       85.      112.      124.      124.      113.       99.       79.
                   58.       45.       35.       28.       22.       17.       13.       10.        8.        6.
                    5.        4.        3.        2.        2.        1.        1.        1.        1.        0.
                    0.        0.

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

 97 KP          PLAN  4 FOR STATION       P1
                                  RUNOFF COMPUTATION 50-YRS STORM IN BASIN

                SUBBASIN RUNOFF DATA

 85 BA          SUBBASIN CHARACTERISTICS
                     TAREA          .14  SUBBASIN AREA

                PRECIPITATION DATA

 99 PH                                    DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                ..... HYDRO-35 .....   ............... TP-40 ...............   ........... TP-49 ...........
                5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                  .34     .97    4.00    5.30    5.90    7.50    8.70   10.50     .00     .00     .00     .00

                                                STORM AREA =      .14

 36 LS          SCS LOSS RATE
                     STRTL          .33  INITIAL ABSTRACTION
                    CRVNBR        85.76  CURVE NUMBER
                     RTIMP          .00  PERCENT IMPERVIOUS AREA

 87 UD          SCS DIMENSIONLESS UNITGRAPH
                     TLAG          .50  LAG

                                                 ***

                                                 UNIT HYDROGRAPH
                                             32 END-OF-PERIOD ORDINATES
                    8.       25.       51.       85.      112.      124.      124.      113.       99.       79.
                   58.       45.       35.       28.       22.       17.       13.       10.        8.        6.
                    5.        4.        3.        2.        2.        1.        1.        1.        1.        0.
                    0.        0.

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

100 KP          PLAN  5 FOR STATION       P1
                                  RUNOFF COMPUTATION 100-YRS STORM IN BASIN

                SUBBASIN RUNOFF DATA

 85 BA          SUBBASIN CHARACTERISTICS
                     TAREA          .14  SUBBASIN AREA

                PRECIPITATION DATA

102 PH                                   DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                ..... HYDRO-35 .....   ............... TP-40 ...............   ........... TP-49 ...........
                5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                  .39    1.10    4.50    5.65    6.80    8.00    9.80   11.60     .00     .00     .00     .00

                                                STORM AREA =      .14

 86 LS          SCS LOSS RATE
                     STRTL          .33  INITIAL ABSTRACTION
                    CRVNBR        85.76  CURVE NUMBER
                     RTIMP          .00  PERCENT IMPERVIOUS AREA

 87 UD          SCS DIMENSIONLESS UNITGRAPH
                     TLAG          .50  LAG
```

***

UNIT HYDROGRAPH
32 END-OF-PERIOD ORDINATES

8.	25.	51.	85.	112.	124.	124.	113.	99.	79.
58.	45.	35.	28.	22.	17.	13.	10.	8.	6.
5.	4.	3.	2.	2.	1.	1.	1.	1.	0.
0.	0.								

*** ***

103 KK COMB3

104 HC HYDROGRAPH COMBINATION
ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

***

*** ***

105 KK CHANN

06 KO OUTPUT CONTROL VARIABLES

IPRNT	3	PRINT CONTROL
IPLOT	0	PLOT CONTROL
QSCAL	0.	HYDROGRAPH PLOT SCALE
IPNCH	0	PUNCH COMPUTED HYDROGRAPH
IOUT	21	SAVE HYDROGRAPH ON THIS UNIT
ISAV1	1	FIRST ORDINATE PUNCHED OR SAVED
ISAV2	289	LAST ORDINATE PUNCHED OR SAVED
TIMINT	.083	TIME INTERVAL IN HOURS

HYDROGRAPH ROUTING DATA

107 RD MUSKINGUM-CUNGE CHANNEL ROUTING

L	948.	CHANNEL LENGTH
S	.0050	SLOPE
N	.013	CHANNEL ROUGHNESS COEFFICIENT
CA	.00	CONTRIBUTING AREA
SHAPE	TRAP	CHANNEL SHAPE
WD	12.00	BOTTOM WIDTH OR DIAMETER
Z	2.00	SIDE SLOPE

***

COMPUTED MUSKINGUM-CUNGE PARAMETERS
COMPUTATION TIME STEP

ELEMENT	ALPHA	M	DT (MIN)	DX (FT)	PEAK (CFS)	TIME TO PEAK (MIN)	VOLUME (IN)	MAXIMUM CELERITY (FPS)
MAIN	2.04	1.46	1.49	474.00	231.51	751.80	3.15	10.59

INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL

MAIN	2.04	1.46	5.00		229.73	755.00	3.15	

'NTINUITY SUMMARY (AC-FT) - INFLOW= .3377E+02 EXCESS= .0000E+00 OUTFLOW= .3375E+02 BASIN STORAGE= .4165E-01 PERCENT ERROR= .0

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

HYDROGRAPH AT STATION CHANN
FOR PLAN 1, RATIO = 1.00

+	PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.00-HR
			(CFS)				
+	230.	12.58		55.	17.	17.	17.
			(INCHES)	2.540	3.148	3.148	3.148
			(AC-FT)	27.	34.	34.	34.

CUMULATIVE AREA = .20 SQ MI

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

PLAN 2 INPUT DATA FOR STATION CHANN ARE SAME AS FOR PLAN 1

COMPUTED MUSKINGUM-CUNGE PARAMETERS

ELEMENT	ALPHA	M	COMPUTATION TIME STEP DT (MIN)	DX (FT)	PEAK (CFS)	TIME TO PEAK (MIN)	VOLUME (IN)	MAXIMUM CELERITY (FPS)
MAIN	2.04	1.46	1.29	474.00	370.81	750.62	6.01	12.29

INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL

MAIN	2.04	1.46	5.00		369.90	750.00	6.01

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6448E+02 EXCESS= .0000E+00 OUTFLOW= .6444E+02 BASIN STORAGE= .6575E-01 PERCENT ERROR= .0

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

HYDROGRAPH AT STATION CHANN
FOR PLAN 2, RATIO = 1.00

+	PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.00-HR
			(CFS)				
+	370.	12.50		101.	32.	32.	32.
			(INCHES)	4.653	6.012	6.012	6.012
			(AC-FT)	50.	64.	64.	64.

CUMULATIVE AREA = .20 SQ MI

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

PLAN 3 INPUT DATA FOR STATION CHANN ARE SAME AS FOR PLAN 1

COMPUTED MUSKINGUM-CUNGE PARAMETERS

ELEMENT	ALPHA	M	COMPUTATION TIME STEP DT (MIN)	DX (FT)	PEAK (CFS)	TIME TO PEAK (MIN)	VOLUME (IN)	MAXIMUM CELERITY (FPS)
MAIN	2.04	1.46	1.24	474.00	418.56	750.12	7.35	12.76

INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL

MAIN	2.04	1.46	5.00		418.45	750.00	7.35

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7889E+02 EXCESS= .0000E+00 OUTFLOW= .7884E+02 BASIN STORAGE= .7732E-01 PERCENT ERROR= .0

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

HYDROGRAPH AT STATION CHANN
FOR PLAN 3, RATIO = 1.00

	PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
				6-HR	24-HR	72-HR	24.00-HR
+	(CFS)	(HR)					
			(CFS)				
+	418.	12.50		124.	40.	40.	40.
			(INCHES)	5.727	7.355	7.355	7.355
			(AC-FT)	61.	79.	79.	79.

CUMULATIVE AREA = .20 SQ MI

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

PLAN 4 INPUT DATA FOR STATION CHANN ARE SAME AS FOR PLAN 1

COMPUTED MUSKINGUM-CUNGE PARAMETERS

COMPUTATION TIME STEP

ELEMENT	ALPHA	M	DT (MIN)	DX (FT)	PEAK (CFS)	TIME TO PEAK (MIN)	VOLUME (IN)	MAXIMUM CELERITY (FPS)
MAIN	2.04	1.46	1.19	474.00	470.63	750.47	8.61	13.24

INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL

MAIN	2.04	1.46	5.00		470.39	750.00	8.61

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9234E+02 EXCESS= .0000E+00 OUTFLOW= .9228E+02 BASIN STORAGE= .8824E-01 PERCENT ERROR= .0

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

HYDROGRAPH AT STATION CHANN
FOR PLAN 4, RATIO = 1.00

	PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
				6-HR	24-HR	72-HR	24.00-HR
+	(CFS)	(HR)					
			(CFS)				
+	470.	12.50		145.	47.	47.	47.
			(INCHES)	6.713	8.610	8.610	8.610
			(AC-FT)	72.	92.	92.	92.

CUMULATIVE AREA = .20 SQ MI

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

PLAN 5 INPUT DATA FOR STATION CHANN ARE SAME AS FOR PLAN 1

COMPUTED MUSKINGUM-CUNGE PARAMETERS

COMPUTATION TIME STEP

ELEMENT	ALPHA	M	DT (MIN)	DX (FT)	PEAK (CFS)	TIME TO PEAK (MIN)	VOLUME (IN)	MAXIMUM CELERITY (FPS)
MAIN	2.04	1.46	1.15	474.00	532.79	750.48	9.69	13.77

INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL

MAIN	2.04	1.46	5.00		532.65	750.00	9.69

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1039E+03 EXCESS= .0000E+00 OUTFLOW= .1038E+03 BASIN STORAGE= .8797E-01 PERCENT ERROR= .0

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

HYDROGRAPH AT STATION CHANN
FOR PLAN 5, RATIO = 1.00

	PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.00-HR
+	(CFS)	(HR)				

```
                        (CFS)
+      533.     12.50                160.        52.        52.        52.
                (INCHES)             7.393      9.689      9.689      9.689
                (AC-FT)               79.        104.       104.       104.

                CUMULATIVE AREA =     .20 SQ MI


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

              **************
              *            *
 108 KK       *        E5  *
              *            *
              **************

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

 109 KP          PLAN  1 FOR STATION       E5
                        RUNOFF COMPUTATION 2-YRS STORM IN BASIN

               SUBBASIN RUNOFF DATA

 110 BA          SUBBASIN CHARACTERISTICS
                      TAREA          .03  SUBBASIN AREA

                 PRECIPITATION DATA

 115 PH                                DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                ..... HYDRO-35 .....   ............... TP-40 ...............   ........... TP-49 ...........
                5-MIN  15-MIN  60-MIN    2-HR     3-HR     6-HR    12-HR    24-HR    2-DAY    4-DAY    7-DAY   10-DAY
                  .18     .50    2.40    2.55     2.75     3.30     4.10     4.75      .00      .00      .00      .00

                                              STORM AREA =      .03

 111 LS          SCS LOSS RATE
                      STRTL          .30  INITIAL ABSTRACTION
                     CRVNBR        86.77  CURVE NUMBER
                      RTIMP          .00  PERCENT IMPERVIOUS AREA

 112 UD          SCS DIMENSIONLESS UNITGRAPH
                      TLAG          .10  LAG

                                       ***

                                              UNIT HYDROGRAPH
                                          8 END-OF-PERIOD ORDINATES
                     72.      107.       47.       18.        7.        3.        1.        0.


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

 116 KP          PLAN  2 FOR STATION       E5
                        RUNOFF COMPUTATION 10-YRS STORM IN BASIN

               SUBBASIN RUNOFF DATA

 110 BA          SUBBASIN CHARACTERISTICS
                      TAREA          .03  SUBBASIN AREA

                 PRECIPITATION DATA

 118 PH                                DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                ..... HYDRO-35 .....   ............... TP-40 ...............   ........... TP-49 ...........
                5-MIN  15-MIN  60-MIN    2-HR     3-HR     6-HR    12-HR    24-HR    2-DAY    4-DAY    7-DAY   10-DAY
                  .27     .75    3.35    3.95     4.40     5.40     6.60     7.80      .00      .00      .00      .00

                                              STORM AREA =      .03

 111 LS          SCS LOSS RATE
                      STRTL          .30  INITIAL ABSTRACTION
                     CRVNBR        86.77  CURVE NUMBER
                      RTIMP          .00  PERCENT IMPERVIOUS AREA

 112 UD          SCS DIMENSIONLESS UNITGRAPH
                      TLAG          .10  LAG
```

***

UNIT HYDROGRAPH
8 END-OF-PERIOD ORDINATES

72. 107. 47. 18. 7. 3. 1. 0.

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

119 KP PLAN 3 FOR STATION E5
RUNOFF COMPUTATION 25-YRS STORM IN BASIN

SUBBASIN RUNOFF DATA

110 BA SUBBASIN CHARACTERISTICS
TAREA .03 SUBBASIN AREA

PRECIPITATION DATA

121 PH DEPTHS FOR 0-PERCENT HYPOTHETICAL STORM

..... HYDRO-35			..... TP-40					..... TP-49			
5-MIN	15-MIN	60-MIN	2-HR	3-HR	6-HR	12-HR	24-HR	2-DAY	4-DAY	7-DAY	10-DAY
.32	.90	3.62	4.65	5.25	6.50	7.70	9.20	.00	.00	.00	.00

STORM AREA = .03

111 LS SCS LOSS RATE
STRTL .30 INITIAL ABSTRACTION
CRVNBR 86.77 CURVE NUMBER
RTIMP .00 PERCENT IMPERVIOUS AREA

112 UD SCS DIMENSIONLESS UNITGRAPH
TLAG .10 LAG

***

UNIT HYDROGRAPH
8 END-OF-PERIOD ORDINATES

72. 107. 47. 18. 7. 3. 1. 0.

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

122 KP PLAN 4 FOR STATION E5
RUNOFF COMPUTATION 50-YRS STORM IN BASIN

SUBBASIN RUNOFF DATA

110 BA SUBBASIN CHARACTERISTICS
TAREA .03 SUBBASIN AREA

PRECIPITATION DATA

124 PH DEPTHS FOR 0-PERCENT HYPOTHETICAL STORM

..... HYDRO-35			..... TP-40					..... TP-49			
5-MIN	15-MIN	60-MIN	2-HR	3-HR	6-HR	12-HR	24-HR	2-DAY	4-DAY	7-DAY	10-DAY
.34	.97	4.00	5.30	5.90	7.50	8.70	10.50	.00	.00	.00	.00

STORM AREA = .03

111 LS SCS LOSS RATE
STRTL .30 INITIAL ABSTRACTION
CRVNBR 86.77 CURVE NUMBER
RTIMP .00 PERCENT IMPERVIOUS AREA

112 UD SCS DIMENSIONLESS UNITGRAPH
TLAG .10 LAG

***

UNIT HYDROGRAPH
8 END-OF-PERIOD ORDINATES

72. 107. 47. 18. 7. 3. 1. 0.

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

125 KP PLAN 5 FOR STATION E5
RUNOFF COMPUTATION 100-YRS STORM IN BASIN

SUBBASIN RUNOFF DATA

```
110 BA          SUBBASIN CHARACTERISTICS
                      TAREA          .03   SUBBASIN AREA

                PRECIPITATION DATA

127 PH                                    DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                ..... HYDRO-35 ......    ............... TP-40 ...............    ........... TP-49 ...........
                5-MIN  15-MIN  60-MIN     2-HR     3-HR     6-HR    12-HR    24-HR   2-DAY    4-DAY    7-DAY  10-DAY
                  .39    1.10    4.50     5.65     6.80     8.00     9.80    11.60     .00      .00      .00     .00

                                                STORM AREA =       .03

111 LS          SCS LOSS RATE
                      STRTL          .30  INITIAL ABSTRACTION
                     CRVNBR        86.77  CURVE NUMBER
                      RTIMP          .00  PERCENT IMPERVIOUS AREA

112 UD          SCS DIMENSIONLESS UNITGRAPH
                       TLAG          .10  LAG

                                                                   ***

                                                        UNIT HYDROGRAPH
                                                    8 END-OF-PERIOD ORDINATES
               72.       107.        47.        18.         7.         3.         1.         0.


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


            **************
            *            *
128 KK      *    COMB4   *
            *            *
            **************

129 HC           HYDROGRAPH COMBINATION
                      ICOMP            2  NUMBER OF HYDROGRAPHS TO COMBINE

                                                                   ***


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


            **************
            *            *
130 KK      *    CHANN   *
            *            *
            **************

131 KO           OUTPUT CONTROL VARIABLES
                      IPRNT            3  PRINT CONTROL
                      IPLOT            0  PLOT CONTROL
                      QSCAL           0.  HYDROGRAPH PLOT SCALE
                      IPNCH            0  PUNCH COMPUTED HYDROGRAPH
                       IOUT           21  SAVE HYDROGRAPH ON THIS UNIT
                      ISAV1            1  FIRST ORDINATE PUNCHED OR SAVED
                      ISAV2          289  LAST ORDINATE PUNCHED OR SAVED
                     TIMINT         .083  TIME INTERVAL IN HOURS


               HYDROGRAPH ROUTING DATA

132 RD           MUSKINGUM-CUNGE CHANNEL ROUTING
                          L        2920.  CHANNEL LENGTH
                          S        .0050  SLOPE
                          N         .013  CHANNEL ROUGHNESS COEFFICIENT
                         CA          .00  CONTRIBUTING AREA
                      SHAPE         TRAP  CHANNEL SHAPE
                         WD        12.00  BOTTOM WIDTH OR DIAMETER
                          Z         2.00  SIDE SLOPE

                                                                   ***
                                     COMPUTED MUSKINGUM-CUNGE PARAMETERS
                                           COMPUTATION TIME STEP
                    ELEMENT     ALPHA        M          DT          DX         PEAK     TIME TO       VOLUME      MAXIMUM
                                                                                          PEAK                    CELERITY
```

		(MIN)	(FT)	(CFS)	(MIN)	(IN)	(FPS)
MAIN	2.04	1.46	4.39	1460.00	263.72	755.43	3.16	11.08

INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL

MAIN	2.04	1.46	5.00		263.60	755.00	3.17	

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3956E+02 EXCESS= .0000E+00 OUTFLOW= .3947E+02 BASIN STORAGE= .1433E+00 PERCENT ERROR= -.1

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

HYDROGRAPH AT STATION CHANN
FOR PLAN 1, RATIO = 1.00

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	24.00-HR
+ (CFS)	(HR)				
	(CFS)	64.	20.	20.	20.
+ 264.	12.58				
	(INCHES)	2.554	3.166	3.166	3.166
	(AC-FT)	32.	40.	40.	40.

CUMULATIVE AREA = .23 SQ MI

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

PLAN 2 INPUT DATA FOR STATION CHANN ARE SAME AS FOR PLAN 1

COMPUTED MUSKINGUM-CUNGE PARAMETERS

ELEMENT	ALPHA	M	COMPUTATION TIME STEP DT (MIN)	DX (FT)	PEAK (CFS)	TIME TO PEAK (MIN)	VOLUME (IN)	MAXIMUM CELERITY (FPS)
MAIN	2.04	1.46	3.79	1460.00	423.76	750.72	6.02	12.84

INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL

MAIN	2.04	1.46	5.00		423.24	750.00	6.03	

CONTINUITY SUMMARY (AC-FT) - INFLOW= .7536E+02 EXCESS= .0000E+00 OUTFLOW= .7522E+02 BASIN STORAGE= .2258E+00 PERCENT ERROR= -.1

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

HYDROGRAPH AT STATION CHANN
FOR PLAN 2, RATIO = 1.00

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	24.00-HR
+ (CFS)	(HR)				
	(CFS)	117.	38.	38.	38.
+ 423.	12.50				
	(INCHES)	4.667	6.029	6.029	6.029
	(AC-FT)	58.	75.	75.	75.

CUMULATIVE AREA = .23 SQ MI

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

PLAN 3 INPUT DATA FOR STATION CHANN ARE SAME AS FOR PLAN 1

COMPUTED MUSKINGUM-CUNGE PARAMETERS

ELEMENT	ALPHA	M	COMPUTATION TIME STEP DT (MIN)	DX (FT)	PEAK (CFS)	TIME TO PEAK (MIN)	VOLUME (IN)	MAXIMUM CELERITY (FPS)
MAIN	2.04	1.46	3.65	1460.00	480.25	749.15	7.37	13.32

INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL

MAIN	2.04	1.46	5.00		479.49	750.00	7.37

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9221E+02 EXCESS= .0000E+00 OUTFLOW= .9203E+02 BASIN STORAGE= .2649E+00 PERCENT ERROR= -.1

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

HYDROGRAPH AT STATION CHANN
FOR PLAN 3, RATIO = 1.00

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.00-HR
+ (CFS)	(HR)	(CFS)				
+ 479.	12.50		144.	46.	46.	46.
		(INCHES)	5.740	7.372	7.372	7.372
		(AC-FT)	72.	92.	92.	92.

CUMULATIVE AREA = .23 SQ MI

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

PLAN 4 INPUT DATA FOR STATION CHANN ARE SAME AS FOR PLAN 1

COMPUTED MUSKINGUM-CUNGE PARAMETERS
COMPUTATION TIME STEP

ELEMENT	ALPHA	M	DT (MIN)	DX (FT)	PEAK (CFS)	TIME TO PEAK (MIN)	VOLUME (IN)	MAXIMUM CELERITY (FPS)
MAIN	2.04	1.46	3.52	1460.00	539.61	746.31	8.63	13.82

INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL

MAIN	2.04	1.46	5.00		539.31	750.00	8.63

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1079E+03 EXCESS= .0000E+00 OUTFLOW= .1077E+03 BASIN STORAGE= .3021E+00 PERCENT ERROR= -.1

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

HYDROGRAPH AT STATION CHANN
FOR PLAN 4, RATIO = 1.00

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.00-HR
+ (CFS)	(HR)	(CFS)				
+ 539.	12.50		169.	54.	54.	54.
		(INCHES)	6.726	8.628	8.628	8.628
		(AC-FT)	84.	108.	108.	108.

CUMULATIVE AREA = .23 SQ MI

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

PLAN 5 INPUT DATA FOR STATION CHANN ARE SAME AS FOR PLAN 1

COMPUTED MUSKINGUM-CUNGE PARAMETERS
COMPUTATION TIME STEP

ELEMENT	ALPHA	M	DT (MIN)	DX (FT)	PEAK (CFS)	TIME TO PEAK (MIN)	VOLUME (IN)	MAXIMUM CELERITY (FPS)
MAIN	2.04	1.46	3.38	1460.00	612.96	747.79	9.70	14.38

INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL

```
                MAIN        2.04        1.46        5.00                610.66    750.00        9.71

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1213E+03 EXCESS= .0000E+00 OUTFLOW= .1211E+03 BASIN STORAGE= .3015E+00 PERCENT ERROR=   -.1


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

                 HYDROGRAPH AT STATION    CHANN
                   FOR PLAN 5, RATIO = 1.00

 PEAK FLOW      TIME                        MAXIMUM AVERAGE FLOW
                                     6-HR        24-HR        72-HR      24.00-HR
+   (CFS)       (HR)
                           (CFS)
+     611.     12.50                  186.          61.          61.          61.
                         (INCHES)    7.405        9.707        9.707        9.707
                          (AC-FT)      92.         121.         121.         121.

                         CUMULATIVE AREA =      .23 SQ MI


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

           **************
           *            *
 133 KK    *       P2E  *
           *            *
           **************

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

 134 KP        PLAN  1 FOR STATION       P2E
                              RUNOFF COMPUTATION 2-YRS STORM IN BASIN

               SUBBASIN RUNOFF DATA

 135 BA          SUBBASIN CHARACTERISTICS
                       TAREA          .08  SUBBASIN AREA

                 PRECIPITATION DATA

 140 PH                               DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                 ..... HYDRO-35 ......   ............... TP-40 ...............   ........... TP-49 ...........
                 5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                   .18     .50    2.40    2.55    2.75    3.30    4.10    4.75     .00     .00     .00     .00

                                               STORM AREA =       .08

 136 LS          SCS LOSS RATE
                       STRTL          .15  INITIAL ABSTRACTION
                      CRVNBR        93.00  CURVE NUMBER
                       RTIMP          .00  PERCENT IMPERVIOUS AREA

 137 UD          SCS DIMENSIONLESS UNITGRAPH
                       TLAG           .29  LAG

                                                          ***

                                                     UNIT HYDROGRAPH
                                                19 END-OF-PERIOD ORDINATES
                16.        53.        99.       112.       100.        75.        47.        31.        21.        14.
                 9.         6.         4.         3.         2.         1.         1.         1.         0.

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

 141 KP        PLAN  2 FOR STATION       P2E
                              RUNOFF COMPUTATION 10-YRS STORM IN BASIN

               SUBBASIN RUNOFF DATA

 135 BA          SUBBASIN CHARACTERISTICS
                       TAREA          .08  SUBBASIN AREA
```

PRECIPITATION DATA

143 PH

DEPTHS FOR 0-PERCENT HYPOTHETICAL STORM

..... HYDRO-35			..... TP-40					..... TP-49			
5-MIN	15-MIN	60-MIN	2-HR	3-HR	6-HR	12-HR	24-HR	2-DAY	4-DAY	7-DAY	10-DAY
.27	.75	3.35	3.95	4.40	5.40	6.60	7.80	.00	.00	.00	.00

STORM AREA = .08

136 LS SCS LOSS RATE

STRTL	.15	INITIAL ABSTRACTION
CRVNBR	93.00	CURVE NUMBER
RTIMP	.00	PERCENT IMPERVIOUS AREA

137 UD SCS DIMENSIONLESS UNITGRAPH

TLAG	.29	LAG

***

UNIT HYDROGRAPH
19 END-OF-PERIOD ORDINATES

16.	53.	99.	112.	100.	75.	47.	31.	21.	14.
9.	6.	4.	3.	2.	1.	1.	1.	0.	

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

144 KP PLAN 3 FOR STATION P2E

RUNOFF COMPUTATION 25-YRS STORM IN BASIN

SUBBASIN RUNOFF DATA

135 BA SUBBASIN CHARACTERISTICS

TAREA	.08	SUBBASIN AREA

PRECIPITATION DATA

146 PH

DEPTHS FOR 0-PERCENT HYPOTHETICAL STORM

..... HYDRO-35			..... TP-40					..... TP-49			
5-MIN	15-MIN	60-MIN	2-HR	3-HR	6-HR	12-HR	24-HR	2-DAY	4-DAY	7-DAY	10-DAY
.32	.90	3.62	4.65	5.25	6.50	7.70	9.20	.00	.00	.00	.00

STORM AREA = .08

136 LS SCS LOSS RATE

STRTL	.15	INITIAL ABSTRACTION
CRVNBR	93.00	CURVE NUMBER
RTIMP	.00	PERCENT IMPERVIOUS AREA

137 UD SCS DIMENSIONLESS UNITGRAPH

TLAG	.29	LAG

***

UNIT HYDROGRAPH
19 END-OF-PERIOD ORDINATES

16.	53.	99.	112.	100.	75.	47.	31.	21.	14.
9.	6.	4.	3.	2.	1.	1.	1.	0.	

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

147 KP PLAN 4 FOR STATION P2E

RUNOFF COMPUTATION 50-YRS STORM IN BASIN

SUBBASIN RUNOFF DATA

135 BA SUBBASIN CHARACTERISTICS

TAREA	.08	SUBBASIN AREA

PRECIPITATION DATA

149 PH

DEPTHS FOR 0-PERCENT HYPOTHETICAL STORM

..... HYDRO-35			..... TP-40					..... TP-49			
5-MIN	15-MIN	60-MIN	2-HR	3-HR	6-HR	12-HR	24-HR	2-DAY	4-DAY	7-DAY	10-DAY
.34	.97	4.00	5.30	5.90	7.50	8.70	10.50	.00	.00	.00	.00

STORM AREA = .08

136 LS SCS LOSS RATE

```
                    STRTL          .15  INITIAL ABSTRACTION
                   CRVNBR        93.00  CURVE NUMBER
                    RTIMP          .00  PERCENT IMPERVIOUS AREA

137 UD          SCS DIMENSIONLESS UNITGRAPH
                     TLAG          .29  LAG

                                                ***

                                                UNIT HYDROGRAPH
                                            19 END-OF-PERIOD ORDINATES
                  16.       53.       99.      112.      100.       75.       47.       31.       21.       14.
                   9.        6.        4.        3.        2.        1.        1.        1.        0.

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

150 KP          PLAN  5 FOR STATION      P2E
                                RUNOFF COMPUTATION 100-YRS STORM IN BASIN

                SUBBASIN RUNOFF DATA

135 BA            SUBBASIN CHARACTERISTICS
                     TAREA          .08  SUBBASIN AREA

                PRECIPITATION DATA

152 PH                                  DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                ..... HYDRO-35 .....   ............... TP-40 ...............   ........... TP-49 ...........
                5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                  .39    1.10    4.50    5.65    6.80    8.00    9.80   11.60     .00     .00     .00     .00

                                                STORM AREA =      .08

136 LS          SCS LOSS RATE
                     STRTL          .15  INITIAL ABSTRACTION
                    CRVNBR        93.00  CURVE NUMBER
                     RTIMP          .00  PERCENT IMPERVIOUS AREA

137 UD          SCS DIMENSIONLESS UNITGRAPH
                     TLAG          .29  LAG

                                                ***

                                                UNIT HYDROGRAPH
                                            19 END-OF-PERIOD ORDINATES
                  16.       53.       99.      112.      100.       75.       47.       31.       21.       14.
                   9.        6.        4.        3.        2.        1.        1.        1.        0.

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

                ***************
                *               *
153 KK          *     PIPE      *
                *               *
                ***************

154 KO          OUTPUT CONTROL VARIABLES
                     IPRNT            3  PRINT CONTROL
                     IPLOT            0  PLOT CONTROL
                     QSCAL           0.  HYDROGRAPH PLOT SCALE
                     IPNCH            0  PUNCH COMPUTED HYDROGRAPH
                      IOUT           21  SAVE HYDROGRAPH ON THIS UNIT
                     ISAV1            1  FIRST ORDINATE PUNCHED OR SAVED
                     ISAV2          289  LAST ORDINATE PUNCHED OR SAVED
                    TIMINT         .083  TIME INTERVAL IN HOURS

                HYDROGRAPH ROUTING DATA

155 RD          MUSKINGUM-CUNGE CHANNEL ROUTING
                         L       1099.  CHANNEL LENGTH
                         S       .0050  SLOPE
                         N        .013  CHANNEL ROUGHNESS COEFFICIENT
                        CA         .00  CONTRIBUTING AREA
                     SHAPE        CIRC  CHANNEL SHAPE
                        WD        5.00  BOTTOM WIDTH OR DIAMETER
                         Z         .00  SIDE SLOPE
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***

COMPUTED MUSKINGUM-CUNGE PARAMETERS
COMPUTATION TIME STEP

ELEMENT	ALPHA	M	DT (MIN)	DX (FT)	PEAK (CFS)	TIME TO PEAK (MIN)	VOLUME (IN)	MAXIMUM CELERITY (FPS)
MAIN	5.72	1.25	1.62	549.50	113.02	748.68	3.93	11.30

INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL

MAIN	5.72	1.25	5.00		112.88	750.00	3.93

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1616E+02 EXCESS= .0000E+00 OUTFLOW= .1615E+02 BASIN STORAGE= .1137E-01 PERCENT ERROR= .0

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

HYDROGRAPH AT STATION PIPE
FOR PLAN 1, RATIO = 1.00

	PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.00-HR
+	(CFS)	(HR)					
			(CFS)				
+	113.	12.50		25.	8.	8.	8.
			(INCHES)	3.027	3.934	3.934	3.934
			(AC-FT)	12.	16.	16.	16.

CUMULATIVE AREA = .08 SQ MI

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

PLAN 2 INPUT DATA FOR STATION PIPE ARE SAME AS FOR PLAN 1
COMPUTED MUSKINGUM-CUNGE PARAMETERS
COMPUTATION TIME STEP

ELEMENT	ALPHA	M	DT (MIN)	DX (FT)	PEAK (CFS)	TIME TO PEAK (MIN)	VOLUME (IN)	MAXIMUM CELERITY (FPS)
MAIN	5.72	1.25	1.50	549.50	167.07	746.12	6.93	12.23

INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL

MAIN	5.72	1.25	5.00		166.96	745.00	6.93

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2847E+02 EXCESS= .0000E+00 OUTFLOW= .2845E+02 BASIN STORAGE= .1886E-01 PERCENT ERROR= .0

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

HYDROGRAPH AT STATION PIPE
FOR PLAN 2, RATIO = 1.00

	PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.00-HR
+	(CFS)	(HR)					
			(CFS)				
+	167.	12.42		43.	14.	14.	14.
			(INCHES)	5.166	6.929	6.929	6.929
			(AC-FT)	21.	28.	28.	28.

CUMULATIVE AREA = .08 SQ MI

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

PLAN 3 INPUT DATA FOR STATION PIPE ARE SAME AS FOR PLAN 1
COMPUTED MUSKINGUM-CUNGE PARAMETERS

ELEMENT	ALPHA	COMPUTATION TIME STEP M	DT (MIN)	DX (FT)	PEAK (CFS)	TIME TO PEAK (MIN)	VOLUME (IN)	MAXIMUM CELERITY (FPS)
MAIN	5.72	1.25	1.46	549.50	188.32	737.39	8.31	12.52

INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL

MAIN	5.72	1.25	5.00		188.18	740.00	8.31	

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3415E+02 EXCESS= .0000E+00 OUTFLOW= .3413E+02 BASIN STORAGE= .2267E-01 PERCENT ERROR= .0

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

HYDROGRAPH AT STATION PIPE
FOR PLAN 3, RATIO = 1.00

	PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.00-HR
+	(CFS)	(HR)					
			(CFS)				
+	188.	12.33		52.	17.	17.	17.
			(INCHES)	6.262	8.310	8.310	8.310
			(AC-FT)	26.	34.	34.	34.

CUMULATIVE AREA = .08 SQ MI

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

PLAN 4 INPUT DATA FOR STATION PIPE ARE SAME AS FOR PLAN 1
COMPUTED MUSKINGUM-CUNGE PARAMETERS

ELEMENT	ALPHA	COMPUTATION TIME STEP M	DT (MIN)	DX (FT)	PEAK (CFS)	TIME TO PEAK (MIN)	VOLUME (IN)	MAXIMUM CELERITY (FPS)
MAIN	5.72	1.25	1.43	549.50	208.24	736.96	9.59	12.78

INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL

MAIN	5.72	1.25	5.00		207.68	740.00	9.59	

CONTINUITY SUMMARY (AC-FT) - INFLOW= .3943E+02 EXCESS= .0000E+00 OUTFLOW= .3940E+02 BASIN STORAGE= .2635E-01 PERCENT ERROR= .0

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

HYDROGRAPH AT STATION PIPE
FOR PLAN 4, RATIO = 1.00

	PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.00-HR
+	(CFS)	(HR)					
			(CFS)				
+	208.	12.33		60.	20.	20.	20.
			(INCHES)	7.257	9.595	9.595	9.595
			(AC-FT)	30.	39.	39.	39.

CUMULATIVE AREA = .08 SQ MI

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

PLAN 5 INPUT DATA FOR STATION PIPE ARE SAME AS FOR PLAN 1
COMPUTED MUSKINGUM-CUNGE PARAMETERS

ELEMENT	ALPHA	COMPUTATION TIME STEP M	DT	DX	PEAK	TIME TO PEAK	VOLUME	MAXIMUM CELERITY

		(MIN)	(FT)	(CFS)	(MIN)	(IN)	(FPS)
MAIN	5.72	1.25	1.40	549.50	234.76	737.73	10.69	13.08

INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL

MAIN	5.72	1.25	5.00		234.36	740.00	10.69

CONTINUITY SUMMARY (AC-FT) - INFLOW= .4392E+02 EXCESS= .0000E+00 OUTFLOW= .4389E+02 BASIN STORAGE= .2620E-01 PERCENT ERROR= .0

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

HYDROGRAPH AT STATION PIPE
FOR PLAN 5, RATIO = 1.00

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	24.00-HR
+ (CFS)	(HR)				
		(CFS)			
+ 234.	12.33	65.	22.	22.	22.
		(INCHES) 7.848	10.691	10.691	10.691
		(AC-FT) 32.	44.	44.	44.

CUMULATIVE AREA = .08 SQ MI

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          *            *
156 KK    *     E6     *
          *            *
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157 KP PLAN 1 FOR STATION E6
RUNOFF COMPUTATION 2-YRS STORM IN BASIN

SUBBASIN RUNOFF DATA

158 BA SUBBASIN CHARACTERISTICS
TAREA .06 SUBBASIN AREA

PRECIPITATION DATA

163 PH DEPTHS FOR 0-PERCENT HYPOTHETICAL STORM

..... HYDRO-35			..... TP-40				..... TP-49			
5-MIN	15-MIN	60-MIN	2-HR	3-HR	6-HR	12-HR	24-HR	2-DAY	4-DAY	7-DAY	10-DAY
.18	.50	2.40	2.55	2.75	3.30	4.10	4.75	.00	.00	.00	.00

STORM AREA = .06

159 LS SCS LOSS RATE
STRTL .31 INITIAL ABSTRACTION
CRVNBR 86.57 CURVE NUMBER
RTIMP .00 PERCENT IMPERVIOUS AREA

160 UD SCS DIMENSIONLESS UNITGRAPH
TLAG .11 LAG

***

UNIT HYDROGRAPH
9 END-OF-PERIOD ORDINATES

112.	197.	102.	41.	17.	7.	3.	1.	0.

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

164 KP PLAN 2 FOR STATION E6
RUNOFF COMPUTATION 10-YRS STORM IN BASIN

SUBBASIN RUNOFF DATA

158 BA SUBBASIN CHARACTERISTICS

TAREA	.06	SUBBASIN AREA

PRECIPITATION DATA

166 PH DEPTHS FOR 0-PERCENT HYPOTHETICAL STORM

..... HYDRO-35			..... TP-40					..... TP-49			
5-MIN	15-MIN	60-MIN	2-HR	3-HR	6-HR	12-HR	24-HR	2-DAY	4-DAY	7-DAY	10-DAY
.27	.75	3.35	3.95	4.40	5.40	6.60	7.80	.00	.00	.00	.00

STORM AREA = .06

159 LS SCS LOSS RATE

STRTL	.31	INITIAL ABSTRACTION
CRVNBR	86.57	CURVE NUMBER
RTIMP	.00	PERCENT IMPERVIOUS AREA

160 UD SCS DIMENSIONLESS UNITGRAPH

TLAG	.11	LAG

***

UNIT HYDROGRAPH
9 END-OF-PERIOD ORDINATES

112. 197. 102. 41. 17. 7. 3. 1. 0.

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

167 KP PLAN 3 FOR STATION E6
RUNOFF COMPUTATION 25-YRS STORM IN BASIN

SUBBASIN RUNOFF DATA

158 BA SUBBASIN CHARACTERISTICS

TAREA	.06	SUBBASIN AREA

PRECIPITATION DATA

169 PH DEPTHS FOR 0-PERCENT HYPOTHETICAL STORM

..... HYDRO-35			..... TP-40					..... TP-49			
5-MIN	15-MIN	60-MIN	2-HR	3-HR	6-HR	12-HR	24-HR	2-DAY	4-DAY	7-DAY	10-DAY
.32	.90	3.62	4.65	5.25	6.50	7.70	9.20	.00	.00	.00	.00

STORM AREA = .06

159 LS SCS LOSS RATE

STRTL	.31	INITIAL ABSTRACTION
CRVNBR	86.57	CURVE NUMBER
RTIMP	.00	PERCENT IMPERVIOUS AREA

160 UD SCS DIMENSIONLESS UNITGRAPH

TLAG	.11	LAG

***

UNIT HYDROGRAPH
9 END-OF-PERIOD ORDINATES

112. 197. 102. 41. 17. 7. 3. 1. 0.

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

170 KP PLAN 4 FOR STATION E6
RUNOFF COMPUTATION 50-YRS STORM IN BASIN

SUBBASIN RUNOFF DATA

158 BA SUBBASIN CHARACTERISTICS

TAREA	.06	SUBBASIN AREA

PRECIPITATION DATA

172 PH DEPTHS FOR 0-PERCENT HYPOTHETICAL STORM

..... HYDRO-35			..... TP-40					..... TP-49			
5-MIN	15-MIN	60-MIN	2-HR	3-HR	6-HR	12-HR	24-HR	2-DAY	4-DAY	7-DAY	10-DAY
.34	.97	4.00	5.30	5.90	7.50	8.70	10.50	.00	.00	.00	.00

STORM AREA = .06

159 LS SCS LOSS RATE

STRTL	.31	INITIAL ABSTRACTION
CRVNBR	86.57	CURVE NUMBER
RTIMP	.00	PERCENT IMPERVIOUS AREA

160 UD SCS DIMENSIONLESS UNITGRAPH

TLAG	.11	LAG

***

UNIT HYDROGRAPH
9 END-OF-PERIOD ORDINATES

112.	197.	102.	41.	17.	7.	3.	1.	0.

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173 KP PLAN 5 FOR STATION E6
RUNOFF COMPUTATION 100-YRS STORM IN BASIN

SUBBASIN RUNOFF DATA

158 BA SUBBASIN CHARACTERISTICS

TAREA	.06	SUBBASIN AREA

PRECIPITATION DATA

175 PH DEPTHS FOR 0-PERCENT HYPOTHETICAL STORM

..... HYDRO-35			..... TP-40					..... TP-49			
5-MIN	15-MIN	60-MIN	2-HR	3-HR	6-HR	12-HR	24-HR	2-DAY	4-DAY	7-DAY	10-DAY
.39	1.10	4.50	5.65	6.80	8.00	9.80	11.60	.00	.00	.00	.00

STORM AREA = .06

159 LS SCS LOSS RATE

STRTL	.31	INITIAL ABSTRACTION
CRVNBR	86.57	CURVE NUMBER
RTIMP	.00	PERCENT IMPERVIOUS AREA

160 UD SCS DIMENSIONLESS UNITGRAPH

TLAG	.11	LAG

***

UNIT HYDROGRAPH
9 END-OF-PERIOD ORDINATES

112.	197.	102.	41.	17.	7.	3.	1.	0.

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            *            *
176 KK      *     COMB5  *
            *            *
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177 HC HYDROGRAPH COMBINATION

ICOMP	3	NUMBER OF HYDROGRAPHS TO COMBINE

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            *            *
178 KK      *     CHANN  *
            *            *
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179 KO OUTPUT CONTROL VARIABLES

IPRNT	3	PRINT CONTROL
IPLOT	0	PLOT CONTROL
QSCAL	0.	HYDROGRAPH PLOT SCALE

IPNCH	0	PUNCH COMPUTED HYDROGRAPH
IOUT	21	SAVE HYDROGRAPH ON THIS UNIT
ISAV1	1	FIRST ORDINATE PUNCHED OR SAVED
ISAV2	289	LAST ORDINATE PUNCHED OR SAVED
TIMINT	.083	TIME INTERVAL IN HOURS

HYDROGRAPH ROUTING DATA

180 RD MUSKINGUM-CUNGE CHANNEL ROUTING

L	1102.	CHANNEL LENGTH
S	.0050	SLOPE
N	.013	CHANNEL ROUGHNESS COEFFICIENT
CA	.00	CONTRIBUTING AREA
SHAPE	TRAP	CHANNEL SHAPE
WD	12.00	BOTTOM WIDTH OR DIAMETER
Z	2.00	SIDE SLOPE

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COMPUTED MUSKINGUM-CUNGE PARAMETERS
COMPUTATION TIME STEP

ELEMENT	ALPHA	M	DT (MIN)	DX (FT)	PEAK (CFS)	TIME TO PEAK (MIN)	VOLUME (IN)	MAXIMUM CELERITY (FPS)
MAIN	2.04	1.46	1.41	551.00	447.40	749.95	3.34	13.03

INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL

MAIN	2.04	1.46	5.00		447.37	750.00	3.34	

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6652E+02 EXCESS= .0000E+00 OUTFLOW= .6647E+02 BASIN STORAGE= .7484E-01 PERCENT ERROR= .0

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HYDROGRAPH AT STATION CHANN
FOR PLAN 1, RATIO - 1.00

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	24.00-HR
+ (CFS)	(HR)	(CFS)			
+ 447.	12.50	107.	34.	34.	34.
		(INCHES) 2.658	3.342	3.342	3.342
		(AC-FT) 53.	66.	66.	66.

CUMULATIVE AREA = .37 SQ MI

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PLAN 2 INPUT DATA FOR STATION CHANN ARE SAME AS FOR PLAN 1

COMPUTED MUSKINGUM-CUNGE PARAMETERS
COMPUTATION TIME STEP

ELEMENT	ALPHA	M	DT (MIN)	DX (FT)	PEAK (CFS)	TIME TO PEAK (MIN)	VOLUME (IN)	MAXIMUM CELERITY (FPS)
MAIN	2.04	1.46	1.22	551.00	705.37	745.15	6.24	15.04

INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL

MAIN	2.04	1.46	5.00		705.24	745.00	6.24	

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1242E+03 EXCESS= .0000E+00 OUTFLOW= .1241E+03 BASIN STORAGE= .1174E+00 PERCENT ERROR= .0

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

HYDROGRAPH AT STATION CHANN
FOR PLAN 2, RATIO = 1.00

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.00-HR
+ (CFS)	(HR)					
		(CFS)				
+ 705.	12.42		192.	63.	63.	63.
		(INCHES)	4.779	6.239	6.239	6.239
		(AC-FT)	95.	124.	124.	124.

CUMULATIVE AREA = .37 SQ MI

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

PLAN 3 INPUT DATA FOR STATION CHANN ARE SAME AS FOR PLAN 1

COMPUTED MUSKINGUM-CUNGE PARAMETERS

COMPUTATION TIME STEP

ELEMENT	ALPHA	M	DT (MIN)	DX (FT)	PEAK (CFS)	TIME TO PEAK (MIN)	VOLUME (IN)	MAXIMUM CELERITY (FPS)
MAIN	2.04	1.46	1.17	551.00	800.56	741.94	7.59	15.65

INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL

MAIN	2.04	1.46	5.00		797.90	745.00	7.59	

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1511E+03 EXCESS= .0000E+00 OUTFLOW= .1510E+03 BASIN STORAGE= .1377E+00 PERCENT ERROR= .0

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

HYDROGRAPH AT STATION CHANN
FOR PLAN 3, RATIO = 1.00

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.00-HR
+ (CFS)	(HR)					
		(CFS)				
+ 798.	12.42		235.	76.	76.	76.
		(INCHES)	5.857	7.592	7.592	7.592
		(AC-FT)	117.	151.	151.	151.

CUMULATIVE AREA = .37 SQ MI

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PLAN 4 INPUT DATA FOR STATION CHANN ARE SAME AS FOR PLAN 1

COMPUTED MUSKINGUM-CUNGE PARAMETERS

COMPUTATION TIME STEP

ELEMENT	ALPHA	M	DT (MIN)	DX (FT)	PEAK (CFS)	TIME TO PEAK (MIN)	VOLUME (IN)	MAXIMUM CELERITY (FPS)
MAIN	2.04	1.46	1.13	551.00	897.74	741.65	8.85	16.22

INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL

MAIN	2.04	1.46	5.00		894.11	745.00	8.86	

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1762E+03 EXCESS= .0000E+00 OUTFLOW= .1761E+03 BASIN STORAGE= .1569E+00 PERCENT ERROR= .0

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HYDROGRAPH AT STATION CHANN
FOR PLAN 4, RATIO = 1.00

PEAK FLOW	TIME	MAXIMUM AVERAGE FLOW			
		6-HR	24-HR	72-HR	24.00-HR

+	(CFS)	(HR)					
			(CFS)				
+	894.	12.42		275.	89.	89.	89.
			(INCHES)	6.844	8.856	8.856	8.856
			(AC-FT)	136.	176.	176.	176.

CUMULATIVE AREA = .37 SQ MI

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

PLAN 5 INPUT DATA FOR STATION CHANN ARE SAME AS FOR PLAN 1

COMPUTED MUSKINGUM-CUNGE PARAMETERS

COMPUTATION TIME STEP

ELEMENT	ALPHA	M	DT (MIN)	DX (FT)	PEAK (CFS)	TIME TO PEAK (MIN)	VOLUME (IN)	MAXIMUM CELERITY (FPS)
MAIN	2.04	1.46	1.09	551.00	1016.28	741.64	9.94	16.87

INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL

MAIN	2.04	1.46	5.00		1013.01	745.00	9.94

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1978E+03 EXCESS= .0000E+00 OUTFLOW= .1977E+03 BASIN STORAGE= .1564E+00 PERCENT ERROR= .0

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

HYDROGRAPH AT STATION CHANN
FOR PLAN 5, RATIO = 1.00

PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.00-HR
+ (CFS)	(HR)					
		(CFS)				
+ 1013.	12.42		301.	100.	100.	100.
		(INCHES)	7.506	9.939	9.939	9.939
		(AC-FT)	149.	198.	198.	198.

CUMULATIVE AREA = .37 SQ MI

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              *            *
181 KK        *        E7  *
              *            *
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182 KP PLAN 1 FOR STATION E7

RUNOFF COMPUTATION 2-YRS STORM IN BASIN

SUBBASIN RUNOFF DATA

183 BA SUBBASIN CHARACTERISTICS

TAREA .15 SUBBASIN AREA

PRECIPITATION DATA

188 PH DEPTHS FOR 0-PERCENT HYPOTHETICAL STORM

..... HYDRO-35			..... TP-40					..... TP-49			
5-MIN	15-MIN	60-MIN	2-HR	3-HR	6-HR	12-HR	24-HR	2-DAY	4-DAY	7-DAY	10-DAY
.18	.50	2.40	2.55	2.75	3.30	4.10	4.75	.00	.00	.00	.00

STORM AREA = .15

184 LS SCS LOSS RATE

STRTL .30 INITIAL ABSTRACTION

CRVNBR 86.78 CURVE NUMBER
RTIMP .00 PERCENT IMPERVIOUS AREA

185 UD SCS DIMENSIONLESS UNITGRAPH
TLAG .47 LAG

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UNIT HYDROGRAPH
30 END-OF-PERIOD ORDINATES

10.	31.	63.	104.	131.	139.	135.	120.	100.	74.
55.	42.	33.	26.	19.	15.	11.	9.	7.	5.
4.	3.	2.	2.	1.	1.	1.	1.	0.	0.

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

189 KP PLAN 2 FOR STATION E7
RUNOFF COMPUTATION 10-YRS STORM IN BASIN

SUBBASIN RUNOFF DATA

183 BA SUBBASIN CHARACTERISTICS
TAREA .15 SUBBASIN AREA

PRECIPITATION DATA

191 PH DEPTHS FOR 0-PERCENT HYPOTHETICAL STORM

..... HYDRO-35			..... TP-40					..... TP-49			
5-MIN	15-MIN	60-MIN	2-HR	3-HR	6-HR	12-HR	24-HR	2-DAY	4-DAY	7-DAY	10-DAY
.27	.75	3.35	3.95	4.40	5.40	6.60	7.80	.00	.00	.00	.00

STORM AREA = .15

184 LS SCS LOSS RATE
STRTL .30 INITIAL ABSTRACTION
CRVNBR 86.78 CURVE NUMBER
RTIMP .00 PERCENT IMPERVIOUS AREA

185 UD SCS DIMENSIONLESS UNITGRAPH
TLAG .47 LAG

***

UNIT HYDROGRAPH
30 END-OF-PERIOD ORDINATES

10.	31.	63.	104.	131.	139.	135.	120.	100.	74.
55.	42.	33.	26.	19.	15.	11.	9.	7.	5.
4.	3.	2.	2.	1.	1.	1.	1.	0.	0.

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

192 KP PLAN 3 FOR STATION E7
RUNOFF COMPUTATION 25-YRS STORM IN BASIN

SUBBASIN RUNOFF DATA

183 BA SUBBASIN CHARACTERISTICS
TAREA .15 SUBBASIN AREA

PRECIPITATION DATA

194 PH DEPTHS FOR 0-PERCENT HYPOTHETICAL STORM

..... HYDRO-35			..... TP-40					..... TP-49			
5-MIN	15-MIN	60-MIN	2-HR	3-HR	6-HR	12-HR	24-HR	2-DAY	4-DAY	7-DAY	10-DAY
.32	.90	3.62	4.65	5.25	6.50	7.70	9.20	.00	.00	.00	.00

STORM AREA = .15

184 LS SCS LOSS RATE
STRTL .30 INITIAL ABSTRACTION
CRVNBR 86.78 CURVE NUMBER
RTIMP .00 PERCENT IMPERVIOUS AREA

185 UD SCS DIMENSIONLESS UNITGRAPH
TLAG .47 LAG

***

UNIT HYDROGRAPH

30 END-OF-PERIOD ORDINATES

10.	31.	63.	104.	131.	139.	135.	120.	100.	74.
55.	42.	33.	26.	19.	15.	11.	9.	7.	5.
4.	3.	2.	2.	1.	1.	1.	1.	0.	0.

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195 KP PLAN 4 FOR STATION E7
RUNOFF COMPUTATION 50-YRS STORM IN BASIN

SUBBASIN RUNOFF DATA

183 BA SUBBASIN CHARACTERISTICS
TAREA .15 SUBBASIN AREA

PRECIPITATION DATA

197 PH DEPTHS FOR 0-PERCENT HYPOTHETICAL STORM

..... HYDRO-35			.... TP-40					.... TP-49		
5-MIN	15-MIN	60-MIN	2-HR	3-HR	6-HR	12-HR	24-HR	2-DAY	4-DAY	7-DAY	10-DAY
.34	.97	4.00	5.30	5.90	7.50	8.70	10.50	.00	.00	.00	.00

STORM AREA = .15

184 LS SCS LOSS RATE
STRTL .30 INITIAL ABSTRACTION
CRVNBR 86.78 CURVE NUMBER
RTIMP .00 PERCENT IMPERVIOUS AREA

185 UD SCS DIMENSIONLESS UNITGRAPH
TLAG .47 LAG

***

UNIT HYDROGRAPH
30 END-OF-PERIOD ORDINATES

10.	31.	63.	104.	131.	139.	135.	120.	100.	74.
55.	42.	33.	26.	19.	15.	11.	9.	7.	5.
4.	3.	2.	2.	1.	1.	1.	1.	0.	0.

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

198 KP PLAN 5 FOR STATION E7
RUNOFF COMPUTATION 100-YRS STORM IN BASIN

SUBBASIN RUNOFF DATA

183 BA SUBBASIN CHARACTERISTICS
TAREA .15 SUBBASIN AREA

PRECIPITATION DATA

200 PH DEPTHS FOR 0-PERCENT HYPOTHETICAL STORM

..... HYDRO-35			.... TP-40					.... TP-49		
5-MIN	15-MIN	60-MIN	2-HR	3-HR	6-HR	12-HR	24-HR	2-DAY	4-DAY	7-DAY	10-DAY
.39	1.10	4.50	5.65	6.80	8.00	9.80	11.60	.00	.00	.00	.00

STORM AREA = .15

184 LS SCS LOSS RATE
STRTL .30 INITIAL ABSTRACTION
CRVNBR 86.78 CURVE NUMBER
RTIMP .00 PERCENT IMPERVIOUS AREA

185 UD SCS DIMENSIONLESS UNITGRAPH
TLAG .47 LAG

***

UNIT HYDROGRAPH
30 END-OF-PERIOD ORDINATES

10.	31.	63.	104.	131.	139.	135.	120.	100.	74.
55.	42.	33.	26.	19.	15.	11.	9.	7.	5.
4.	3.	2.	2.	1.	1.	1.	1.	0.	0.

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          *            *
201 KK    *     COMB6  *
          *            *
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202 HC          HYDROGRAPH COMBINATION
                      ICOMP           2  NUMBER OF HYDROGRAPHS TO COMBINE
                                                                    ***

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

          **************
          *            *
203 KK    *     CHANN  *
          *            *
          **************

204 KO          OUTPUT CONTROL VARIABLES
                  IPRNT          3  PRINT CONTROL
                  IPLOT          0  PLOT CONTROL
                  QSCAL          0.  HYDROGRAPH PLOT SCALE
                  IPNCH          0  PUNCH COMPUTED HYDROGRAPH
                   IOUT         21  SAVE HYDROGRAPH ON THIS UNIT
                  ISAV1          1  FIRST ORDINATE PUNCHED OR SAVED
                  ISAV2        289  LAST ORDINATE PUNCHED OR SAVED
                 TIMINT       .083  TIME INTERVAL IN HOURS

          HYDROGRAPH ROUTING DATA

205 RD          MUSKINGUM-CUNGE CHANNEL ROUTING
                      L       1089.  CHANNEL LENGTH
                      S       .0050  SLOPE
                      N        .013  CHANNEL ROUGHNESS COEFFICIENT
                     CA         .00  CONTRIBUTING AREA
                  SHAPE        TRAP  CHANNEL SHAPE
                     WD       12.00  BOTTOM WIDTH OR DIAMETER
                      Z        2.00  SIDE SLOPE
                                                    ***
                        COMPUTED MUSKINGUM-CUNGE PARAMETERS
                                COMPUTATION TIME STEP
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ELEMENT	ALPHA	M	DT (MIN)	DX (FT)	PEAK (CFS)	TIME TO PEAK (MIN)	VOLUME (IN)	MAXIMUM CELERITY (FPS)
MAIN	2.04	1.46	1.26	544.50	617.62	751.28	3.32	14.42

INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL

MAIN	2.04	1.46	5.00		616.10	750.00	3.33

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9243E+02 EXCESS= .0000E+00 OUTFLOW= .9237E+02 BASIN STORAGE= .9311E-01 PERCENT ERROR= .0

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HYDROGRAPH AT STATION CHANN
FOR PLAN 1, RATIO = 1.00

	PEAK FLOW	TIME		MAXIMUM AVERAGE FLOW			
				6-HR	24-HR	72-HR	24.00-HR
+	(CFS)	(HR)					
			(CFS)				
+	616.	12.50		149.	47.	47.	47.
			(INCHES)	2.652	3.325	3.325	3.325
			(AC-FT)	74.	92.	92.	92.

CUMULATIVE AREA = .52 SQ MI

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PLAN 2 INPUT DATA FOR STATION CHANN ARE SAME AS FOR PLAN 1

COMPUTED MUSKINGUM-CUNGE PARAMETERS

COMPUTATION TIME STEP

ELEMENT	ALPHA	M	DT (MIN)	DX (FT)	PEAK (CFS)	TIME TO PEAK (MIN)	VOLUME (IN)	MAXIMUM CELERITY (FPS)
MAIN	2.04	1.46	1.09	544.50	974.21	750.28	6.22	16.64

INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL

MAIN	2.04	1.46	5.00		974.10	750.00	6.22	

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1729E+03 EXCESS= .0000E+00 OUTFLOW= .1728E+03 BASIN STORAGE= .1461E+00 PERCENT ERROR= .0

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HYDROGRAPH AT STATION CHANN
FOR PLAN 2, RATIO = 1.00

PEAK FLOW + (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.00-HR
		(CFS)				
+ 974.	12.50		268.	87.	87.	87.
		(INCHES)	4.774	6.219	6.219	6.219
		(AC-FT)	133.	173.	173.	173.

CUMULATIVE AREA = .52 SQ MI

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PLAN 3 INPUT DATA FOR STATION CHANN ARE SAME AS FOR PLAN 1

COMPUTED MUSKINGUM-CUNGE PARAMETERS

COMPUTATION TIME STEP

ELEMENT	ALPHA	M	DT (MIN)	DX (FT)	PEAK (CFS)	TIME TO PEAK (MIN)	VOLUME (IN)	MAXIMUM CELERITY (FPS)
MAIN	2.04	1.46	1.05	544.50	1101.60	746.06	7.57	17.30

INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL

MAIN	2.04	1.46	5.00		1098.75	745.00	7.57	

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2105E+03 EXCESS= .0000E+00 OUTFLOW= .2104E+03 BASIN STORAGE= .1715E+00 PERCENT ERROR= .0

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

HYDROGRAPH AT STATION CHANN
FOR PLAN 3, RATIO = 1.00

PEAK FLOW + (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.00-HR
		(CFS)				
+ 1099.	12.42		328.	106.	106.	106.
		(INCHES)	5.853	7.571	7.571	7.571
		(AC-FT)	163.	210.	210.	210.

CUMULATIVE AREA = .52 SQ MI

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

PLAN 4 INPUT DATA FOR STATION CHANN ARE SAME AS FOR PLAN 1

COMPUTED MUSKINGUM-CUNGE PARAMETERS

COMPUTATION TIME STEP

ELEMENT	ALPHA	M	DT (MIN)	DX (FT)	PEAK (CFS)	TIME TO PEAK (MIN)	VOLUME (IN)	MAXIMUM CELERITY (FPS)
MAIN	2.04	1.46	1.01	544.50	1235.50	745.83	8.83	17.93

INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL

ELEMENT	ALPHA	M	DT (MIN)	DX (FT)	PEAK (CFS)	TIME TO PEAK (MIN)	VOLUME (IN)	MAXIMUM CELERITY (FPS)
MAIN	2.04	1.46	5.00		1233.19	745.00	8.83	

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2456E+03 EXCESS= .0000E+00 OUTFLOW= .2454E+03 BASIN STORAGE= .1955E+00 PERCENT ERROR= .0

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

HYDROGRAPH AT STATION CHANN
FOR PLAN 4, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		6-HR	24-HR	72-HR	24.00-HR
			MAXIMUM AVERAGE FLOW			
+ 1233.	12.42	(CFS)	383.	124.	124.	124.
		(INCHES)	6.841	8.834	8.834	8.834
		(AC-FT)	190.	245.	245.	245.

CUMULATIVE AREA = .52 SQ MI

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

PLAN 5 INPUT DATA FOR STATION CHANN ARE SAME AS FOR PLAN 1

COMPUTED MUSKINGUM-CUNGE PARAMETERS

COMPUTATION TIME STEP

ELEMENT	ALPHA	M	DT (MIN)	DX (FT)	PEAK (CFS)	TIME TO PEAK (MIN)	VOLUME (IN)	MAXIMUM CELERITY (FPS)
MAIN	2.04	1.46	.97	544.50	1399.10	746.41	9.91	18.65

INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL

ELEMENT	ALPHA	M	DT (MIN)	DX (FT)	PEAK (CFS)	TIME TO PEAK (MIN)	VOLUME (IN)	MAXIMUM CELERITY (FPS)
MAIN	2.04	1.46	5.00		1396.23	745.00	9.92	

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2757E+03 EXCESS= .0000E+00 OUTFLOW= .2755E+03 BASIN STORAGE= .1948E+00 PERCENT ERROR= .0

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HYDROGRAPH AT STATION CHANN
FOR PLAN 5, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		6-HR	24-HR	72-HR	24.00-HR
			MAXIMUM AVERAGE FLOW			
+ 1396.	12.42	(CFS)	421.	139.	139.	139.
		(INCHES)	7.505	9.917	9.917	9.917
		(AC-FT)	209.	276.	276.	276.

CUMULATIVE AREA = .52 SQ MI

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206 KK      *             *
            *          E  *
            *             *
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207 KP      PLAN  1 FOR STATION        E
                          RUNOFF COMPUTATION 2-YRS STORM IN BASIN

            SUBBASIN RUNOFF DATA

208 BA        SUBBASIN CHARACTERISTICS
                TAREA          .45  SUBBASIN AREA

              PRECIPITATION DATA

213 PH                                DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                ..... HYDRO-35 .....   ............... TP-40 ...............   ........... TP-49 ...........
              5-MIN  15-MIN  60-MIN     2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                .18     .50    2.40     2.55    2.75    3.30    4.10    4.75     .00     .00     .00     .00

                                        STORM AREA =      .45

209 LS        SCS LOSS RATE
                STRTL          .36  INITIAL ABSTRACTION
                CRVNBR       84.67  CURVE NUMBER
                RTIMP          .00  PERCENT IMPERVIOUS AREA

210 UD        SCS DIMENSIONLESS UNITGRAPH
                TLAG           .60  LAG

                                          ***

                                              UNIT HYDROGRAPH
                                          38 END-OF-PERIOD ORDINATES
               17.     52.    100.    171.    249.    306.    334.    336.    320.    291.
              254.    206.    159.    128.    103.     85.     69.     56.     45.     36.
               30.     24.     19.     16.     13.     10.      8.      7.      5.      4.
                4.      3.      3.      2.      2.      1.      1.      0.
```

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

```
214 KP      PLAN  2 FOR STATION        E
                          RUNOFF COMPUTATION 10-YRS STORM IN BASIN

            SUBBASIN RUNOFF DATA

208 BA        SUBBASIN CHARACTERISTICS
                TAREA          .45  SUBBASIN AREA

              PRECIPITATION DATA

216 PH                                DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                ..... HYDRO-35 .....   ............... TP-40 ...............   ........... TP-49 ...........
              5-MIN  15-MIN  60-MIN     2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                .27     .75    3.35     3.95    4.40    5.40    6.60    7.80     .00     .00     .00     .00

                                        STORM AREA =      .45

209 LS        SCS LOSS RATE
                STRTL          .36  INITIAL ABSTRACTION
                CRVNBR       84.67  CURVE NUMBER
                RTIMP          .00  PERCENT IMPERVIOUS AREA

210 UD        SCS DIMENSIONLESS UNITGRAPH
                TLAG           .60  LAG

                                          ***

                                              UNIT HYDROGRAPH
                                          38 END-OF-PERIOD ORDINATES
               17.     52.    100.    171.    249.    306.    334.    336.    320.    291.
              254.    206.    159.    128.    103.     85.     69.     56.     45.     36.
               30.     24.     19.     16.     13.     10.      8.      7.      5.      4.
                4.      3.      3.      2.      2.      1.      1.      0.
```

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

217 KP PLAN 3 FOR STATION E
RUNOFF COMPUTATION 25-YRS STORM IN BASIN

SUBBASIN RUNOFF DATA

208 BA SUBBASIN CHARACTERISTICS
TAREA .45 SUBBASIN AREA

PRECIPITATION DATA

219 PH DEPTHS FOR 0-PERCENT HYPOTHETICAL STORM

..... HYDRO-35			..... TP-40					..... TP-49			
5-MIN	15-MIN	60-MIN	2-HR	3-HR	6-HR	12-HR	24-HR	2-DAY	4-DAY	7-DAY	10-DAY
.32	.90	3.62	4.65	5.25	6.50	7.70	9.20	.00	.00	.00	.00

STORM AREA = .45

209 LS SCS LOSS RATE
STRTL .36 INITIAL ABSTRACTION
CRVNBR 84.67 CURVE NUMBER
RTIMP .00 PERCENT IMPERVIOUS AREA

210 UD SCS DIMENSIONLESS UNITGRAPH
TLAG .60 LAG

***

UNIT HYDROGRAPH
38 END-OF-PERIOD ORDINATES

17.	52.	100.	171.	249.	306.	334.	336.	320.	291.
254.	206.	159.	128.	103.	85.	69.	56.	45.	36.
30.	24.	19.	16.	13.	10.	8.	7.	5.	4.
4.	3.	3.	2.	2.	1.	1.	0.		

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

220 KP PLAN 4 FOR STATION E
RUNOFF COMPUTATION 50-YRS STORM IN BASIN

SUBBASIN RUNOFF DATA

208 BA SUBBASIN CHARACTERISTICS
TAREA .45 SUBBASIN AREA

PRECIPITATION DATA

222 PH DEPTHS FOR 0-PERCENT HYPOTHETICAL STORM

..... HYDRO-35			..... TP-40					..... TP-49			
5-MIN	15-MIN	60-MIN	2-HR	3-HR	6-HR	12-HR	24-HR	2-DAY	4-DAY	7-DAY	10-DAY
.34	.97	4.00	5.30	5.90	7.50	8.70	10.50	.00	.00	.00	.00

STORM AREA = .45

209 LS SCS LOSS RATE
STRTL .36 INITIAL ABSTRACTION
CRVNBR 84.67 CURVE NUMBER
RTIMP .00 PERCENT IMPERVIOUS AREA

210 UD SCS DIMENSIONLESS UNITGRAPH
TLAG .60 LAG

***

UNIT HYDROGRAPH
38 END-OF-PERIOD ORDINATES

17.	52.	100.	171.	249.	306.	334.	336.	320.	291.
254.	206.	159.	128.	103.	85.	69.	56.	45.	36.
30.	24.	19.	16.	13.	10.	8.	7.	5.	4.
4.	3.	3.	2.	2.	1.	1.	0.		

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

223 KP PLAN 5 FOR STATION E
RUNOFF COMPUTATION 100-YRS STORM IN BASIN

SUBBASIN RUNOFF DATA

208 BA SUBBASIN CHARACTERISTICS

```
                TAREA          .45  SUBBASIN AREA

            PRECIPITATION DATA

225 PH                                DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
            ..... HYDRO-35 .....   ............... TP-40 ...............   ........... TP-49 ...........
            5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
              .39    1.10    4.50    5.65    6.80    8.00    9.80   11.60     .00     .00     .00     .00

                                              STORM AREA =      .45

209 LS          SCS LOSS RATE
                     STRTL          .36  INITIAL ABSTRACTION
                    CRVNBR        84.67  CURVE NUMBER
                     RTIMP          .00  PERCENT IMPERVIOUS AREA

210 UD          SCS DIMENSIONLESS UNITGRAPH
                     TLAG          .60  LAG

                                      ***

                                                UNIT HYDROGRAPH
                                            38 END-OF-PERIOD ORDINATES
                  17.       52.      100.      171.      249.      306.      334.      336.      320.      291.
                 254.      206.      159.      128.      103.       85.       69.       56.       45.       36.
                  30.       24.       19.       16.       13.       10.        8.        7.        5.        4.
                   4.        3.        3.        2.        2.        1.        1.        0.

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

                ***************
                *               *
226 KK          *        E1     *
                *               *
                ***************

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

227 KP          PLAN  1 FOR STATION       E1
                                  RUNOFF COMPUTATION 2-YRS STORM IN BASIN

                SUBBASIN RUNOFF DATA

228 BA            SUBBASIN CHARACTERISTICS
                       TAREA          .01  SUBBASIN AREA

                  PRECIPITATION DATA

233 PH                                DEPTHS FOR   0-PERCENT HYPOTHETICAL STORM
                  ..... HYDRO-35 .....   ............... TP-40 ...............   ........... TP-49 ...........
                  5-MIN  15-MIN  60-MIN    2-HR    3-HR    6-HR   12-HR   24-HR   2-DAY   4-DAY   7-DAY  10-DAY
                    .18     .50    2.40    2.55    2.75    3.30    4.10    4.75     .00     .00     .00     .00

                                              STORM AREA =      .01

229 LS            SCS LOSS RATE
                       STRTL          .41  INITIAL ABSTRACTION
                      CRVNBR        82.92  CURVE NUMBER
                       RTIMP          .00  PERCENT IMPERVIOUS AREA

230 UD            SCS DIMENSIONLESS UNITGRAPH
                       TLAG          .17  LAG

                                      ***

                                                UNIT HYDROGRAPH
                                            12 END-OF-PERIOD ORDINATES
                    6.       17.       17.       11.        5.        3.        2.        1.        0.        0.
                    0.        0.

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

234 KP          PLAN  2 FOR STATION       E1
                                  RUNOFF COMPUTATION 10-YRS STORM IN BASIN

                SUBBASIN RUNOFF DATA
```

228 BA SUBBASIN CHARACTERISTICS
TAREA .01 SUBBASIN AREA

PRECIPITATION DATA

236 PH DEPTHS FOR 0-PERCENT HYPOTHETICAL STORM

..... HYDRO-35			..... TP-40					..... TP-49			
5-MIN	15-MIN	60-MIN	2-HR	3-HR	6-HR	12-HR	24-HR	2-DAY	4-DAY	7-DAY	10-DAY
.27	.75	3.35	3.95	4.40	5.40	6.60	7.80	.00	.00	.00	.00

STORM AREA = .01

229 LS SCS LOSS RATE
STRTL .41 INITIAL ABSTRACTION
CRVNBR 82.92 CURVE NUMBER
RTIMP .00 PERCENT IMPERVIOUS AREA

230 UD SCS DIMENSIONLESS UNITGRAPH
TLAG .17 LAG

***

UNIT HYDROGRAPH
12 END-OF-PERIOD ORDINATES
6. 17. 17. 11. 5. 3. 2. 1. 0. 0.
0. 0.

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

237 KP PLAN 3 FOR STATION E1
RUNOFF COMPUTATION 25-YRS STORM IN BASIN

SUBBASIN RUNOFF DATA

228 BA SUBBASIN CHARACTERISTICS
TAREA .01 SUBBASIN AREA

PRECIPITATION DATA

239 PH DEPTHS FOR 0-PERCENT HYPOTHETICAL STORM

..... HYDRO-35			..... TP-40					..... TP-49			
5-MIN	15-MIN	60-MIN	2-HR	3-HR	6-HR	12-HR	24-HR	2-DAY	4-DAY	7-DAY	10-DAY
.32	.90	3.62	4.65	5.25	6.50	7.70	9.20	.00	.00	.00	.00

STORM AREA = .01

229 LS SCS LOSS RATE
STRTL .41 INITIAL ABSTRACTION
CRVNBR 82.92 CURVE NUMBER
RTIMP .00 PERCENT IMPERVIOUS AREA

230 UD SCS DIMENSIONLESS UNITGRAPH
TLAG .17 LAG

***

UNIT HYDROGRAPH
12 END-OF-PERIOD ORDINATES
6. 17. 17. 11. 5. 3. 2. 1. 0. 0.
0. 0.

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

240 KP PLAN 4 FOR STATION E1
RUNOFF COMPUTATION 50-YRS STORM IN BASIN

SUBBASIN RUNOFF DATA

228 BA SUBBASIN CHARACTERISTICS
TAREA .01 SUBBASIN AREA

PRECIPITATION DATA

12 PH DEPTHS FOR 0-PERCENT HYPOTHETICAL STORM

..... HYDRO-35			..... TP-40					..... TP-49			
5-MIN	15-MIN	60-MIN	2-HR	3-HR	6-HR	12-HR	24-HR	2-DAY	4-DAY	7-DAY	10-DAY
.34	.97	4.00	5.30	5.90	7.50	8.70	10.50	.00	.00	.00	.00

STORM AREA = .01

229 LS SCS LOSS RATE

STRTL	.41	INITIAL ABSTRACTION
CRVNBR	82.92	CURVE NUMBER
RTIMP	.00	PERCENT IMPERVIOUS AREA

230 UD SCS DIMENSIONLESS UNITGRAPH

TLAG	.17	LAG

***

UNIT HYDROGRAPH
12 END-OF-PERIOD ORDINATES

6.	17.	17.	11.	5.	3.	2.	1.	0.	0.		
0.	0.										

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

243 KP PLAN 5 FOR STATION E1
RUNOFF COMPUTATION 100-YRS STORM IN BASIN

SUBBASIN RUNOFF DATA

228 BA SUBBASIN CHARACTERISTICS

TAREA	.01	SUBBASIN AREA

PRECIPITATION DATA

245 PH DEPTHS FOR 0-PERCENT HYPOTHETICAL STORM

..... HYDRO-35			..... TP-40					..... TP-49			
5-MIN	15-MIN	60-MIN	2-HR	3-HR	6-HR	12-HR	24-HR	2-DAY	4-DAY	7-DAY	10-DAY
.39	1.10	4.50	5.65	6.80	8.00	9.80	11.60	.00	.00	.00	.00

STORM AREA = .01

29 LS SCS LOSS RATE

STRTL	.41	INITIAL ABSTRACTION
CRVNBR	82.92	CURVE NUMBER
RTIMP	.00	PERCENT IMPERVIOUS AREA

230 UD SCS DIMENSIONLESS UNITGRAPH

TLAG	.17	LAG

***

UNIT HYDROGRAPH
12 END-OF-PERIOD ORDINATES

6.	17.	17.	11.	5.	3.	2.	1.	0.	0.		
0.	0.										

*** ***

****
* *
246 KK * COMB8 *
* *
****

247 HC HYDROGRAPH COMBINATION

ICOMP	2	NUMBER OF HYDROGRAPHS TO COMBINE

***

*** ***

****
* *
248 KK * P2A *
* *
****

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

249 KP PLAN 1 FOR STATION P2A
RUNOFF COMPUTATION 2-YRS STORM IN BASIN

SUBBASIN RUNOFF DATA

250 BA SUBBASIN CHARACTERISTICS
TAREA .03 SUBBASIN AREA

PRECIPITATION DATA

255 PH DEPTHS FOR 0-PERCENT HYPOTHETICAL STORM

..... HYDRO-35			..... TP-40					..... TP-49			
5-MIN	15-MIN	60-MIN	2-HR	3-HR	6-HR	12-HR	24-HR	2-DAY	4-DAY	7-DAY	10-DAY
.18	.50	2.40	2.55	2.75	3.30	4.10	4.75	.00	.00	.00	.00

STORM AREA = .03

251 LS SCS LOSS RATE
STRTL .15 INITIAL ABSTRACTION
CRVNBR 93.00 CURVE NUMBER
RTIMP .00 PERCENT IMPERVIOUS AREA

252 UD SCS DIMENSIONLESS UNITGRAPH
TLAG .22 LAG

***

UNIT HYDROGRAPH
15 END-OF-PERIOD ORDINATES

10.	35.	48.	42.	27.	16.	10.	6.	3.	2.
1.	1.	0.	0.	0.					

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

256 KP PLAN 2 FOR STATION P2A
RUNOFF COMPUTATION 10-YRS STORM IN BASIN

SUBBASIN RUNOFF DATA

250 BA SUBBASIN CHARACTERISTICS
TAREA .03 SUBBASIN AREA

PRECIPITATION DATA

258 PH DEPTHS FOR 0-PERCENT HYPOTHETICAL STORM

..... HYDRO-35			..... TP-40					..... TP-49			
5-MIN	15-MIN	60-MIN	2-HR	3-HR	6-HR	12-HR	24-HR	2-DAY	4-DAY	7-DAY	10-DAY
.27	.75	3.35	3.95	4.40	5.40	6.60	7.80	.00	.00	.00	.00

STORM AREA = .03

251 LS SCS LOSS RATE
STRTL .15 INITIAL ABSTRACTION
CRVNBR 93.00 CURVE NUMBER
RTIMP .00 PERCENT IMPERVIOUS AREA

252 UD SCS DIMENSIONLESS UNITGRAPH
TLAG .22 LAG

***

UNIT HYDROGRAPH
15 END-OF-PERIOD ORDINATES

10.	35.	48.	42.	27.	16.	10.	6.	3.	2.
1.	1.	0.	0.	0.					

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

259 KP PLAN 3 FOR STATION P2A
RUNOFF COMPUTATION 25-YRS STORM IN BASIN

SUBBASIN RUNOFF DATA

50 BA SUBBASIN CHARACTERISTICS
TAREA .03 SUBBASIN AREA

PRECIPITATION DATA

261 PH

DEPTHS FOR 0-PERCENT HYPOTHETICAL STORM

..... HYDRO-35			..... TP-40					..... TP-49			
5-MIN	15-MIN	60-MIN	2-HR	3-HR	6-HR	12-HR	24-HR	2-DAY	4-DAY	7-DAY	10-DAY
.32	.90	3.62	4.65	5.25	6.50	7.70	9.20	.00	.00	.00	.00

STORM AREA = .03

251 LS SCS LOSS RATE

STRTL	.15	INITIAL ABSTRACTION
CRVNBR	93.00	CURVE NUMBER
RTIMP	.00	PERCENT IMPERVIOUS AREA

252 UD SCS DIMENSIONLESS UNITGRAPH

TLAG	.22	LAG

***

UNIT HYDROGRAPH
15 END-OF-PERIOD ORDINATES

10.	35.	48.	42.	27.	16.	10.	6.	3.	2.
1.	1.	0.	0.	0.					

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

262 KP PLAN 4 FOR STATION P2A
RUNOFF COMPUTATION 50-YRS STORM IN BASIN

SUBBASIN RUNOFF DATA

250 BA SUBBASIN CHARACTERISTICS

TAREA	.03	SUBBASIN AREA

PRECIPITATION DATA

264 PH

DEPTHS FOR 0-PERCENT HYPOTHETICAL STORM

..... HYDRO-35			..... TP-40					..... TP-49			
5-MIN	15-MIN	60-MIN	2-HR	3-HR	6-HR	12-HR	24-HR	2-DAY	4-DAY	7-DAY	10-DAY
.34	.97	4.00	5.30	5.90	7.50	8.70	10.50	.00	.00	.00	.00

STORM AREA = .03

251 LS SCS LOSS RATE

STRTL	.15	INITIAL ABSTRACTION
CRVNBR	93.00	CURVE NUMBER
RTIMP	.00	PERCENT IMPERVIOUS AREA

252 UD SCS DIMENSIONLESS UNITGRAPH

TLAG	.22	LAG

***

UNIT HYDROGRAPH
15 END-OF-PERIOD ORDINATES

10.	35.	48.	42.	27.	16.	10.	6.	3.	2.
1.	1.	0.	0.	0.					

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

265 KP PLAN 5 FOR STATION P2A
RUNOFF COMPUTATION 100-YRS STORM IN BASIN

SUBBASIN RUNOFF DATA

250 BA SUBBASIN CHARACTERISTICS

TAREA	.03	SUBBASIN AREA

PRECIPITATION DATA

267 PH

DEPTHS FOR 0-PERCENT HYPOTHETICAL STORM

..... HYDRO-35			..... TP-40					..... TP-49			
5-MIN	15-MIN	60-MIN	2-HR	3-HR	6-HR	12-HR	24-HR	2-DAY	4-DAY	7-DAY	10-DAY
.39	1.10	4.50	5.65	6.80	8.00	9.80	11.60	.00	.00	.00	.00

STORM AREA = .03

251 LS SCS LOSS RATE

STRTL	.15	INITIAL ABSTRACTION
CRVNBR	93.00	CURVE NUMBER
RTIMP	.00	PERCENT IMPERVIOUS AREA

```
252 UD          SCS DIMENSIONLESS UNITGRAPH
                      TLAG          .22  LAG

                                                        ***

                                              UNIT HYDROGRAPH
                                          15 END-OF-PERIOD ORDINATES
            10.       35.       48.       42.       27.       16.       10.        6.        3.        2.
             1.        1.        0.        0.        0.


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


          **************
          *            *
268 KK    *    PIPE    *
          *            *
          **************

269 KO          OUTPUT CONTROL VARIABLES
                      IPRNT           3  PRINT CONTROL
                      IPLOT           0  PLOT CONTROL
                      QSCAL          0.  HYDROGRAPH PLOT SCALE
                      IPNCH           0  PUNCH COMPUTED HYDROGRAPH
                       IOUT          21  SAVE HYDROGRAPH ON THIS UNIT
                      ISAV1           1  FIRST ORDINATE PUNCHED OR SAVED
                      ISAV2         289  LAST ORDINATE PUNCHED OR SAVED
                     TIMINT        .083  TIME INTERVAL IN HOURS


            HYDROGRAPH ROUTING DATA

270 RD          MUSKINGUM-CUNGE CHANNEL ROUTING
                          L        337.  CHANNEL LENGTH
                          S       .0050  SLOPE
                          N        .013  CHANNEL ROUGHNESS COEFFICIENT
                         CA         .00  CONTRIBUTING AREA
                      SHAPE        CIRC  CHANNEL SHAPE
                         WD        3.50  BOTTOM WIDTH OR DIAMETER
                          Z         .00  SIDE SLOPE

                                                        ***
                               COMPUTED MUSKINGUM-CUNGE PARAMETERS
                                     COMPUTATION TIME STEP
                 ELEMENT     ALPHA       M          DT         DX        PEAK    TIME TO      VOLUME     MAXIMUM
                                                                                   PEAK                  CELERITY
                                                   (MIN)      (FT)       (CFS)    (MIN)        (IN)       (FPS)

                   MAIN       5.39      1.25        .64     337.00      40.56    725.63        3.94       8.79


                                     INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL


                   MAIN       5.39      1.25       5.00                 40.35    725.00        3.94

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5464E+01 EXCESS= .0000E+00 OUTFLOW= .5462E+01 BASIN STORAGE= .1523E-02 PERCENT ERROR=     .0


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

                    HYDROGRAPH AT STATION      PIPE
                      FOR PLAN 1, RATIO = 1.00

 PEAK FLOW      TIME                          MAXIMUM AVERAGE FLOW
                                     6-HR        24-HR        72-HR      24.00-HR
+   (CFS)       (HR)
                          (CFS)
+     40.      12.08                   8.           3.           3.           3.
                       (INCHES)     3.028        3.940        3.940        3.940
                        (AC-FT)        4.           5.           5.           5.

                    CUMULATIVE AREA =      .03 SQ MI
```