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)				
+	28.	12.50		6.	2.	2.	2.
			(INCHES)	2.135	2.566	2.566	2.566
			(AC-FT)	3.	3.	3.	3.

CUMULATIVE AREA = .02 SQ MI

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

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	.71	1.52	5.00	673.67	50.35	725.00	5.28	3.63

INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL

MAIN	.71	1.52	5.00		50.35	725.00	5.28

CONTINUITY SUMMARY (AC-FT) - INFLOW= .6801E+01 EXCESS= .0000E+00 OUTFLOW= .6767E+01 BASIN STORAGE= .6372E-01 PERCENT ERROR= -.4

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

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)				
+	50.	12.08		11.	3.	3.	3.
			(INCHES)	4.172	5.284	5.284	5.284
			(AC-FT)	5.	7.	7.	7.

CUMULATIVE AREA = .02 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	.71	1.52	5.00	673.67	57.21	725.00	6.59	3.81

INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL

MAIN	.71	1.52	5.00		57.21	725.00	6.59

CONTINUITY SUMMARY (AC-FT) - INFLOW= .8478E+01 EXCESS= .0000E+00 OUTFLOW= .8436E+01 BASIN STORAGE= .7492E-01 PERCENT ERROR= -.4

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

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)				
+ 57.	12.08		13.	4.	4.	4.
		(INCHES)	5.215	6.587	6.587	6.587
		(AC-FT)	7.	8.	8.	8.

CUMULATIVE AREA = .02 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	.71	1.52	5.00	673.67	66.58	725.00	7.81	3.99

INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL

MAIN	.71	1.52	5.00		66.58	725.00	7.81

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1006E+02 EXCESS= .0000E+00 OUTFLOW= .1001E+02 BASIN STORAGE= .8537E-01 PERCENT ERROR= -.4

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

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)				
+ 67.	12.08		16.	5.	5.	5.
		(INCHES)	6.189	7.813	7.813	7.813
		(AC-FT)	8.	10.	10.	10.

CUMULATIVE AREA = .02 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	.71	1.52	5.00	673.67	76.83	725.00	8.87	4.19

INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL

MAIN	.71	1.52	5.00		76.83	725.00	8.87

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1141E+02 EXCESS= .0000E+00 OUTFLOW= .1136E+02 BASIN STORAGE= .8529E-01 PERCENT ERROR= -.3

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

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)
+      77.     12.08                 18.          6.          6.          6.
                  (INCHES)         6.917       8.867       8.867       8.867
                   (AC-FT)            9.         11.         11.         11.

                  CUMULATIVE AREA =      .02 SQ MI

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

              **************
              *            *
 56 KK        *    COMB1   *
              *            *
              **************

 57 HC           HYDROGRAPH COMBINATION
                      ICOMP             2  NUMBER OF HYDROGRAPHS TO COMBINE

                                                        ***

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

              **************
              *            *
 58 KK        *        E2  *
              *            *
              **************

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

 59 KP          PLAN  1 FOR STATION        E2
                                 RUNOFF COMPUTATION 2-YRS STORM IN BASIN

                SUBBASIN RUNOFF DATA

 60 BA           SUBBASIN CHARACTERISTICS
                      TAREA           .01  SUBBASIN AREA

                 PRECIPITATION DATA

 65 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

 61 LS           SCS LOSS RATE
                      STRTL           .28  INITIAL ABSTRACTION
                     CRVNBR         87.82  CURVE NUMBER
                      RTIMP           .00  PERCENT IMPERVIOUS AREA

 62 UD           SCS DIMENSIONLESS UNITGRAPH
                       TLAG           .10  LAG

                                                        ***

                                                   UNIT HYDROGRAPH
                                                8 END-OF-PERIOD ORDINATES
               20.        29.        13.         5.         2.         1.         0.         0.

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

 66 KP          PLAN  2 FOR STATION        E2
                                 RUNOFF COMPUTATION 10-YRS STORM IN BASIN

                SUBBASIN RUNOFF DATA

 60 BA           SUBBASIN CHARACTERISTICS
                      TAREA           .01  SUBBASIN AREA

                 PRECIPITATION DATA
```

68 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

61 LS SCS LOSS RATE

STRTL	.28	INITIAL ABSTRACTION
CRVNBR	87.82	CURVE NUMBER
RTIMP	.00	PERCENT IMPERVIOUS AREA

62 UD SCS DIMENSIONLESS UNITGRAPH

TLAG	.10	LAG

***

UNIT HYDROGRAPH
8 END-OF-PERIOD ORDINATES

20.	29.	13.	5.	2.	1.	0.	0.

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

69 KP PLAN 3 FOR STATION E2
RUNOFF COMPUTATION 25-YRS STORM IN BASIN

SUBBASIN RUNOFF DATA

60 BA SUBBASIN CHARACTERISTICS

TAREA	.01	SUBBASIN AREA

PRECIPITATION DATA

71 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

61 LS SCS LOSS RATE

STRTL	.28	INITIAL ABSTRACTION
CRVNBR	87.82	CURVE NUMBER
RTIMP	.00	PERCENT IMPERVIOUS AREA

62 UD SCS DIMENSIONLESS UNITGRAPH

TLAG	.10	LAG

***

UNIT HYDROGRAPH
8 END-OF-PERIOD ORDINATES

20.	29.	13.	5.	2.	1.	0.	0.

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

72 KP PLAN 4 FOR STATION E2
RUNOFF COMPUTATION 50-YRS STORM IN BASIN

SUBBASIN RUNOFF DATA

60 BA SUBBASIN CHARACTERISTICS

TAREA	.01	SUBBASIN AREA

PRECIPITATION DATA

74 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

1 LS SCS LOSS RATE

STRTL	.28	INITIAL ABSTRACTION
CRVNBR	87.82	CURVE NUMBER
RTIMP	.00	PERCENT IMPERVIOUS AREA

62 UD SCS DIMENSIONLESS UNITGRAPH
TLAG .10 LAG

***

UNIT HYDROGRAPH
8 END-OF-PERIOD ORDINATES
20. 29. 13. 5. 2. 1. 0. 0.

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

75 KP PLAN 5 FOR STATION E2
RUNOFF COMPUTATION 100-YRS STORM IN BASIN

SUBBASIN RUNOFF DATA

60 BA SUBBASIN CHARACTERISTICS
TAREA .01 SUBBASIN AREA

PRECIPITATION DATA

77 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

61 LS SCS LOSS RATE
STRTL .28 INITIAL ABSTRACTION
CRVNBR 87.82 CURVE NUMBER
RTIMP .00 PERCENT IMPERVIOUS AREA

62 UD SCS DIMENSIONLESS UNITGRAPH
TLAG .10 LAG

***

UNIT HYDROGRAPH
8 END-OF-PERIOD ORDINATES
20. 29. 13. 5. 2. 1. 0. 0.

*** ***

78 KK
****
* *
* COMB2 *
* *
****

79 HC HYDROGRAPH COMBINATION
ICOMP 2 NUMBER OF HYDROGRAPHS TO COMBINE

***

*** ***

80 KK
****
* *
* CHANN *
* *
****

81 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

82 RD MUSKINGUM-CUNGE CHANNEL ROUTING

L	593.	CHANNEL LENGTH
S	.0060	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	2.23	1.46	1.21	296.50	82.64	726.41	3.07	8.16

INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL

MAIN	2.23	1.46	5.00		80.67	725.00	3.07

CONTINUITY SUMMARY (AC-FT) - INFLOW= .9997E+01 EXCESS= .0000E+00 OUTFLOW= .9991E+01 BASIN STORAGE= .1061E-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)				
+	81.	12.08		16.	5.	5.	5.
			(INCHES)	2.477	3.073	3.073	3.073
			(AC-FT)	8.	10.	10.	10.

CUMULATIVE AREA = .06 SQ MI

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

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	2.23	1.46	1.03	296.50	139.20	725.49	5.92	9.63

INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL

MAIN	2.23	1.46	5.00		138.39	725.00	5.92

CONTINUITY SUMMARY (AC-FT) - INFLOW= .1926E+02 EXCESS= .0000E+00 OUTFLOW= .1925E+02 BASIN STORAGE= .1680E-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)				
+	138.	12.08		30.	10.	10.	10.
			(INCHES)	4.574	5.918	5.918	5.918

(AC-FT)	15.	19.	19.	19.

CUMULATIVE AREA = .06 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	2.23	1.46	.99	296.50	157.36	726.34	7.26	10.00

INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL

MAIN	2.23	1.46	5.00		155.77	725.00	7.26

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2362E+02 EXCESS= .0000E+00 OUTFLOW= .2361E+02 BASIN STORAGE= .1978E-01 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)				
156.	12.08		37.	12.	12.	12.
		(INCHES)	5.644	7.258	7.258	7.258
		(AC-FT)	18.	24.	24.	24.

CUMULATIVE AREA = .06 SQ MI

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

PLAN 4 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	2.23	1.46	.95	296.50	178.62	725.85	8.51	10.40

INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL

MAIN	2.23	1.46	5.00		177.34	725.00	8.51

CONTINUITY SUMMARY (AC-FT) - INFLOW= .2770E+02 EXCESS= .0000E+00 OUTFLOW= .2769E+02 BASIN STORAGE= .2258E-01 PERCENT ERROR= .0

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

HYDROGRAPH AT STATION CHANN
FOR PLAN 4, RATIO = 1.00

PEAK FLOW (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.00-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 (MIN)	DX (FT)	PEAK (CFS)	TIME TO PEAK (MIN)	VOLUME (IN)	MAXIMUM CELERITY (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

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

*** ***

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

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

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.								

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

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.								

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           *              *
103 KK     *     COMB3    *
           *              *
           ****************

104 HC          HYDROGRAPH COMBINATION
                      ICOMP           2  NUMBER OF HYDROGRAPHS TO COMBINE

                                                                ***


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


           ****************
           *              *
105 KK     *     CHANN    *
           *              *
           ****************

106 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        DX        PEAK     TIME TO     VOLUME     MAXIMUM
                                                                                    PEAK                 CELERITY
                                                   (MIN)      (FT)      (CFS)     (MIN)       (IN)       (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

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


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

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	1.24	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

ELEMENT	ALPHA	M	DT (MIN)	DX (FT)	PEAK (CFS)	TIME TO PEAK (MIN)	VOLUME (IN)	MAXIMUM CELERITY (FPS)
			COMPUTATION TIME STEP					
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 (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.00-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

ELEMENT	ALPHA	M	DT (MIN)	DX (FT)	PEAK (CFS)	TIME TO PEAK (MIN)	VOLUME (IN)	MAXIMUM CELERITY (FPS)
			COMPUTATION TIME STEP					
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 (CFS)	TIME (HR)		MAXIMUM AVERAGE FLOW 6-HR	24-HR	72-HR	24.00-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

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

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

 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
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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

:4 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

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*** ***

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 (MIN)	DX (FT)	PEAK (CFS)	TIME TO PEAK (MIN)	VOLUME (IN)	MAXIMUM CELERITY (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	

NTINUITY 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)				
+	264.	12.58		64.	20.	20.	20.
			(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)				
+	423.	12.50		117.	38.	38.	38.
			(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

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133 KK

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*   *
*   P2E *
*   *
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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

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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

***

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

ELEMENT	ALPHA	M	COMPUTATION TIME STEP 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	M	COMPUTATION TIME STEP 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	M	COMPUTATION TIME STEP 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

TINUITY 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	M	COMPUTATION TIME STEP DT (MIN)	DX (FT)	PEAK (CFS)	TIME TO PEAK (MIN)	VOLUME (IN)	MAXIMUM CELERITY (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

TINUITY 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-PERTOD ORDINATES

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

*** ***

176 KK
****
* *
* COMB5 *
* *
****

177 HC HYDROGRAPH COMBINATION
ICOMP 3 NUMBER OF HYDROGRAPHS TO COMBINE

***

*** ***

178 KK
****
* *
* CHANN *
* *
****

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

***

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

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

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)				
+ 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

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

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

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

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

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

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	DX	PEAK	TIME TO	VOLUME	MAXIMUM

```
                                                    PEAK              CELERITY
                       (MIN)       (FT)      (CFS)  (MIN)      (IN)     (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  *
            *            *
            **************


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

 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

                                                       ***

                                                 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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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.

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92 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 *
* *
****

202 HC HYDROGRAPH COMBINATION

ICOMP	2	NUMBER OF HYDROGRAPHS TO COMBINE

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          **************
          *              *
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
                  ELEMENT     ALPHA       M          DT          DX        PEAK     TIME TO PEAK    VOLUME    MAXIMUM CELERITY
                                                     (MIN)       (FT)      (CFS)       (MIN)         (IN)       (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


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

                          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

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

                  PLAN  2 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 PEAK    VOLUME    MAXIMUM CELERITY
                                                     (MIN)       (FT)      (CFS)       (MIN)         (IN)       (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

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

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)				
+ 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

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

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

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	TIME		MAXIMUM AVERAGE FLOW			
			6-HR	24-HR	72-HR	24.00-HR
+ (CFS)	(HR)					
		(CFS)				
+ 1233.	12.42		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)
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

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

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)				
+ 1396.	12.42		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

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          TAREA          .03  SUBBASIN AREA

      PRECIPITATION DATA

29 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

13 LS      SCS LOSS RATE
             STRTL          .28  INITIAL ABSTRACTION
            CRVNBR        87.89  CURVE NUMBER
            RTIMP           .00  PERCENT IMPERVIOUS AREA

14 UD      SCS DIMENSIONLESS UNITGRAPH
              TLAG          .10  LAG

                                                  ***

                                          UNIT HYDROGRAPH
                                      8 END-OF-PERIOD ORDINATES
      61.        91.        40.        15.         6.         2.         1.         0.


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


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          *            *
30 KK     *    CHANN   *
          *            *
          **************

31 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

32 RD       MUSKINGUM-CUNGE CHANNEL ROUTING
                 L       1630.  CHANNEL LENGTH
                 S       .0050  SLOPE
                 N        .035  CHANNEL ROUGHNESS COEFFICIENT
                CA         .00  CONTRIBUTING AREA
             SHAPE        TRAP  CHANNEL SHAPE
                WD       12.00  BOTTOM WIDTH OR DIAMETER
                 Z         .30  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       .71      1.52       5.00     543.33      46.02     725.00        3.40        3.51

                            INTERPOLATED TO SPECIFIED COMPUTATION INTERVAL

           MAIN       .71      1.52       5.00                 46.02     725.00        3.40

CONTINUITY SUMMARY (AC-FT) - INFLOW= .5102E+01 EXCESS= .0000E+00 OUTFLOW= .5080E+01 BASIN STORAGE= .3816E-01 PERCENT ERROR=   -.3


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

               HYDROGRAPH AT STATION    CHANN
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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

.9 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

J9 LS SCS LOSS RATE

STRTL	.36	INITIAL ABSTRACTION
CRVNBR	84.67	CURVE NUMBER
RTIMP	.00	PERCENT IMPERVIOUS AREA