

PAGE 1

// JOB

LOG DRIVE	CART SPEC	CART AVAIL	PHY DRIVE
0000	134A	134A	0000

V2 M11 ACTUAL 16K CONFIG 16K

// XEQ TR20 7

#FILES(1,ISC1),(2,ISC2),(3,ISC3),(4,ISC4),(5,ISC5),(6,ISC6),(70,ND1)

#FILES(7,ISC7),(8,ISC8),(9,ISC9),(10,ISC10),(11,ISC11),(60,ISC60)

HYDROLOGY PROGRAM

MACGREGOR DOWNS

TR-20 ROUTING

EXECUTIVE CONTROL CARD

OPERATION LIST

MACGREGOR DOWNS

C TABLE

VELOCITY INCREMENT = 0.200

8	0.0000	0.0800	0.1800	0.2500	0.3200
8	0.3700	0.4100	0.4500	0.4900	0.5100
8	0.5400	0.5700	0.5900	0.6100	0.6300
8	0.6500	0.6600	0.6700	0.6900	0.7000
8	0.7100	0.7200	0.7300	0.7400	0.7500
8	0.7500	0.7700	0.7700	0.7800	0.7900
8	0.7900	0.8000	0.8100	0.8100	0.8200
8	0.8200	0.8300	0.8300	0.8400	0.8450
8	0.8400	0.8500	0.8500	0.8600	0.8600
8	0.8600	0.8600	0.8700	0.8700	0.8700
8	0.8800	0.8800	0.8800	0.8900	0.8900
8	0.8900	0.8900	0.8900	0.8900	0.9000
8	0.9000	0.9000	0.9000	0.9000	0.9100
8	0.9100	0.9100	0.9100	0.9100	0.9100
8	0.9200	0.9200	0.9200	0.9200	0.9200
8	0.9200	0.9200	0.9200	0.9300	0.9300

9 ENDTBL

CROSS SECTION NO. 3 DRAINAGE AREA = 1.00

	ELEVATION	DISCHARGE	END AREA
8	338.2000	0.0000	0.0000
8	343.7300	530.0001	363.0400
8	345.5600	1000.0001	821.6600
8	346.7800	1280.0002	1329.0500
8	350.1500	2300.0004	3158.1001

9 ENDTBL

CROSS SECTION NO. 5 DRAINAGE AREA = 1.00

	ELEVATION	DISCHARGE	END AREA
8	328.6000	0.0000	0.0000
8	335.2100	950.0001	317.0700
8	336.2200	1650.0002	651.9600
8	337.1800	2100.0004	1019.6400
8	344.4300	4100.0009	4955.5605

9 ENDTBL

STRUCTURE NO. 1

	ELEVATION	DISCHARGE	STORAGE
8	374.7000	0.0000	0.0000
8	375.2000	80.0000	19.7399
8	375.7000	225.0000	40.1699
8	376.2000	413.0000	61.2899
8	376.7000	636.0001	84.0199
8	377.2000	889.0001	107.8999

R	377.7000	1169.0002	132.9199
R	378.2000	1473.0002	159.5499
R	378.7000	1800.0002	187.3299
R	379.2000	2148.0004	216.0199
R	379.7000	2516.0004	246.0999
R	380.2000	3200.0004	277.0899

ENDTBL

STRUCTURE NO. 2

ELEVATION	DISCHARGE	STORAGE
341.8100	0.0000	0.0000

ENDTBL

DIMENSIONLESS HYDROGRAPH - PEAK FACTOR = 483.43

R	0.0000	0.0300	0.1000	0.1900	0.3100
R	0.4700	0.6600	0.8200	0.9300	0.9900
R	1.0000	0.9900	0.9300	0.8600	0.7800
R	0.6800	0.5600	0.4600	0.3900	0.3300
R	0.2800	0.2410	0.2070	0.1740	0.1470
R	0.1260	0.1070	0.0910	0.0770	0.0660
R	0.0550	0.0470	0.0400	0.0340	0.0290
R	0.0250	0.0210	0.0180	0.0150	0.0130
R	0.0110	0.0090	0.0080	0.0070	0.0060
R	0.0050	0.0040	0.0030	0.0020	0.0010
R	0.0000	0.0000	0.0000	0.0000	0.0000

ENDTBL

RAINFALL TABLE NO. 1 TIME INCREMENT = 0.02

R	0.0000	0.0100	0.0200	0.0200	0.0300	0.0400	0.0500	0.0600	0.0700	0.0800
R	0.1000	0.1100	0.1300	0.1400	0.1700	0.1900	0.2200	0.2700	0.3500	0.4400
R	0.5200	0.6000	0.6500	0.6600	0.6800	0.7000	0.7200	0.7400	0.7600	0.7700
R	0.7900	0.8000	0.8200	0.8300	0.8400	0.8500	0.8700	0.8800	0.8900	0.9000
R	0.9100	0.9200	0.9300	0.9400	0.9500	0.9567	0.9633	0.9700	0.9800	0.9900
R	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

ENDTBL

STANDARD CONTROL INSTRUCTIONS

LINE NO.	SUBRTN	XSECTN	STRCT	HYDROGRAPHS			DATA NO. 1	DATA NO. 2	DATA NO. 3	OUTPUT OPTIONS					
				IN1	IN2	OUT				PK	H	E	V	PH	SM
4	SUBRTN														
5	RUNOFF	0	1	0	0	6	2.300	64.000	3.500	1	1	0	1	0	0
6	RESVOR	0	1	6	0	7	374.700	0.000	0.000	1	1	1	1	0	0
7	REACH	3	0	7	0	5	4500.000	0.000	0.000	1	1	0	1	0	0
8	RUNOFF	3	0	0	0	6	0.500	65.000	1.700	1	1	0	1	0	0
9	ADDHYD	3	0	5	6	7	0.000	0.000	0.000	1	1	0	1	0	0
10	SAVMOV	3	0	7	0	5	0.000	0.000	0.000	0	0	0	0	0	0
11	RUNOFF	0	2	0	0	6	2.000	72.000	2.500	1	1	0	1	0	0
12	RESVOR	0	2	6	0	7	341.800	0.000	0.000	1	1	1	1	0	0
13	SAVMOV	0	2	7	0	6	0.000	0.000	0.000	0	0	0	0	0	0
14	ADDHYD	4	0	5	6	7	0.000	0.000	0.000	1	1	0	1	0	0
15	REACH	5	0	7	0	5	3500.000	0.000	0.000	1	1	0	1	0	0
16	RUNOFF	5	0	0	0	6	0.400	78.000	0.700	1	1	0	1	0	0
17	ADDHYD	8	0	5	6	7	0.000	0.000	0.000	1	1	0	1	0	0
18	ENDATA														
20	END OF LISTING														

EXECUTIVE CONTROL CARD
EXECUTIVE CONTROL CARD

OPERATION INCREM,
OPERATION COMPUT,

MAIN TIME INCREMENT= 0.25
FROM XSECTN/STRUCT 07 1 TO XSECTN/STRUCT 87 0

STARTING TIME= 0.00
ALTERNATE NO.= 1

RAIN DEPTH= 6.00
STORM NO.=99

RAIN DURATION= 6.00

RAIN TABLE NO.= 1

SOIL CONDITION= 2

SUBROUTINE RUNOFF STRUCTURE 1

AREA= 2.30 INPUT RUNOFF CURVE= 64.0 TIME OF CONCENTRATION= 3.50
COMPUTED CURVE NO. = 64.0

PEAK TIMES 7.65 PEAK DISCHARGES 1296.624 PEAK ELEVATIONS (RUNOFF)

TIME HYDROGRAPH, TZLRO= 1.75 DELTA T= 0.25 DRAINAGE AREA= 2.30

TIME	DISCHG	0.00	11.69	26.32	54.52	103.09	151.66	237.08	322.49	406.92	490.68
1.75	DISCHG	0.00	11.69	26.32	54.52	103.09	151.66	237.08	322.49	406.92	490.68
4.25	DISCHG	567.67	617.58	667.48	693.86	691.86	709.46	741.45	773.45	800.57	847.69
6.75	DISCHG	1055.44	1176.96	1275.72	1283.52	1291.32	1227.96	1146.83	1051.64	935.38	819.12
9.25	DISCHG	693.03	566.94	472.57	399.33	331.61	282.96	240.30	205.11	172.54	144.91
11.75	DISCHG	123.30	102.08	87.49	72.90	61.52	52.27	43.60	37.26	30.92	26.12
14.25	DISCHG	21.70	17.93	15.14	12.36	10.60	8.84	7.41	6.20	5.02	3.93
16.75	DISCHG	2.83	1.74	0.65	0.00						

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 4.1386 CFS-HRS= 6143.24 ACRE-FT= 507.67

SUBROUTINE RESVOR STRUCTURE 1

SURFACE ELEVATION= 374.70

PEAK TIMES 8.36 PEAK DISCHARGES 1107.456 PEAK ELEVATIONS 377.59

TIME HYDROGRAPH, TZERO= 1.75 DELTA T= 0.25 DRAINAGE AREA= 2.30

TIME	DISCHG	0.00	0.47	1.96	5.05	10.97	20.33	34.32	54.04	79.01	128.84
1.75	DISCHG	0.00	0.47	1.96	5.05	10.97	20.33	34.32	54.04	79.01	128.84
1.75	ELEV	374.70	374.70	374.71	374.73	374.76	374.82	374.91	375.03	375.19	375.36
4.25	DISCHG	183.54	242.79	310.12	371.69	426.05	476.59	522.39	565.65	611.92	667.84
4.25	ELEV	375.55	375.74	375.92	376.09	376.22	376.34	376.44	376.54	376.64	376.76
6.75	DISCHG	733.62	809.15	891.59	972.01	1037.38	1083.45	1104.99	1103.80	1080.94	1036.72
6.75	ELEV	376.89	377.04	377.20	377.34	377.46	377.54	377.58	377.58	377.54	377.46
9.25	DISCHG	980.14	907.57	820.16	752.38	676.04	605.76	542.70	485.80	429.51	382.41
9.25	ELEV	377.36	377.23	377.05	376.92	376.77	376.63	376.49	376.35	376.23	376.11
11.75	DISCHG	340.60	302.22	267.28	235.77	210.71	189.69	170.32	152.58	136.39	121.62
11.75	ELEV	376.00	375.90	375.81	375.72	375.65	375.57	375.51	375.45	375.39	375.34
14.25	DISCHG	108.30	96.21	85.22	77.28	72.08	67.07	62.33	57.87	53.67	49.72
14.25	ELEV	375.29	375.25	375.21	375.18	375.15	375.11	375.08	375.05	375.03	375.01
16.75	DISCHG	45.99	42.48	39.16	36.04	33.14	30.48	28.05	25.78	23.70	21.80
16.75	ELEV	374.98	374.96	374.94	374.92	374.90	374.89	374.87	374.86	374.84	374.83
19.25	DISCHG	20.05	18.44	16.95	15.59	14.34	13.18	12.12	11.15	10.25	9.42
19.25	ELEV	374.82	374.81	374.80	374.79	374.78	374.78	374.77	374.76	374.76	374.75

21.75	DISCHG	8.67	7.97	7.33	6.74	6.20	5.70	5.24	4.82	4.43	4.06
21.75	ELEV	374.75	374.74	374.74	374.74	374.73	374.73	374.73	374.73	374.72	374.72
24.25	DISCHG	3.75	3.45	3.17	2.91	2.68	2.46	2.27	2.08	1.92	1.76
24.25	ELEV	374.72	374.72	374.71	374.71	374.71	374.71	374.71	374.71	374.71	374.71
26.75	DISCHG	1.62	1.49	1.37	1.26	1.16	1.06	0.98	0.90	0.83	0.76
26.75	ELEV	374.71	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70
29.25	DISCHG	0.70	0.64	0.59	0.54	0.50	0.46	0.42	0.39	0.35	0.33
29.25	ELEV	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70
31.75	DISCHG	0.39	0.27	0.25	0.23	0.21	0.19	0.18	0.16	0.15	0.14
31.75	ELEV	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70
34.25	DISCHG	0.13	0.12	0.11	0.10	0.09	0.08	0.07	0.07	0.06	0.06
34.25	ELEV	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70
36.75	DISCHG	0.05	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.02	0.02
36.75	ELEV	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70
39.25	DISCHG	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01
39.25	ELEV	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70
41.75	DISCHG	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
41.75	ELEV	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70
44.25	DISCHG	0.00									
44.25	ELEV	374.70									

TOTAL WATER, IN INCHES ON DRAINAGE AREA = 4.1423 CFS-HRS = 6148.65 ACRE-FT = 508.12

SUBROUTINE PEACH CROSS SECTION 3
 LENGTH = 4600.00 INPUT COEFFICIENT = 0.0000 INPUT ROUTINGS = 0.00
 AVERAGE WATER VELOCITY = 1.256 ROUTING COEFF = 0.4249 NUMBER OF ROUTINGS = 1.72

PEAK TIMES PEAK DISCHARGES PEAK ELEVATIONS
 9.42 1056.665 369.80

TIME	DISCHG	HYDROGRAPH ZERO	1.75	DELTA T	0.25	DRAINAGE AREA	2.30
1.75	DISCHG	0.00	0.00	0.09	1.60	14.75	25.09
4.25	DISCHG	29.63	67.51	135.47	237.06	400.08	450.80
6.75	DISCHG	498.36	569.02	602.43	127.54	929.76	1029.21
9.25	DISCHG	1952.22	1815.30	1640.31	1008.26	770.55	636.88
11.75	DISCHG	512.57	515.30	641.40	367.30	230.69	206.13
14.25	DISCHG	136.29	136.73	147.15	131.29	85.30	71.55
16.75	DISCHG	65.93	65.78	58.29	48.97	37.74	32.00
19.25	DISCHG	29.65	27.09	24.97	21.00	15.40	13.67
21.75	DISCHG	12.15	11.73	10.75	9.17	7.09	6.00
24.25	DISCHG	5.57	5.07	4.50	3.76	2.54	2.09
26.75	DISCHG	2.37	2.19	2.04	1.65	1.07	1.12
29.25	DISCHG	1.03	0.95	0.87	0.60	0.37	0.48

31.75	DISCHG	0.44	0.41	0.37	0.34	0.31	0.29	0.27	0.24	0.22	0.21
34.25	DISCHG	0.19	0.17	0.16	0.15	0.13	0.12	0.11	0.10	0.09	0.09
36.75	DISCHG	0.08	0.07	0.07	0.06	0.05	0.05	0.05	0.04	0.04	0.03
39.25	DISCHG	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.01	0.01
41.75	DISCHG	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00
44.25	DISCHG	0.00	0.00	0.00							

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 4.1421 CFS-HRS= 6148.32 ACRE-FT= 508.09

SUBROUTINE RUNOFF CROSS SECTION 3
 AREA= 0.50 INPUT RUNOFF CURVE= 65.0 TIME OF CONCENTRATION= 1.70
 COMPUTED CURVE NO.= 65.0

PEAK TIMES 3.69 PEAK DISCHARGES 236.099 PEAK ELEVATIONS (RUNOFF)

TIME		HYDROGRAPH, TZERO= 1.50					DELTA T= 0.25		DRAINAGE AREA= 0.50		
1.50	DISCHG	0.00	0.00	1.29	12.31	41.88	91.13	150.31	202.23	231.64	235.67
4.00	DISCHG	224.43	207.50	190.85	176.57	164.00	152.24	141.42	131.75	122.45	112.92
6.50	DISCHG	101.82	87.70	70.62	53.83	39.15	27.51	19.08	13.30	9.26	6.39
9.00	DISCHG	4.48	3.12	2.16	1.47	0.98	0.64	0.40	0.25	0.14	0.06
11.50	DISCHG	0.01	0.00								

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 2.3500 CFS-HRS= 758.31 ACRE-FT= 62.66

SUBROUTINE ADDHYD CROSS SECTION 3
 INPUT HYDROGRAPHS= 5,6 OUTPUT HYDROGRAPH= 7

PEAK TIMES 3.35 PEAK DISCHARGES 251.497 PEAK ELEVATIONS 340.82
 9.41 1059.002 345.81

TIME		HYDROGRAPH, TZERO= 1.50					DELTA T= 0.25		DRAINAGE AREA= 2.80		
1.50	DISCHG	0.00	0.00	1.29	12.31	41.98	91.66	151.91	206.13	239.66	250.47
4.00	DISCHG	249.49	246.93	253.36	271.36	299.43	336.36	379.29	424.95	470.42	519.61
6.50	DISCHG	552.63	587.07	619.65	656.27	700.75	754.85	817.17	882.44	944.25	996.36
9.00	DISCHG	1034.39	1055.35	1057.96	1042.29	1004.27	961.84	903.82	838.67	770.79	702.86
11.50	DISCHG	636.89	573.97	515.30	461.40	415.77	367.30	326.52	290.25	258.50	230.69
14.00	DISCHG	206.13	184.29	164.73	147.15	131.29	116.99	104.48	94.02	85.30	77.92
16.50	DISCHG	71.55	65.93	60.88	56.27	52.02	48.07	44.39	40.95	37.74	34.76
19.00	DISCHG	32.00	29.45	27.09	24.92	22.92	21.38	19.39	17.83	16.40	15.08
21.50	DISCHG	13.87	12.75	11.73	10.79	9.92	9.12	8.39	7.71	7.09	6.52
24.00	DISCHG	6.00	5.52	5.07	4.66	4.29	3.94	3.63	3.33	3.07	2.82
26.50	DISCHG	2.59	2.35	2.19	2.01	1.85	1.70	1.57	1.44	1.32	1.22
29.00	DISCHG	1.17	1.03	0.95	0.87	0.80	0.73	0.67	0.62	0.57	0.52
31.50	DISCHG	0.48	0.44	0.41	0.37	0.34	0.31	0.29	0.27	0.24	0.22
34.00	DISCHG	0.21	0.19	0.17	0.16	0.15	0.13	0.12	0.11	0.10	0.09
36.50	DISCHG	0.09	0.08	0.07	0.06	0.05	0.05	0.05	0.04	0.04	0.03
39.00	DISCHG	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.01	0.01
41.50	DISCHG	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00
44.00	DISCHG	0.00	0.00	0.00	0.00						

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 3.8220 CFS-HRS= 6906.56 ACRE-FT= 370.73

SUBROUTINE SAVMOV CROSS SECTION 3
 INPUT HYDROGRAPH= 7 OUTPUT HYDROGRAPH= 5

SUBROUTINE RUNOFF STRUCTURE 2
 AREA= 2.00 INPUT RUNOFF CURVE= 72.0 TIME OF CONCENTRATION= 2.50
 COMPUTED CURVE NO. = 72.0

PEAK TIMES 4.28 PEAK DISCHARGES 1011.516 PEAK ELEVATIONS (RUNOFF)

TIME	DISCHG	0.00	0.75	3.73	19.40	61.64	139.29	272.99	429.10	617.19	785.40
1.25	DISCHG	0.00	0.75	3.73	19.40	61.64	139.29	272.99	429.10	617.19	785.40
3.75	DISCHG	903.87	975.10	1010.91	991.99	958.85	895.17	834.81	776.89	728.84	681.13
6.25	DISCHG	533.64	584.88	532.91	474.13	410.22	346.63	284.52	231.00	183.03	142.47
8.75	DISCHG	112.65	87.12	70.36	55.10	43.60	34.13	26.20	20.35	15.16	11.88
11.25	DISCHG	9.08	6.93	5.30	3.88	2.97	2.15	1.56	1.09	0.70	0.44
13.75	DISCHG	0.21	0.07	0.00							

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 2.9856 CFS-HRS= 3853.69 ACRE-FT= 318.46

SUBROUTINE RFSVOR STRUCTURE 2
 SURFACE ELEVATION= 341.80

NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES 4.28 PEAK DISCHARGES 1011.516 PEAK ELEVATIONS (NULL)

TIME	DISCHG	0.00	0.75	3.73	19.40	61.64	139.29	272.99	429.10	617.19	785.40
1.25	DISCHG	0.00	0.75	3.73	19.40	61.64	139.29	272.99	429.10	617.19	785.40
3.75	DISCHG	903.87	975.10	1010.91	991.99	958.85	895.17	834.81	776.89	728.84	681.13
6.25	DISCHG	533.64	584.88	532.91	474.13	410.22	346.63	284.52	231.00	183.03	142.47
8.75	DISCHG	112.65	87.12	70.36	55.10	43.60	34.13	26.20	20.35	15.16	11.88
11.25	DISCHG	9.08	6.93	5.30	3.88	2.97	2.15	1.56	1.09	0.70	0.44
13.75	DISCHG	0.21	0.07	0.00							

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 2.9856 CFS-HRS= 3853.69 ACRE-FT= 318.46

SUBROUTINE SAVMOV STRUCTURE 2
 INPUT HYDROGRAPH= 7 OUTPUT HYDROGRAPH= 6

SUBROUTINE ADDHYD CROSS SECTION 4
 INPUT HYDROGRAPHS= 5,6 OUTPUT HYDROGRAPH= 7

DOE TO STORAGE OVERFLOW, THE SUM OF HYDROGRAPHS 5 AND 6 WAS TRUNCATED HERE TO 384 VALUES.

PEAK TIMES 4.30 PEAK DISCHARGES 1254.022 PEAK ELEVATIONS (NULL)
 9.18 1128.600 (NULL)

TIME HYDROGRAPH, TZERO= 1.25 DELTA T= 0.25 DRAINAGE AREA= 4.60

1.25	DISCHG	0.00	0.75	3.74	20.69	73.95	181.28	364.65	581.02	823.33	1025.08
3.75	DISCHG	1154.34	1224.59	1257.8	1245.35	1230.22	1194.60	1171.17	1138.18	1103.79	1151.56
6.25	DISCHG	1147.25	1137.51	1119.99	1093.78	1066.49	1047.38	1039.37	1028.17	1025.48	1026.73
8.75	DISCHG	1109.01	1121.51	1125.71	1113.07	1085.89	1043.41	988.05	924.18	854.04	782.67
11.25	DISCHG	0711.94	643.82	579.28	519.18	464.38	414.33	368.87	327.62	290.96	258.95
13.75	DISCHG	230.90	206.21	184.29	164.73	147.15	131.29	116.99	104.48	94.02	85.30
16.25	DISCHG	77.92	71.55	65.93	60.88	56.27	52.02	48.07	44.39	40.95	37.74
18.75	DISCHG	34.76	32.00	29.45	27.09	24.92	22.92	21.08	19.39	17.83	16.40
21.25	DISCHG	15.08	13.87	12.75	11.73	10.79	9.92	9.12	8.39	7.71	7.09
23.75	DISCHG	6.52	6.00	5.52	5.07	4.66	4.29	3.94	3.63	3.33	3.07
26.75	DISCHG	2.87	2.59	2.36	2.19	2.01	1.85	1.70	1.57	1.44	1.32
28.75	DISCHG	1.22	1.12	1.03	0.95	0.87	0.80	0.73	0.67	0.62	0.57
31.25	DISCHG	0.52	0.48	0.44	0.41	0.37	0.34	0.31	0.29	0.27	0.24
33.75	DISCHG	0.22	0.21	0.19	0.17	0.16	0.15	0.13	0.12	0.11	0.10
36.25	DISCHG	0.09	0.09	0.08	0.07	0.07	0.06	0.05	0.05	0.05	0.04
38.75	DISCHG	0.04	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02
41.25	DISCHG	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00
43.75	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 3.4735 CFS-HRS= 10760.26 ACRE-FT= 889.22

SUBROUTINE REACH CROSS SECTION 5
 LENGTH= 3500.00 INPUT COEFFICIENT= 0.0000 INPUT ROUTINGS= 0.00

AVERAGE WATER VELOCITY= 2.846 ROUTING COEFF= 0.6260 NUMBER OF ROUTINGS= 0.85

PEAK TIMES PEAK DISCHARGES PEAK ELEVATIONS
 4.77 1240.482 335.62
 9.51 1121.902 335.45

TIME HYDROGRAPH, TZERO= 1.25 DELTA T= 0.25 DRAINAGE AREA= 4.80

1.25	DISCHG	0.00	0.00	0.49	2.66	14.66	54.11	138.73	289.05	483.21	709.55
3.75	DISCHG	919.49	1075.75	1174.78	1230.05	1240.23	1233.57	1207.64	1183.23	1166.01	1158.08
6.25	DISCHG	1153.74	1149.42	1141.50	1127.19	1104.96	1079.36	1058.08	1045.63	1047.32	1059.40
8.75	DISCHG	1077.59	1098.49	1113.81	1121.73	1115.97	1095.95	1060.99	1012.46	953.72	867.49
11.25	DISCHG	817.72	747.34	678.46	612.47	550.40	493.16	440.71	392.91	349.47	310.54
13.75	DISCHG	276.21	246.06	219.55	196.09	175.22	156.54	139.74	124.61	111.22	99.77
16.25	DISCHG	90.14	82.01	75.05	68.98	63.59	58.72	54.26	50.15	46.32	42.74
18.75	DISCHG	39.41	36.32	33.44	30.78	28.33	26.06	23.97	22.05	20.26	18.65
21.25	DISCHG	17.15	15.77	14.51	13.34	12.27	11.28	10.37	9.54	8.77	8.07
23.75	DISCHG	7.42	6.82	6.27	5.77	5.30	4.88	4.49	4.12	3.79	3.49
26.25	DISCHG	3.21	2.95	2.71	2.49	2.29	2.11	1.94	1.78	1.64	1.51
28.75	DISCHG	1.38	1.27	1.17	1.08	0.99	0.91	0.84	0.77	0.71	0.65
31.25	DISCHG	0.60	0.55	0.50	0.46	0.43	0.39	0.36	0.32	0.30	0.28
33.75	DISCHG	0.26	0.23	0.21	0.20	0.18	0.17	0.15	0.14	0.13	0.12
36.25	DISCHG	0.11	0.10	0.09	0.08	0.08	0.07	0.06	0.06	0.05	0.05
38.75	DISCHG	0.04	0.04	0.04	0.03	0.03	0.03	0.02	0.02	0.02	0.02
41.25	DISCHG	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00
43.75	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 3.4746 CFS-HRS= 10753.54 ACRE-FT= 889.49

SUBROUTINE RUNOFF CROSS SECTION 5
 AREA= 0.40 INPUT RUNOFF CURVE= 78.0 TIME OF CONCENTRATION= 0.70

COMPUTED CURVE NO. 78.0

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
2.80	522.700	" (RUNOFF)
5.50	1350.595	" (RUNOFF)

TIME	DISCHG	DISCHG	DISCHG	DISCHG	DISCHG	DISCHG	DISCHG	DISCHG	DISCHG	DISCHG	DISCHG
1.00	0.00	0.11	7.68	14.84	46.99	146.50	361.53	577.95	852.94	127.71	
3.50	257.33	211.32	182.91	158.92	146.54	138.79	125.38	117.28	257.75	1216.80	
6.00	1293.39	642.66	294.17	125.78	54.04	23.15	10.07	2.07	0.21	0.01	
8.50	0.00										

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 6.9645 CFS-HRS= 1797.89 ACRE-FT= 148.57

SUBROUTINE ADDHYD CROSS SECTION B
 INPUT HYDROGRAPHS= 5,6 OUTPUT HYDROGRAPH= 7

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
4.65	1380.807	(NULL)
5.89	2511.757	(NULL)
9.51	1121.902	(NULL)

TIME	DISCHG	DISCHG	DISCHG	DISCHG	DISCHG	DISCHG	DISCHG	DISCHG	DISCHG	DISCHG	DISCHG
1.00	0.00	0.11	2.68	15.34	49.65	161.16	415.64	656.71	741.99	811.03	
3.50	966.80	1130.81	1258.27	1333.71	1376.60	1379.03	1358.65	1324.92	1456.17	2385.42	
6.00	2451.49	1796.41	1443.60	1267.29	1181.23	1128.11	1089.44	1060.16	1049.85	1047.84	
8.50	1059.40	1077.59	1098.49	1113.81	1121.73	1115.97	1095.95	1060.99	1012.46	953.72	
11.00	887.40	817.72	747.34	678.46	612.47	550.40	493.16	440.71	392.91	349.47	
13.50	310.54	276.21	246.06	219.55	196.09	175.22	156.54	139.74	124.61	111.22	
16.00	99.77	93.14	82.01	73.05	68.98	63.59	58.72	54.26	50.15	46.82	
18.50	42.74	39.41	36.32	33.44	30.78	28.33	26.06	23.97	22.05	20.28	
21.00	18.65	17.15	15.77	14.51	13.34	12.27	11.28	10.37	9.54	8.77	
23.50	8.07	7.42	6.82	6.27	5.77	5.30	4.88	4.49	4.12	3.79	
26.00	3.49	3.21	2.95	2.71	2.49	2.29	2.11	1.94	1.78	1.64	
28.50	1.91	1.38	1.27	1.17	1.08	0.99	0.91	0.84	0.77	0.71	
31.00	0.65	0.60	0.55	0.50	0.46	0.43	0.39	0.36	0.33	0.30	
33.50	0.28	0.26	0.23	0.21	0.20	0.18	0.17	0.15	0.14	0.13	
36.00	0.12	0.11	0.10	0.09	0.08	0.08	0.07	0.06	0.06	0.05	
38.50	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.02	0.02	0.02	
41.00	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	
43.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 3.7424 CFS-HRS= 12559.25 ACRE-FT= 1037.89

DISCHG 1

STRUCTURE NO.

341.8000	0.0000	0.0000
342.8000	20.0000	0.0000
343.8000	35.0000	0.2300
344.8000	70.0000	0.6900
345.8000	135.0000	1.3800
346.8000	230.0000	2.3000
347.8000	340.0000	4.1300

1	B	348.8000	450.0000	6.6600
2	B	349.8000	610.0001	10.5600
3	B	350.8000	740.0001	15.8400
4	B	351.8000	840.0001	24.3300
5	B	352.8000	930.0001	34.6600
6	B	353.8000	1010.0001	47.7500
7	B	354.8000	1070.0002	61.5200
8	B	355.8000	1140.0002	81.2700
9	B	356.8000	1950.0002	100.3100
10	B	357.8000	2750.0004	129.7100
11	B	358.8000	3950.0004	160.9300
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EXECUTIVE CONTROL CARD

OPERATION LIST

MACGREGOR DOWNS

C. TABLE

VELOCITY INCREMENT = 0.200

B	0.0000	0.0800	0.1800	0.2500	0.3200
B	0.3700	0.4100	0.4500	0.4900	0.5100
B	0.5400	0.5700	0.5900	0.6100	0.6300
B	0.6500	0.6600	0.6700	0.6900	0.7000
B	0.7100	0.7200	0.7300	0.7400	0.7500
B	0.7600	0.7700	0.7700	0.7800	0.7900
B	0.7900	0.8000	0.8100	0.8100	0.8200
B	0.8200	0.8300	0.8300	0.8400	0.8400
B	0.8400	0.8500	0.8500	0.8600	0.8600
B	0.8600	0.8600	0.8700	0.8700	0.8700
B	0.8800	0.8800	0.8800	0.8900	0.8900
B	0.8900	0.8900	0.8900	0.8900	0.9000
B	0.9000	0.9000	0.9000	0.9000	0.9100
B	0.9100	0.9100	0.9100	0.9100	0.9100
B	0.9200	0.9200	0.9200	0.9200	0.9200
B	0.9200	0.9200	0.9200	0.9300	0.9300

9 ENDTBL

CROSS SECTION NO. 3

DRAINAGE AREA = 1.00

	ELEVATION	DISCHARGE	END AREA
B	338.2000	0.0000	0.0000
B	343.7300	530.0001	363.0400
B	345.5600	1000.0001	821.6600
B	346.7800	1280.0002	1329.0500
B	350.1500	2300.0004	3158.1001

9 ENDTBL

CROSS SECTION NO. 5

DRAINAGE AREA = 1.00

	ELEVATION	DISCHARGE	END AREA
B	328.6000	0.0000	0.0000
B	335.2100	950.0001	317.0700
B	336.2200	1650.0002	651.9600
B	337.1800	2100.0004	1019.6400
B	344.4300	4100.0009	4959.5605

9 ENDTBL

STRUCTURE NO. 1

	ELEVATION	DISCHARGE	STORAGE
B	374.7000	0.0000	0.0000
B	375.2000	80.0000	19.7399
B	375.7000	225.0000	40.1699
B	376.2000	413.0000	61.2899
B	376.7000	636.0001	84.0199
B	377.2000	889.0001	107.8999
B	377.7000	1169.0002	132.9199
B	378.2000	1473.0002	159.5499

1	R	378.7000	1800.0002	187.3299	
2	R	379.2000	2148.0006	216.0199	
3	R	379.7000	2516.0004	246.0999	
4	R	380.2000	3200.0004	277.0899	
5	8 ENDTBL				

7	STRUCTURE NO. 2				
9		ELEVATION	DISCHARGE	STORAGE	
10	R	341.8000	0.0000	0.0000	
11	R	342.8000	30.0000	0.0000	
12	R	343.8000	35.0000	0.2299	
13	R	344.8000	70.0000	0.6899	
14	R	345.8000	135.0000	1.3799	
15	R	346.8000	230.0000	2.2999	
16	R	347.8000	340.0000	4.1299	
17	R	348.8000	450.0000	6.6599	
18	R	349.8000	610.0001	10.5599	
19	R	350.8000	740.0001	15.8399	
20	R	351.8000	840.0001	20.9399	
21	R	352.8000	930.0001	24.6599	
22	R	353.8000	1010.0001	27.7500	
23	R	354.8000	1070.0002	31.5199	
24	R	355.8000	1140.0002	31.2699	
25	R	356.8000	1550.0002	103.3099	
26	R	357.8000	2750.0004	129.7099	
27	R	358.8000	3950.0004	160.9299	
28	9 ENDTBL				

30	DIMENSIONLESS HYDROGRAPH - PEAK FACTOR = 483.43						
32	R	0.0000	0.0300	0.1000	0.1900	0.3100	
33	R	0.4700	0.6500	0.8200	0.9300	0.9900	
34	R	1.0000	0.9900	0.9300	0.8600	0.7800	
35	R	0.6800	0.5600	0.4600	0.3900	0.3300	
36	R	0.2800	0.2410	0.2070	0.1740	0.1470	
37	R	0.1260	0.1070	0.0910	0.0770	0.0660	
38	R	0.0550	0.0470	0.0400	0.0340	0.0290	
39	R	0.0250	0.0210	0.0180	0.0150	0.0130	
40	R	0.0110	0.0090	0.0080	0.0070	0.0060	
41	R	0.0050	0.0040	0.0030	0.0020	0.0010	
42	R	0.0000	0.0000	0.0000	0.0000	0.0000	
43	9 ENDTBL						

45	RAINFALL TABLE NO. 1 TIME INCREMENT = 0.02											
47	R	0.0000	0.0100	0.0200	0.0200	0.0300	0.0400	0.0500	0.0500	0.0700	0.0800	
48	R	0.1000	0.1100	0.1300	0.1400	0.1700	0.1900	0.2200	0.2700	0.3500	0.4400	
49	R	0.5200	0.6000	0.6300	0.6600	0.6800	0.7000	0.7200	0.7400	0.7600	0.7700	
50	R	0.7900	0.8000	0.8200	0.8300	0.8400	0.8500	0.8700	0.8800	0.8900	0.9000	
51	R	0.9100	0.9200	0.9300	0.9400	0.9500	0.9567	0.9633	0.9700	0.9800	0.9900	
52	R	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
53	9 ENDTBL											

STANDARD CONTROL INSTRUCTIONS

SUBRTN	XSECTN	STRCT	HYDROGRAPHS			DATA NO.			OUTPUT OPTIONS					
			INI	IN2	OUT	1	2	3	PK	H	E	V	PH	SM
RUNOFF	0	1	0	0	6	2.300	64.000	3.500	1	1	0	1	0	0
RESVOP	0	1	6	0	7	374.700	0.000	0.000	1	1	1	1	0	0
REACH	3	0	7	0	5	4600.000	0.000	0.000	1	1	0	1	0	0
RUNOFF	2	0	0	0	6	0.500	25.000	1.700	1	1	0	1	0	0
ADDHYD	2	0	5	6	7	0.000	0.000	0.000	1	1	0	1	0	0
SAVMOV	3	0	7	0	5	0.000	0.000	0.000	0	0	0	0	0	0
RUNOFF	0	2	0	0	6	2.000	72.000	2.500	1	1	0	1	0	0
RESVGR	0	2	6	0	7	341.800	0.000	0.000	1	1	1	1	0	0
SAVMOV	0	2	7	0	6	0.000	0.000	0.000	0	0	0	0	0	0
ADDHYD	4	0	5	6	7	0.000	0.000	0.000	1	1	0	1	0	0
REACH	5	0	7	0	5	3500.000	0.000	0.000	1	1	0	1	0	0
RUNOFF	5	0	0	0	6	0.400	75.000	0.700	1	1	0	1	0	0
ADDHYD	8	0	5	6	7	0.000	0.000	0.000	1	1	0	1	0	0
ENDATA														

END OF LISTING

EXECUTIVE CONTROL CARD OPERATION INCREMENT MAIN TIME INCREMENT = 0.25
 EXECUTIVE CONTROL CARD OPERATION COMPUTE FROM XSECTN/STRUCT = 07/1 TO XSECTN/STRUCT = 8/0
 STARTING TIME = 0.00 RAIN DEPTH = 6.00 RAIN DURATION = 6.00 RAIN TABLE NO. = 1 SOIL CONDITION = 2
 ALTERNATE NO. = 1 STORM NO. = 99

SUBROUTINE RUNOFF STRUCTURE 1
 AREA = 2.30 INPUT RUNOFF CURVE = 64.0 TIME OF CONCENTRATION = 3.50
 COMPUTED CURVE NO. = 64.0

PEAK TIMES		PEAK DISCHARGES					PEAK ELEVATIONS				
7.65		1296.624					(RUNOFF)				
TIME	DISCHG	0.00	11.69	26.32	54.52	103.09	151.66	237.08	322.49	406.92	490.68
1.75	DISCHG	0.00	11.69	26.32	54.52	103.09	151.66	237.08	322.49	406.92	490.68
4.25	DISCHG	567.67	617.58	667.48	583.86	691.86	709.46	741.45	773.45	860.57	947.69
6.75	DISCHG	1055.44	1176.96	1275.72	1283.52	1291.32	1227.96	1148.83	1051.64	935.38	819.12
9.25	DISCHG	693.03	566.94	472.57	399.33	331.61	285.96	240.30	205.01	172.50	144.51
11.75	DISCHG	123.30	102.08	87.49	72.90	61.52	52.27	42.60	37.26	30.92	26.32
14.25	DISCHG	21.70	17.93	15.14	12.35	10.60	8.86	7.41	6.20	5.02	3.93
16.75	DISCHG	2.83	1.74	0.65	0.00						
TOTAL WATER, IN INCHES ON DRAINAGE AREA = 4.1386						CFS-HRS = 6143.24		ACRE-FI = 2507.67			

SUBROUTINE RESVOR STRUCTURE 1
 SURFACE ELEVATION = 374.70

PEAK TIMES		PEAK DISCHARGES					PEAK ELEVATIONS				
8.36		1107.456					377.59				
TIME	DISCHG	0.00	0.47	1.96	5.05	10.97	20.33	34.32	54.04	79.01	128.84
1.75	DISCHG	0.00	0.47	1.96	5.05	10.97	20.33	34.32	54.04	79.01	128.84
1.75	ELEV	374.70	374.70	374.71	374.73	374.76	374.82	374.91	375.03	375.19	375.36
4.25	DISCHG	183.54	242.79	310.12	371.69	426.05	476.59	522.39	565.65	611.92	667.84
4.25	ELEV	375.55	375.74	375.92	376.09	376.22	376.34	376.44	376.54	376.64	376.76
6.75	DISCHG	733.68	809.15	891.59	972.01	1037.38	1083.45	1104.99	1103.80	1080.94	1038.72
6.75	ELEV	376.89	377.04	377.20	377.34	377.46	377.54	377.58	377.58	377.54	377.46
9.25	DISCHG	980.14	907.57	830.16	752.38	676.04	605.76	542.70	483.80	429.51	382.47
9.25	ELEV	377.36	377.23	377.08	376.92	376.77	376.63	376.49	376.35	376.23	376.11
11.75	DISCHG	340.60	302.22	267.28	235.77	210.71	189.69	170.32	152.58	136.39	121.62
11.75	ELEV	376.00	375.90	375.81	375.72	375.65	375.57	375.51	375.45	375.39	375.34
14.25	DISCHG	108.30	96.21	85.32	77.38	72.02	67.07	62.33	57.87	53.67	49.72
14.25	ELEV	375.29	375.25	375.21	375.18	375.15	375.11	375.08	375.06	375.03	375.01
16.75	DISCHG	45.99	42.48	39.16	36.04	33.14	30.48	28.05	25.78	23.70	21.83
16.75	ELEV	374.98	374.96	374.94	374.92	374.90	374.89	374.87	374.86	374.84	374.83
19.25	DISCHG	20.95	18.44	16.95	15.99	14.39	13.18	12.12	11.15	10.25	9.43
19.25	ELEV	374.82	374.81	374.80	374.79	374.77	374.78	374.77	374.76	374.76	374.75

23	20.75	DISCHG	8.67	7.97	7.33	6.75	6.20	5.70	5.24	4.82	4.43	4.08
24	21.75	ELEV	374.75	374.74	374.74	374.73	374.73	374.73	374.73	374.73	374.73	374.72
25	24.25	DISCHG	3.75	3.45	3.17	2.91	2.66	2.46	2.27	2.08	1.92	1.76
26	24.25	ELEV	374.72	374.72	374.71	374.71	374.71	374.71	374.71	374.71	374.71	374.71
27	26.75	DISCHG	1.62	1.49	1.37	1.26	1.14	1.08	0.98	0.90	0.82	0.76
28	26.75	ELEV	374.71	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70
29	29.25	DISCHG	0.70	0.64	0.59	0.54	0.50	0.46	0.42	0.39	0.35	0.33
30	29.25	ELEV	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70
31	31.75	DISCHG	0.30	0.27	0.25	0.23	0.21	0.19	0.18	0.16	0.15	0.14
32	31.75	ELEV	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70
33	34.25	DISCHG	0.13	0.12	0.11	0.10	0.09	0.08	0.07	0.07	0.06	0.06
34	34.25	ELEV	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70
35	36.75	DISCHG	0.05	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.03	0.03
36	36.75	ELEV	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70
37	39.25	DISCHG	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01
38	39.25	ELEV	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70
39	41.75	DISCHG	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
40	41.75	ELEV	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70
41	44.25	DISCHG	0.00									
42	44.25	ELEV	374.70									

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 4.1423 CFS=HRS= 6148.68 QUACK=FT= 1206.12

SUBROUTINE REACH CROSS SECTION 3
 LENGTH 4600.00 INPUT COEFFICIENT= 0.00005 INPUT ROUTINGS= 0.00
 AVERAGE WATER VELOCITY= 1.256 ROUTING COEFF= 0.4249 NUMBER OF ROUTINGS= 1.72

PEAK TIMES 9.42 PEAK DISCHARGES 1056.863 PEAK ELEVATIONS 345.80

HYDROGRAPH, TZERO= 1.75 DELTA T= 0.25 DRAINAGE AREA= 2.50

43	1.75	DISCHG	0.00	0.00	0.00	0.09	0.52	1.60	3.89	8.04	14.79	25.05
44	4.25	DISCHG	39.43	62.51	94.78	135.42	184.12	237.86	293.20	347.97	400.68	450.80
45	6.75	DISCHG	499.36	549.02	602.43	661.59	727.34	798.09	869.14	934.99	989.96	1029.91
46	9.25	DISCHG	1052.22	1055.50	1040.81	1008.28	961.19	903.41	838.62	770.65	702.80	636.88
47	11.75	DISCHG	573.97	515.30	461.40	412.17	367.30	326.52	290.25	258.50	230.89	206.13
48	14.25	DISCHG	184.29	164.73	147.15	131.29	116.99	104.48	94.02	85.30	77.92	71.55
49	16.75	DISCHG	65.93	60.88	56.27	52.02	48.07	44.39	40.95	37.74	34.75	32.00
50	19.25	DISCHG	29.45	27.09	24.92	22.92	21.08	19.39	17.83	16.40	15.08	13.87
51	21.75	DISCHG	12.75	11.73	10.79	9.92	9.12	8.39	7.71	7.09	6.52	6.00
52	24.25	DISCHG	5.52	5.07	4.66	4.29	3.94	3.63	3.35	3.07	2.82	2.59
53	26.75	DISCHG	2.38	2.19	2.01	1.85	1.70	1.57	1.44	1.32	1.22	1.12
54	29.25	DISCHG	1.03	0.95	0.87	0.80	0.73	0.67	0.62	0.57	0.52	0.48

31.75	DISCHG	0.44	0.41	0.37	0.34	0.31	0.29	0.27	0.24	0.22	0.21
34.25	DISCHG	0.19	0.17	0.16	0.15	0.13	0.12	0.11	0.10	0.09	0.09
36.75	DISCHG	0.08	0.07	0.07	0.06	0.05	0.05	0.05	0.04	0.04	0.03
39.25	DISCHG	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.01	0.01
41.75	DISCHG	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00
44.25	DISCHG	0.00	0.00	0.00							

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 4.1421 CFS-HRS= 6148.32 ACRE-FT= 508.09

SUBROUTINE RUNOFF CROSS SECTION 3
 AREA= 0.50 INPUT RUNOFF CURVE= 65.0 TIME OF CONCENTRATION= 1.70
 COMPUTED CURVE NO.= 65.0

PEAK TIMES 3.69 PEAK DISCHARGES 236.099 PEAK ELEVATIONS (RUNOFF)

HYDROGRAPH, TZERO= 1.50 DELTA T= 0.25 DRAINAGE AREA= 0.50

1.50	DISCHG	0.00	0.00	1.29	12.31	41.88	91.13	150.31	202.23	231.64	236.07
4.00	DISCHG	224.43	207.50	190.85	176.57	164.00	152.24	141.42	131.75	122.45	112.92
6.50	DISCHG	101.82	87.70	70.62	53.83	39.15	27.51	19.08	13.30	9.267	6.39
9.00	DISCHG	4.48	3.12	2.16	1.47	0.98	0.64	0.40	0.25	0.14	0.05
11.50	DISCHG	0.01	0.00								

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 12.5500 CFS-HRS= 758.31 ACRE-FT= 62.60

SUBROUTINE ADDHYD CROSS SECTION 3
 INPUT HYDROGRAPHS= 5.6 OUTPUT HYDROGRAPH= 7

PEAK TIMES 3.85 9.41 PEAK DISCHARGES 251.497 1059.002 PEAK ELEVATIONS 340.82 345.81

HYDROGRAPH, TZERO= 1.50 DELTA T= 0.25 DRAINAGE AREA= 2.80

1.50	DISCHG	0.00	0.00	1.29	12.31	41.98	91.66	151.91	206.13	239.68	250.47
4.00	DISCHG	246.49	246.93	233.36	211.36	200.43	186.36	173.29	160.95	149.42	138.61
6.50	DISCHG	102.63	87.07	69.65	53.27	39.00	27.48	19.17	13.44	9.25	6.36
9.00	DISCHG	1034.39	1055.35	1057.96	1042.29	1009.11	961.84	905.82	838.87	770.70	702.86
11.50	DISCHG	236.89	173.97	119.30	66.40	41.27	26.50	16.52	9.25	4.98	2.69
14.00	DISCHG	206.13	184.29	164.73	147.15	131.22	116.99	104.48	94.02	85.30	77.92
16.50	DISCHG	71.55	65.93	60.80	56.27	52.02	48.07	44.39	40.95	37.74	34.76
19.00	DISCHG	22.60	20.45	17.69	14.97	12.92	11.08	9.59	8.23	7.10	6.08
21.50	DISCHG	13.87	12.75	11.73	10.79	9.92	9.12	8.39	7.71	7.09	6.52
24.00	DISCHG	6.00	5.52	5.07	4.66	4.29	3.94	3.63	3.34	3.07	2.82
26.50	DISCHG	2.59	2.35	2.19	2.01	1.85	1.70	1.57	1.44	1.32	1.22
29.00	DISCHG	1.12	1.03	0.95	0.87	0.80	0.73	0.67	0.62	0.57	0.52
31.50	DISCHG	0.43	0.44	0.41	0.37	0.34	0.31	0.29	0.27	0.24	0.22
34.00	DISCHG	0.21	0.19	0.17	0.16	0.15	0.13	0.12	0.11	0.10	0.09
36.50	DISCHG	0.09	0.08	0.07	0.07	0.06	0.05	0.05	0.04	0.04	0.03
39.00	DISCHG	0.03	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.01	0.01
41.50	DISCHG	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00
44.00	DISCHG	0.00	0.00	0.00	0.00						

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 3.6220 CFS-HRS= 6906.26 ACRE-FT= 570.75

SUBROUTINE SAVMOV CROSS SECTION 2
 INPUT HYDROGRAPH= 7 OUTPUT HYDROGRAPH= 5

SUBROUTINE RUNOFF STRUCTURE 2
 AREA= 2.00 INPUT RUNOFF CURVE= 72.0 TIME OF CONCENTRATION= 2.50
 COMPUTED CURVE NO. = 72.0

PEAK TIMES PEAK DISCHARGES PEAK ELEVATIONS
 4.28 1011.516 (RUNOFF)

TIME HYDROGRAPH, TZERO= 1.25 DELTA T= 0.25 DRAINAGE AREA= 2.00

1.25	DISCHG	0.00	0.75	3.73	19.40	61.61	139.29	272.79	429.10	617.00	785.40
3.75	DISCHG	953.87	975.10	1010.91	991.99	758.15	489.17	237.51	78.89	28.54	6.11
6.25	DISCHG	633.64	584.88	532.91	474.13	410.22	346.63	284.52	231.00	183.09	142.47
8.75	DISCHG	112.65	87.12	70.36	55.10	43.60	34.13	26.20	20.35	15.16	11.88
11.25	DISCHG	9.08	6.83	5.30	3.88	2.97	2.15	1.56	1.09	0.70	0.44
13.75	DISCHG	0.21	0.00	0.00							

TOTAL WATER, SIN INCHES ON DRAINAGE AREA= 2.9855 CFS-HRS= 3823.69 ACRE-FT= 318.46

SUBROUTINE RESVOR STRUCTURE 2
 SURFACE ELEVATION= 341.80

PEAK TIMES PEAK DISCHARGES PEAK ELEVATIONS

5.06	883.447	342.28
11.18	12.115	342.40
11.71	8.143	342.20
12.23	5.744	342.08
12.73	4.313	342.01
13.24	3.449	341.97
13.74	2.950	341.94
55.75	2.873	341.94
85.25	2.812	341.94
90.75	2.843	341.94

TIME HYDROGRAPH, TZERO= 1.25 DELTA T= 0.25 DRAINAGE AREA= 2.00

1.25	DISCHG	0.00	0.75	3.73	19.40	36.92	95.61	207.86	323.27	450.35	599.74
1.25	ELEV	341.80	341.83	341.98	342.77	343.85	345.19	346.56	347.64	348.80	349.73
3.75	DISCHG	702.33	771.30	819.40	854.32	874.37	883.06	880.08	867.98	849.14	820.73
3.75	ELEV	350.51	351.11	351.59	351.95	352.18	352.27	352.24	352.11	351.90	351.60
6.25	DISCHG	785.29	747.10	676.95	605.03	508.08	430.10	359.11	285.97	223.91	160.78
6.25	ELEV	351.25	350.87	350.31	349.76	349.16	348.61	347.97	347.30	346.73	346.07
8.75	DISCHG	126.86	100.25	79.03	63.71	51.07	40.33	31.69	24.92	17.90	9.14
8.75	ELEV	345.67	345.26	344.93	344.62	344.25	343.95	343.57	343.12	342.69	342.25
11.25	DISCHG	11.82	4.19	8.03	1.14	5.71	-0.57	4.30	-1.64	3.44	-2.29
11.25	ELEV	342.39	342.00	342.20	341.85	342.08	341.77	342.01	341.71	341.97	341.68
13.75	DISCHG	2.95	-2.66	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.75	-2.73
13.75	ELEV	341.54	341.66	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66

61.25	ELEV	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66
63.75	DISCHG	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73
63.75	ELEV	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66
66.25	DISCHG	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73
66.25	ELEV	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66
68.75	DISCHG	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73
68.75	ELEV	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66
71.25	DISCHG	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73
71.25	ELEV	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66
73.75	DISCHG	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73
73.75	ELEV	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66
76.25	DISCHG	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73
76.25	ELEV	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66
78.75	DISCHG	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73
78.75	ELEV	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66
81.25	DISCHG	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73
81.25	ELEV	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66
83.75	DISCHG	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73
83.75	ELEV	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66
86.25	DISCHG	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73
86.25	ELEV	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66
88.75	DISCHG	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73
88.75	ELEV	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66
91.25	DISCHG	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73
91.25	ELEV	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66
93.75	DISCHG	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73
93.75	ELEV	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66
96.25	DISCHG	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73
96.25	ELEV	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 2.9277 CFS-HRS= 3778.90 ACRE-FT= 312.26

SUBROUTINE SAVMOV STRUCTURE 2
 INPUT HYDROGRAPH= 7 OUTPUT HYDROGRAPH= 60

SUBROUTINE ADDHYD CROSS SECTION 4
 INPUT HYDROGRAPHS= 5,6 OUTPUT HYDROGRAPH= 7

DUE TO STORAGE OVERFLOW, THE SUM OF HYDROGRAPHS 6 AND 5 WAS TRUNCATED HERE TO 384 VALUES.

PEAK TIMES

PEAK DISCHARGES

PEAK ELEVATIONS

6.38
8.20
9.11
17.14
17.66
18.17
18.58
19.19
19.70
20.20

1303.942
1106.567
1135.981
59.860
51.466
44.220
37.869
32.471
27.882
23.949

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TIME HYDROGRAPH, TZERO= 1.25 DELTA T= 0.25 DRAINAGE AREA= 4.80

TIME	DISCHG	0.00	0.75	1.50	2.25	3.00	3.75	4.50	5.25	6.00	6.75	7.50
1.25	DISCHG	0.00	0.75	2.74	20.69	49.23	137.60	299.54	475.19	656.49	839.43	1021.16
3.75	DISCHG	952.80	1020.79	1066.34	1107.74	1145.73	1182.50	1216.44	1247.28	1274.09	1291.16	
6.25	DISCHG	1298.90	1299.74	1264.02	1224.69	1164.35	1130.85	1113.96	1103.14	1106.36	1105.04	
8.75	DISCHG	1123.23	1134.64	1134.38	1121.68	1093.36	1049.60	993.54	928.74	856.78	779.94	
11.25	DISCHG	714.68	641.09	582.01	516.44	467.12	411.59	371.61	324.88	293.70	256.21	
13.75	DISCHG	233.64	203.47	187.03	161.99	149.88	128.56	119.75	121.75	96.76	82.56	
16.25	DISCHG	80.66	68.81	68.67	58.14	59.01	49.28	50.81	41.63	43.68	35.00	
18.75	DISCHG	37.50	29.26	32.18	24.39	27.66	20.19	23.82	16.65	20.57	13.66	
21.25	DISCHG	17.82	11.13	15.49	8.99	13.52	7.18	11.86	5.65	10.45	4.35	
23.75	DISCHG	9.26	3.24	8.25	2.33	7.40	1.55	6.68	0.89	6.07	0.33	
26.25	DISCHG	5.56	-0.14	5.12	-0.54	4.75	-0.88	4.44	-1.16	4.18	-1.40	
28.75	DISCHG	3.95	-1.61	3.77	-1.78	3.61	-1.93	3.47	-2.05	3.36	-2.16	
31.25	DISCHG	3.26	-2.25	3.18	-2.32	3.11	-2.38	3.05	-2.44	3.00	-2.78	
33.75	DISCHG	2.96	-2.52	2.95	-2.55	2.90	-2.53	2.87	-2.51	2.82	-2.62	
36.25	DISCHG	2.83	-2.64	2.82	-2.66	2.80	-2.67	2.79	-2.68	2.78	-2.69	
38.75	DISCHG	2.78	-2.69	2.77	-2.70	2.76	-2.70	2.76	-2.71	2.75	-2.71	
41.25	DISCHG	2.75	-2.72	2.75	-2.72	2.75	-2.72	2.74	-2.72	2.74	-2.72	
43.75	DISCHG	2.74	-2.73	2.74	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	
46.25	DISCHG	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	
48.75	DISCHG	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	
51.25	DISCHG	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	
53.75	DISCHG	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	
56.25	DISCHG	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	
58.75	DISCHG	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	
61.25	DISCHG	2.73	-2.73	2.73	-2.73	2.72	-2.73	2.73	-2.73	2.73	-2.73	
63.75	DISCHG	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	
66.25	DISCHG	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	
68.75	DISCHG	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	
71.25	DISCHG	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	
73.75	DISCHG	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	
76.25	DISCHG	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	
78.75	DISCHG	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	
81.25	DISCHG	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	
83.75	DISCHG	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	
86.25	DISCHG	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	
88.75	DISCHG	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	
91.25	DISCHG	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	
93.75	DISCHG	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	
96.25	DISCHG	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	2.73	-2.73	

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 3.4493 CFS-HRS= 10685.43 ACRE-FT= 583.04

SUBROUTINE REACH CROSS SECTION 5
 LENGTH= 3500.00 INPUT COEFFICIENT= 0.0000 INPUT ROUTINGS= 0.00

AVERAGE WATER VELOCITY= 42.833 ROUTING COEFF= 0.6249 NUMBER OF ROUTINGS= 0.85

PEAK TIMES PEAK DISCHARGES PLAK ELEVATIONS

6.66	1298.895	335.71
9.45	1132.640	325.47
19.37	32.782	328.82
19.89	27.895	328.79
20.41	23.732	328.76
20.92	20.276	328.74
21.43	17.327	328.72
21.94	14.833	328.70
22.45	12.728	328.68
22.96	10.976	328.67

TIME HYDROGRAPH TZERO= 1.25 DELTA T= 0.25 DRAINAGE AREA= 4.80

1.25	DISCHG	0.00	0.00	0.49	2.65	14.62	37.08	103.94	233.71	395.92	568.12
3.75	DISCHG	748.15	883.92	974.73	1035.51	1083.43	1124.77	1163.07	1198.48	1230.88	1259.54
6.25	DISCHG	1280.52	1292.72	1297.37	1275.25	1241.70	1190.38	1150.09	1126.39	1110.86	1107.51
8.75	DISCHG	1106.00	1117.43	1128.85	1132.52	1125.33	1104.12	1067.95	1018.58	958.98	891.17
11.25	DISCHG	817.37	749.24	677.48	614.14	549.32	494.78	439.58	394.48	348.30	312.07
13.75	DISCHG	575.01	247.56	218.31	197.55	173.96	157.99	138.46	126.03	109.92	101.19
16.25	DISCHG	388.83	83.41	73.72	70.37	62.25	60.10	52.92	52.52	44.97	44.12
18.75	DISCHG	38.07	37.69	32.10	32.15	26.98	27.43	22.62	23.42	18.94	20.02
21.25	DISCHG	15.80	17.14	13.15	14.70	10.91	12.64	9.92	10.90	7.42	9.43
23.75	DISCHG	6.06	8.18	4.92	7.13	3.95	6.24	3.11	5.49	2.44	4.85
26.25	DISCHG	1.85	4.31	1.35	3.85	0.93	3.47	0.51	3.14	0.26	2.87
28.75	DISCHG	0.03	2.63	-0.18	2.44	-0.36	2.27	-0.51	2.13	-0.64	2.01
31.25	DISCHG	-0.75	1.91	-0.85	1.82	-0.92	1.75	-0.91	1.69	-1.05	1.64
33.75	DISCHG	-1.09	1.59	-1.13	1.56	-1.17	1.53	-1.20	1.50	-1.22	1.48
36.25	DISCHG	-1.24	1.46	-1.26	1.44	-1.27	1.43	-1.29	1.42	-1.30	1.41
38.75	DISCHG	-1.31	1.40	-1.31	1.39	-1.32	1.39	-1.32	1.38	-1.33	1.38
41.25	DISCHG	-1.33	1.37	-1.34	1.37	-1.34	1.37	-1.34	1.37	-1.34	1.36
43.75	DISCHG	-1.34	1.36	-1.35	1.36	-1.35	1.36	-1.35	1.35	-1.35	1.35
46.25	DISCHG	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35
48.75	DISCHG	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35
51.25	DISCHG	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35
53.75	DISCHG	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35
56.25	DISCHG	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35
58.75	DISCHG	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35
61.25	DISCHG	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35
63.75	DISCHG	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35
66.25	DISCHG	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35
68.75	DISCHG	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35
71.25	DISCHG	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35
73.75	DISCHG	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35
76.25	DISCHG	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35
78.75	DISCHG	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35
81.25	DISCHG	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35
83.75	DISCHG	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35
86.25	DISCHG	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35
88.75	DISCHG	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35
91.25	DISCHG	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35
93.75	DISCHG	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35

96.25 DISCHG -1.35 1.35 -1.35 1.35
 TOTAL WATER, IN INCHES ON DRAINAGE AREA= 3.4865 CFS-HRS= 10800.43 ACRE-FT= 892.57

SUBROUTINE RUNOFF CROSS SECTION 5
 AREA= 0.40 INPUT RUNOFF CURVE= 78.0 TIME OF CONCENTRATION= 0.70
 COMPUTED CURVE NO= 78.0

PEAK TIMES PEAK DISCHARGES PEAK ELEVATIONS
 2.80 522.700 (RUNOFF)
 5.90 1350.595 (RUNOFF)

TIME	DISCHG	HYDROGRAPH, T/ZERO= 1.00	DELTA T= 0.25	DRAINAGE AREA= 0.40
1.00	0.00	0.11 2.68 14.84 46.99 146.50 361.53 657.98 952.94 1218.80		
3.50	DISCHG 257.33	211.32 182.51 158.92 146.54 138.79 125.08 117.28 267.79 1218.80		
6.00	DISCHG 1293.39	642.66 294.17 125.78 54.04 23.15 10.07 2.07 0.21 0.01		
8.50	DISCHG 0.00			

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 6.9645 CFS-HRS= 1797.89 ACRE-FT= 571

SUBROUTINE ADDHYD CROSS SECTION 8
 INPUT HYDROGRAPHS= 5,6 OUTPUT HYDROGRAPH= 7

DUE TO STORAGE OVERFLOW, THE SUM OF HYDROGRAPHS 6 AND 5 WAS TRUNCATED HERE TO 384 VALUES.

PEAK TIMES PEAK DISCHARGES PEAK ELEVATIONS
 5.91 2600.221 (NULL)
 9.45 1132.640 (NULL)
 19.37 32.782 (NULL)
 19.89 27.895 (NULL)
 20.41 23.732 (NULL)
 20.92 20.276 (NULL)
 21.43 17.327 (NULL)
 21.94 14.833 (NULL)
 22.45 12.728 (NULL)
 22.96 10.976 (NULL)

TIME	DISCHG	HYDROGRAPH, T/ZERO= 1.00	DELTA T= 0.25	DRAINAGE AREA= 5.19
1.00	DISCHG 0.00	0.11 2.68 15.34 49.65 161.12 399.12 621.93 686.66 721.64		
3.50	DISCHG 825.46	959.45 1066.44 1133.66 1182.05 1222.23 1249.85 1280.35 1466.28 2449.66		
6.00	DISCHG 2552.94	1923.19 1586.89 1423.16 1329.29 1264.86 1200.46 1152.96 1126.60 1110.28		
8.50	DISCHG 1107.91	1106.00 1117.43 1128.85 1132.52 1125.33 1104.12 1067.95 1018.58 954.98		
11.00	DISCHG 891.17	817.37 749.24 677.48 614.14 549.32 494.78 439.58 394.48 348.30		
13.50	DISCHG 312.07	275.01 247.56 218.31 197.55 173.96 157.99 138.46 126.03 105.92		
16.00	DISCHG 101.19	98.83 83.41 73.72 70.37 62.25 60.10 52.92 51.52 44.97		
18.50	DISCHG 44.12	38.07 37.69 32.10 32.15 26.98 27.43 22.62 23.42 18.93		
21.00	DISCHG 20.02	15.80 17.14 13.15 14.70 10.91 12.64 9.02 10.90 7.42		
23.50	DISCHG 9.43	6.06 8.18 4.92 7.13 3.95 6.24 3.13 5.49 2.44		
26.00	DISCHG 4.85	1.85 4.31 1.35 3.85 0.95 3.47 0.58 3.14 0.26		
28.50	DISCHG 2.87	0.03 2.63 -0.18 2.44 -0.36 2.27 -0.51 2.13 -0.64		
31.00	DISCHG 2.01	-0.75 1.91 -0.85 1.82 -0.92 1.75 -0.99 1.69 -1.05		
33.50	DISCHG 1.64	-1.09 1.59 -1.13 1.56 -1.17 1.53 -1.20 1.50 -1.22		
36.00	DISCHG 1.48	-1.24 1.46 -1.26 1.44 -1.27 1.43 -1.29 1.42 -1.30		
38.50	DISCHG 1.41	-1.31 1.40 -1.31 1.39 -1.32 1.39 -1.32 1.38 -1.33		

41.00	DISCHG	1.38	-1.33	1.37	-1.34	1.37	-1.34	1.37	-1.34	1.37	-1.34
43.50	DISCHG	1.36	-1.34	1.36	-1.35	1.36	-1.35	1.35	-1.35	1.35	-1.35
46.00	DISCHG	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35
48.50	DISCHG	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35
51.00	DISCHG	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35
53.50	DISCHG	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35
56.00	DISCHG	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35
58.50	DISCHG	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35
61.00	DISCHG	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35
63.50	DISCHG	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35
66.00	DISCHG	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35
68.50	DISCHG	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35
71.00	DISCHG	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35
73.50	DISCHG	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35
76.00	DISCHG	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35
78.50	DISCHG	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35
81.00	DISCHG	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35
83.50	DISCHG	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35
86.00	DISCHG	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35
88.50	DISCHG	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35
91.00	DISCHG	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35
93.50	DISCHG	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35
96.00	DISCHG	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35	1.35	-1.35

TOTAL WATER, IN INCHES ON DRAINAGE AREA: 3.7513 CFS-HRS= 12522.87 ACRE-FT= 1034.84

ENDCMP 1

24 HOUR

HYDROLOGY PROGRAM

MACGREGOR DOWNS
EXECUTIVE CONTROL CARD

OPERATION LIS

TR-20 ROUTING

MACGREGOR DOWNS

G TABLE VELOCITY INCREMENT = 0.200

11	B	0.0000	0.0800	0.1800	0.2500	0.3200
12	B	0.3700	0.4100	0.4500	0.4900	0.5100
13	B	0.5400	0.5700	0.5900	0.6100	0.6300
14	B	0.6500	0.6600	0.6700	0.6900	0.7000
15	B	0.7100	0.7200	0.7300	0.7400	0.7500
16	B	0.7600	0.7700	0.7700	0.7800	0.7900
17	B	0.7900	0.8000	0.8100	0.8100	0.8200
18	B	0.8200	0.8300	0.8300	0.8400	0.8400
19	B	0.8400	0.8500	0.8500	0.8600	0.8600
20	B	0.8600	0.8600	0.8700	0.8700	0.8700
21	B	0.8800	0.8800	0.8800	0.8900	0.8900
22	B	0.8900	0.8900	0.8900	0.8900	0.9000
23	B	0.9000	0.9000	0.9000	0.9000	0.9100
24	B	0.9100	0.9100	0.9100	0.9100	0.9100
25	B	0.9200	0.9200	0.9200	0.9200	0.9200
26	B	0.9200	0.9200	0.9200	0.9300	0.9300
27	9 ENDTBL					

CROSS SECTION NO. 3 DRAINAGE AREA = 1.00

		ELEVATION	DISCHARGE	END AREA
21	P	338.2000	0.0000	0.0000
22	B	343.7300	530.0001	363.0400
23	B	345.5600	1000.0001	821.6600
24	B	346.7800	1280.0002	1329.0500
25	B	350.1500	2300.0004	3158.1001
26	9 ENDTBL			

CROSS SECTION NO. 5 DRAINAGE AREA = 1.00

		ELEVATION	DISCHARGE	END AREA
41	B	328.6000	0.0000	0.0000
42	B	335.2100	950.0001	317.0700
43	B	336.2200	1650.0002	651.9600
44	B	337.1800	2100.0004	1019.6400
45	B	344.4300	4100.0009	4955.5605
46	9 ENDTBL			

STRUCTURE NO. 1

		ELEVATION	DISCHARGE	STORAGE
51	B	374.7000	0.0000	0.0000
52	B	375.2000	80.0000	19.7399
53	B	375.7000	225.0000	40.1699
54	B	376.2000	413.0000	61.2899
55	B	376.7000	636.0001	84.0199
56	B	377.2000	889.0001	107.8999

8	377.7000	1169.0002	132.9199
8	378.2000	1173.0002	159.5495
8	378.7000	1180.0002	187.3299
8	379.2000	2148.0004	216.0199
8	379.7000	2516.0004	246.0999
8	380.2000	3200.0004	277.0899

9 ENDTBL

STRUCTURE NO. 2

ELEVATION DISCHARGE STORAGE

8	341.8000	0.0000	0.6000
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9 ENDTBL

DIMENSIONLESS HYDROGRAPH - PEAK FACTOR = 483.73

8	0.0000	0.0300	0.1000	0.1900	0.3100
8	0.4700	0.5600	0.8200	0.9300	0.9900
8	1.0000	0.9900	0.9300	0.8600	0.7800
8	0.6800	0.5600	0.4600	0.3900	0.3300
8	0.2800	0.2410	0.2070	0.1740	0.1470
8	0.1260	0.1070	0.0910	0.0770	0.0660
8	0.0550	0.0470	0.0400	0.0340	0.0290
8	0.0250	0.0210	0.0180	0.0150	0.0130
8	0.0110	0.0090	0.0080	0.0070	0.0060
8	0.0050	0.0040	0.0030	0.0020	0.0010
8	0.0000	0.0000	0.0000	0.0000	0.0000

9 ENDTBL

RAINFALL TABLE NO. 1 TIME INCREMENT = 0.30

8	0.0000	0.0050	0.0110	0.0160	0.0220	0.0280	0.0350	0.0410	0.0480	0.0560
8	0.0630	0.0710	0.0800	0.0890	0.0980	0.1090	0.1200	0.1330	0.1470	0.1630
8	0.1810	0.2040	0.2350	0.2630	0.6630	0.7350	0.7720	0.7990	0.8200	0.8380
8	0.8540	0.8680	0.8800	0.8910	0.9020	0.9120	0.9210	0.9290	0.9370	0.9450
8	0.9520	0.9590	0.9650	0.9720	0.9780	0.9840	0.9890	0.9950	1.0000	1.0000

9 ENDTBL

STANDARD CONTROL INSTRUCTIONS

SUBRTN	XSECTN	STRCT	HYDROGRAPHS			DATA NO.			OUTPUT OPTIONS					
			IN1	IN2	OUT	1	2	3	PK	H	E	V	PH	SM
RUNOFF	0	1	0	0	6	2.300	64.000	3.500	1	1	0	1	0	0
RESVOR	0	1	6	0	7	374.700	0.000	0.000	1	1	1	1	0	0
REACH	3	0	7	0	5	4600.000	0.000	0.000	1	1	0	1	0	0
RUNOFF	3	0	0	0	6	0.500	65.000	1.700	1	1	0	1	0	0
ADDHYD	3	0	5	6	7	0.000	0.000	0.000	1	1	0	1	0	0
SAVMOV	3	0	7	0	5	0.000	0.000	0.000	0	0	0	0	0	0
RUNOFF	0	2	0	0	6	2.000	72.000	2.500	1	1	0	1	0	0
RESVOR	0	2	6	0	7	341.800	0.000	0.000	1	1	1	1	0	0
SAVMOV	0	2	7	0	6	0.000	0.000	0.000	0	0	0	0	0	0
ADDHYD	4	0	5	6	7	0.000	0.000	0.000	1	1	0	1	0	0
REACH	5	0	7	0	5	3500.000	0.000	0.000	1	1	0	1	0	0
RUNOFF	5	0	0	0	6	0.400	78.000	0.700	1	1	0	1	0	0
ADDHYD	8	0	5	6	7	0.000	0.000	0.000	1	1	0	1	0	0

ENDATA

END OF LISTING

EXECUTIVE CONTROL CARD OPERATION INCREM; MAIN TIME INCREMENT= 0.25
 EXECUTIVE CONTROL CARD OPERATION COMPUT; FROM XSECTN/STRUCT 0/ 1 TO XSECTN/STRUCT 8/ 0
 STARTING TIME= 0.00 RAIN DEPTH= 8.50 RAIN DURATION= 1.00 RAIN TABLE NO.= 1 SOIL CONDITION= 2
 ALTERNATE NO.= 1 STORM NO.= 99

SUBROUTINE RUNOFF STRUCTURE 1
 AREA= 2.30 INPUT RUNOFF CURVE= 64.0 TIME OF CONCENTRATION= 3.50
 COMPUTED CURVE NO.= 64.0

PEAK TIMES 14.14 PEAK DISCHARGES 1172.250 PEAK ELEVATIONS (RUNOFF)

TIME	DISCHG	DISCHG	DISCHG	DISCHG	DISCHG	DISCHG	DISCHG	DISCHG	DISCHG	DISCHG	DISCHG
8.25	0.00	0.03	0.10	0.18	0.67	1.17	2.35	4.00	6.12	10.14	
8.75	14.17	22.02	30.83	60.96	123.03	185.15	320.71	456.27	617.16	794.93	
13.25	956.28	1052.00	1147.72	1168.61	1170.80	1148.55	1089.66	1030.77	939.63	848.50	
15.75	771.11	702.89	638.35	508.49	538.63	497.29	458.08	422.81	393.44	364.07	
18.25	341.48	318.88	299.59	282.52	266.19	252.85	239.51	228.37	217.78	208.06	
20.75	199.64	192.21	184.50	177.79	171.82	166.35	161.03	156.33	151.62	147.22	
23.25	142.88	128.98	135.73	132.48	128.58	124.68	119.34	113.05	106.19	97.07	
25.75	87.96	78.43	68.79	59.66	51.29	42.91	36.66	30.42	25.56	21.64	
28.25	17.98	15.33	12.80	10.89	9.13	7.62	6.46	5.31	4.53	3.76	
30.75	3.15	2.65	2.18	1.84	1.51	1.26	1.03	0.84	0.69	0.54	
33.25	0.44	0.34	0.27	0.20	0.14	0.10	0.05	0.03	0.01	0.00	

TOTAL WATER, IN INCHES ON DRAINAGE AREA= .1736 CFS-HRS= 6195.50 ACRE-FT= 511.99

SUBROUTINE RESVOR STRUCTURE 1
 SURFACE ELEVATION= 374.70

PEAK TIMES 15.75 PEAK DISCHARGES 944.343 PEAK ELEVATIONS 377.29

TIME	DISCHG	DISCHG	DISCHG	DISCHG	DISCHG	DISCHG	DISCHG	DISCHG	DISCHG	DISCHG	DISCHG
8.25	0.00	0.00	0.00	0.01	0.05	0.12	0.25	0.48	0.85	1.44	
8.25	ELEV	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	
10.75	DISCHG	2.30	3.57	5.40	8.66	15.36	26.51	44.71	72.34	130.42	209.06
10.75	ELEV	374.71	374.72	374.73	374.75	374.79	374.86	374.97	375.15	375.37	375.64
13.25	DISCHG	317.62	435.12	557.47	670.33	768.86	845.97	900.41	933.53	944.24	933.84
13.25	ELEV	375.94	376.24	376.52	376.76	376.96	377.11	377.22	377.27	377.29	377.28
15.75	DISCHG	908.12	873.45	833.43	790.02	745.34	700.48	656.52	615.37	577.23	540.70
15.75	ELEV	377.23	377.16	377.09	377.00	376.91	376.82	376.74	376.65	376.56	376.48
18.25	DISCHG	506.11	473.73	443.45	415.41	391.44	369.22	348.50	329.20	311.33	294.76
18.25	ELEV	376.40	376.33	376.26	376.20	376.14	376.08	376.02	375.97	375.92	375.88
20.75	DISCHG	279.44	265.29	252.25	240.27	229.25	220.22	212.50	205.15	198.15	191.50
20.75	ELEV	375.84	375.80	375.77	375.74	375.71	375.68	375.65	375.60	375.60	375.58
23.25	DISCHG	185.15	179.11	173.41	168.04	162.91	157.95	153.04	148.01	143.27	137.77

3	23.25	ELEV	375.56	375.54	375.52	375.50	375.48	375.46	375.45	375.43	375.41	375.39
4	25.75	DISCHG	131.05	124.51	117.55	110.27	102.78	95.17	87.61	80.22	75.93	71.72
5	25.75	ELEV	375.37	375.35	375.32	375.30	375.27	375.25	375.22	375.20	375.17	375.14
6	28.25	DISCHG	67.55	63.46	59.50	55.67	52.00	48.49	45.16	42.00	39.02	36.22
7	28.25	ELEV	375.12	375.09	375.07	375.04	375.02	375.00	374.98	374.96	374.94	374.92
8	30.75	DISCHG	33.59	31.12	28.81	26.66	24.65	22.78	21.04	19.43	17.93	16.54
9	30.75	ELEV	374.90	374.89	374.88	374.86	374.85	374.84	374.83	374.82	374.81	374.80
10	33.25	DISCHG	15.25	14.05	12.95	11.93	10.98	10.11	9.30	8.56	7.87	7.24
11	33.25	ELEV	374.79	374.78	374.78	374.77	374.76	374.76	374.75	374.75	374.74	374.74
12	35.75	DISCHG	6.66	6.12	5.63	5.18	4.76	4.38	4.02	3.70	3.40	3.13
13	35.75	ELEV	374.74	374.73	374.73	374.73	374.72	374.72	374.72	374.72	374.72	374.71
14	38.25	DISCHG	2.88	2.65	2.43	2.24	2.06	1.89	1.74	1.60	1.47	1.35
15	38.25	ELEV	374.71	374.71	374.71	374.71	374.71	374.71	374.71	374.71	374.70	374.70
16	40.75	DISCHG	1.24	1.14	1.05	0.96	0.89	0.82	0.75	0.69	0.63	0.58
17	40.75	ELEV	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70
18	43.25	DISCHG	0.53	0.49	0.45	0.41	0.38	0.35	0.32	0.30	0.27	0.25
19	43.25	ELEV	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70
20	45.75	DISCHG	0.23	0.21	0.19	0.18	0.16	0.15	0.14	0.12	0.11	0.10
21	45.75	ELEV	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70
22	48.25	DISCHG	0.10	0.09	0.08	0.07	0.07	0.06	0.06	0.05	0.05	0.04
23	48.25	ELEV	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70
24	50.75	DISCHG	0.04	0.04	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02
25	50.75	ELEV	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70
26	53.25	DISCHG	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00
27	53.25	ELEV	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70
28	55.75	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
29	55.75	ELEV	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 4.1753 CFS-HRS= 6197.69 ACRE-FT= 502.17

SUBROUTINE REACH CROSS SECTION 3
 LENGTH= 4600.00 INPUT COEFFICIENT= 0.0000 INPUT ROUTINGS= 0.00

AVERAGE WATER VELOCITY= 1.323 ROUTING COEFF= 0.4377 NUMBER OF ROUTINGS= 1.00

PEAK TIMES 16.35 PEAK DISCHARGES 898.855 PEAK ELEVATIONS 345.16

30	8.25	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.04	0.07	0.10
31	10.75	DISCHG	0.38	0.67	1.12	1.81	2.82	4.43	7.38	12.57	21.36	35.40

HYDROGRAPH, TZERO= 8.25

DELTA T= 0.25

DRAINAGE AREA= 2.30

3	13.25	DISCHG	61.00	102.00	162.58	241.51	335.33	437.50	542.00	638.88	725.16	798.17
4	15.75	DISCHG	849.18	807.80	597.59	495.96	381.12	256.18	124.00	86.97	747.05	706.38
5	18.25	DISCHG	665.48	625.92	587.78	551.35	516.79	484.23	454.18	426.60	401.27	377.92
6	20.75	DISCHG	356.36	336.42	317.99	300.94	285.18	270.64	257.23	245.13	234.39	224.79
7	23.25	DISCHG	216.10	208.12	200.70	193.75	187.21	181.05	175.23	169.70	164.39	159.20
8	25.75	DISCHG	154.03	148.74	143.28	137.49	131.56	124.87	118.05	110.96	103.70	98.35
9	28.25	DISCHG	89.69	87.78	84.46	78.59	69.05	64.76	60.67	56.78	53.07	49.53
10	30.75	DISCHG	46.17	42.98	39.97	37.13	34.42	31.95	29.60	27.40	25.35	23.44
11	33.25	DISCHG	21.66	20.01	18.47	17.00	15.72	14.69	13.36	12.31	11.32	10.44
12	35.75	DISCHG	9.61	8.84	8.13	7.48	6.88	6.33	5.82	5.35	4.92	4.53
13	38.25	DISCHG	4.15	3.63	3.52	3.24	2.98	2.74	2.52	2.31	2.15	1.96
14	40.75	DISCHG	1.80	1.65	1.52	1.40	1.28	1.18	1.09	1.00	0.92	0.84
15	43.25	DISCHG	0.77	0.71	0.65	0.60	0.55	0.51	0.47	0.43	0.39	0.36
16	45.75	DISCHG	0.33	0.31	0.28	0.26	0.24	0.22	0.20	0.18	0.17	0.15
17	48.25	DISCHG	0.14	0.13	0.12	0.11	0.11	0.09	0.08	0.08	0.07	0.06
18	50.75	DISCHG	0.06	0.05	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.02
19	53.25	DISCHG	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01
20	55.75	DISCHG	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 4.1758 CFS-HRS= 2198.44 ACRE-FT= 512.73

SUBROUTINE RUNOFF CROSS SECTION 3

AREA= 0.50 INPUT RUNOFF CURVE= 65.0 TIME OF CONCENTRATION= 1.70
 COMPUTED CURVE NO. = 65.0

PEAK TIMES 12.94 PEAK DISCHARGES 450.925 PEAK ELEVATIONS (RUNOFF)

31	TIME		HYDROGRAPH, TZERO= 8.25				DELTA T= 0.25			DRAINAGE AREA= 0.50		
32	8.25	DISCHG	0.00	0.02	0.09	0.32	0.80	1.57	2.66	4.09	5.90	8.13
33	10.75	DISCHG	11.12	15.11	20.65	33.56	68.31	139.68	250.48	370.10	437.25	447.74
34	13.25	DISCHG	418.15	359.77	294.61	241.51	201.43	170.07	145.09	125.52	109.60	97.64
35	15.75	DISCHG	87.84	79.88	73.14	67.40	62.53	58.41	54.96	52.17	50.07	48.15
36	18.25	DISCHG	46.22	44.28	42.38	40.63	39.14	38.02	37.11	36.27	35.37	34.43
37	20.75	DISCHG	32.46	32.47	31.51	30.78	30.28	29.90	29.51	29.03	28.45	27.70
38	23.25	DISCHG	26.91	26.26	25.82	25.34	24.41	22.98	19.46	15.60	11.83	8.96
39	25.75	DISCHG	6.00	4.17	2.91	2.05	1.44	1.01	0.70	0.48	0.33	0.22
40	28.25	DISCHG	0.14	0.09	0.05	0.03	0.01	0.00				

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 4.2942 CFS-HRS= 1385.70 ACRE-FT= 114.51

SUBROUTINE ADDHYD CROSS SECTION 3

INPUT HYDROGRAPHS= 5.6 OUTPUT HYDROGRAPH= 7

PEAK TIMES 13.07 16.25 PEAK DISCHARGES 486.959 971.045 PEAK ELEVATIONS 343.23 345.44

41	TIME		HYDROGRAPH, TZERO= 8.25				DELTA T= 0.25			DRAINAGE AREA= 2.80		
42	8.25	DISCHG	0.00	0.02	0.09	0.32	0.80	1.57	2.66	4.13	6.00	8.34
43	10.75	DISCHG	11.50	15.78	21.78	35.47	71.13	144.12	257.86	382.58	458.60	485.19
44	13.25	DISCHG	479.23	461.77	457.20	483.03	536.81	607.57	655.15	707.20	834.99	853.81
45	15.75	DISCHG	937.07	962.69	970.73	963.36	943.65	914.59	878.96	829.11	797.12	754.23
46	18.25	DISCHG	711.71	670.20	630.16	591.98	555.73	522.25	491.30	462.87	436.88	412.88

20.75	DISCHG	289.82	268.90	349.50	331.72	315.47	300.54	286.74	274.17	262.85	252.50
23.25	DISCHG	245.01	237.39	226.53	219.10	211.68	203.64	194.69	185.31	176.22	167.76
25.75	DISCHG	160.04	152.94	146.20	139.55	132.81	125.88	118.75	111.45	104.03	96.57
28.25	DISCHG	89.84	83.87	78.52	73.62	69.06	64.76	60.67	56.78	53.07	49.53
30.75	DISCHG	46.17	42.98	39.97	37.13	34.46	31.95	29.60	27.40	25.35	23.44
33.25	DISCHG	21.56	20.01	18.47	17.04	15.72	14.49	13.36	12.31	11.33	10.44
35.75	DISCHG	9.51	8.84	8.13	7.48	6.88	6.33	5.82	5.35	4.92	4.53
38.25	DISCHG	4.16	3.83	3.52	3.24	2.98	2.74	2.52	2.31	2.13	1.96
40.75	DISCHG	1.80	1.65	1.52	1.40	1.28	1.18	1.09	1.00	0.92	0.84
43.25	DISCHG	0.77	0.71	0.65	0.60	0.55	0.51	0.47	0.43	0.39	0.36
45.75	DISCHG	0.33	0.31	0.28	0.26	0.24	0.22	0.20	0.18	0.17	0.15
48.25	DISCHG	0.14	0.13	0.12	0.11	0.10	0.09	0.08	0.08	0.07	0.06
50.75	DISCHG	0.06	0.05	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.02
53.25	DISCHG	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01
55.75	DISCHG	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 4.1970 CFS-HRS= 7534.15 ACRE-FT= 626.75

SUBROUTINE SAVMOV CROSS SECTION 3
 INPUT HYDROGRAPH= 7 OUTPUT HYDROGRAPH= 5

SUBROUTINE RUNOFF STRUCTURE 2
 AREA= 2.00 INPUT RUNOFF CURVE= 72.0 TIME OF CONCENTRATION= 2.50
 COMPUTED CURVE NO. = 72.0

PEAK TIMES= 13.36 PEAK DISCHARGES= 1669.815 PEAK ELEVATIONS (RUNOFF)

TIME	DISCHG	HYDROGRAPH	TZERO= 6.50	DELTA T= 0.25	DRAINAGE AREA= 2.00
6.50	0.00	0.01	0.11	0.27	0.80
9.00	14.57	19.70	25.24	31.82	39.49
11.50	148.72	262.74	407.95	683.98	972.62
14.00	1461.13	1303.39	1120.40	974.61	843.69
16.50	425.01	384.06	352.51	324.32	300.63
19.00	211.18	200.64	191.31	182.41	174.81
21.50	144.84	141.09	137.86	135.02	132.34
24.00	116.27	112.59	107.93	100.83	91.38
26.50	27.85	21.98	16.97	13.65	10.64
29.00	7.45	1.89	1.46	1.12	0.83
31.50	0.09	0.04	0.01	0.00	0.00

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 5.1317 CFS-HRS= 6623.77 ACRE-FT= 547.38

SUBROUTINE RESVOR STRUCTURE 2
 SURFACE ELEVATION= 341.80
 NULL STRUCTURE...NO ELEVATIONS GIVEN

PEAK TIMES= 13.36 PEAK DISCHARGES= 1669.815 PEAK ELEVATIONS (NULL)

TIME	DISCHG	HYDROGRAPH	TZERO= 6.50	DELTA T= 0.25	DRAINAGE AREA= 2.00
6.50	0.00	0.01	0.11	0.27	0.80
9.00	14.57	19.70	25.24	31.82	39.49
11.50	148.72	262.74	407.95	683.98	972.62
14.00	1461.13	1303.39	1120.40	974.61	843.69
16.50	425.01	384.06	352.51	324.32	300.63
19.00	211.18	200.64	191.31	182.41	174.81
21.50	144.84	141.09	137.86	135.02	132.34
24.00	116.27	112.59	107.93	100.83	91.38
26.50	27.85	21.98	16.97	13.65	10.64
29.00	7.45	1.89	1.46	1.12	0.83
31.50	0.09	0.04	0.01	0.00	0.00

9.00	DISCHG	14.57	19.70	25.24	31.82	39.49	47.97	58.95	71.09	87.69	112.64
11.50	DISCHG	148.72	262.74	407.95	683.98	972.62	1292.75	1511.51	1654.29	1647.20	1599.90
14.00	DISCHG	1461.13	1303.39	1120.40	974.61	843.69	749.05	660.53	587.26	524.39	469.32
16.50	DISCHG	425.01	384.06	352.51	324.32	300.63	280.88	262.69	248.28	234.52	222.40
19.00	DISCHG	211.18	200.64	191.31	182.41	174.81	168.20	162.91	158.01	153.26	148.96
21.50	DISCHG	144.84	141.09	137.86	135.02	132.34	129.67	126.90	124.16	121.44	118.83
24.00	DISCHG	116.27	114.59	107.93	108.83	91.38	80.18	68.12	56.14	45.40	35.84
26.50	DISCHG	27.85	21.98	16.97	13.65	10.64	8.39	6.58	5.09	4.03	3.10
29.00	DISCHG	2.45	1.89	1.46	1.12	0.83	0.64	0.47	0.34	0.24	0.15
31.50	DISCHG	0.09	0.04	0.01	0.00						

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 5.1317 CFS-HRS= 6623.77 ACRE-FT= 547.38

SUBROUTINE SAVMOV STRUCTURE 2
INPUT HYDROGRAPH= 7 OUTPUT HYDROGRAPH= 6

SUBROUTINE ADDHYD CROSS SECTION 4
INPUT HYDROGRAPHS= 5,6 OUTPUT HYDROGRAPH= 7

DUE TO STORAGE OVERFLOW, THE SUM OF HYDROGRAPHS 6 AND 5 WAS TRUNCATED HERE TO 384 VALUES.

PEAK TIMES: 13.33 PEAK DISCHARGES: 2143.097 PEAK ELEVATIONS: (NULL)

6.50	DISCHG	0.00	0.01	0.11	0.27	0.80	1.52	2.95	4.85	7.41	10.90
9.00	DISCHG	14.90	20.50	26.82	34.50	43.63	53.97	67.29	82.60	103.48	134.42
11.50	DISCHG	184.19	333.88	552.07	941.85	1359.30	1751.35	1996.71	2133.52	2108.98	2057.11
14.00	DISCHG	1944.16	1840.21	1727.97	1660.76	1607.90	1584.04	1554.34	1524.29	1487.09	1440.05
16.50	DISCHG	1388.38	1327.72	1267.10	1203.29	1139.78	1078.00	1016.93	959.99	904.72	852.57
19.00	DISCHG	803.16	756.58	713.57	673.71	637.69	604.85	575.27	547.84	522.18	498.49
21.50	DISCHG	476.56	456.56	438.41	421.76	406.51	392.52	379.41	367.17	355.83	345.36
24.00	DISCHG	335.37	324.22	311.58	295.53	276.69	256.41	235.89	216.18	198.35	182.05
26.50	DISCHG	167.40	154.79	142.85	132.41	122.10	112.43	103.16	94.94	87.91	81.62
29.00	DISCHG	76.08	70.96	66.22	61.80	57.61	53.71	50.00	46.51	43.22	40.12
31.50	DISCHG	37.22	34.50	31.96	29.60	27.40	25.35	23.44	21.66	20.01	18.47
34.00	DISCHG	17.04	15.72	14.49	13.36	12.31	11.33	10.44	9.61	8.84	8.13
36.50	DISCHG	7.48	6.88	6.33	5.82	5.35	4.92	4.53	4.16	3.83	3.52
39.00	DISCHG	3.24	2.98	2.74	2.52	2.31	2.13	1.96	1.80	1.65	1.52
41.50	DISCHG	1.40	1.28	1.18	1.09	1.00	0.92	0.84	0.77	0.71	0.65
44.00	DISCHG	0.60	0.55	0.51	0.47	0.43	0.39	0.36	0.33	0.31	0.28
46.50	DISCHG	0.26	0.24	0.22	0.20	0.18	0.17	0.15	0.14	0.13	0.12
49.00	DISCHG	0.11	0.10	0.09	0.08	0.08	0.07	0.06	0.06	0.05	0.05
51.50	DISCHG	0.04	0.04	0.04	0.03	0.03	0.03	0.02	0.02	0.02	0.02
54.00	DISCHG	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00
56.50	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00				

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 4.5863 CFS-HRS= 14207.36 ACRE-FT= 1174.09

SUBROUTINE REACH CROSS SECTION 5
LENGTH= 3500.00 INPUT COEFFICIENT= 0.0000 INPUT ROUTINGS= 0.00

AVERAGE WATER VELOCITY= 2.476 ROUTING COEFF= 0.5929 NUMBER OF ROUTINGS= 0.93

PEAK TIMES 13.84 PEAK DISCHARGES 2073.610 PEAK ELEVATIONS 337.12

TIME	DISCHG	0.00	0.00	0.01	0.07	0.19	0.56	1.15	2.25	3.84	6.02
6.50	DISCHG	0.00	0.00	0.01	0.07	0.19	0.56	1.15	2.25	3.84	6.02
9.00	DISCHG	9.00	12.60	17.43	23.16	30.08	38.35	47.89	59.74	73.69	91.88
11.50	DISCHG	117.86	158.36	265.53	440.49	746.61	1118.27	1504.81	1805.15	2005.65	2068.74
14.00	DISCHG	2061.64	1989.91	1898.50	1794.38	1712.79	1648.75	1609.24	1575.72	1544.32	1509.38
16.50	DISCHG	1467.05	1419.02	1363.27	1304.55	1242.72	1179.87	1117.67	1056.16	997.44	940.83
19.00	DISCHG	886.94	835.79	787.42	742.33	700.43	662.12	627.15	595.47	566.39	539.40
21.50	DISCHG	514.42	491.30	470.09	450.75	433.05	416.84	402.00	388.20	375.36	363.44
24.00	DISCHG	352.40	342.00	331.15	319.20	306.74	287.62	268.56	248.61	228.81	210.21
26.50	DISCHG	193.01	177.37	163.59	150.93	139.62	128.92	118.85	109.27	100.52	92.82
29.00	DISCHG	85.99	79.94	74.46	69.42	64.77	60.40	56.31	52.46	48.83	45.40
31.50	DISCHG	42.18	39.15	36.31	33.66	31.18	28.87	26.72	24.72	22.85	21.12
34.00	DISCHG	19.50	18.00	16.61	15.32	14.12	13.01	11.99	11.04	10.16	9.35
36.50	DISCHG	8.61	7.92	7.28	6.70	6.16	5.67	5.21	4.79	4.41	4.05
39.00	DISCHG	3.73	3.43	3.15	2.90	2.66	2.45	2.25	2.07	1.90	1.75
41.50	DISCHG	1.61	1.48	1.36	1.25	1.15	1.06	0.97	0.89	0.82	0.75
44.00	DISCHG	0.69	0.64	0.59	0.54	0.49	0.45	0.42	0.38	0.35	0.32
46.50	DISCHG	0.30	0.27	0.25	0.23	0.21	0.19	0.18	0.16	0.15	0.14
49.00	DISCHG	0.13	0.12	0.11	0.10	0.09	0.08	0.07	0.07	0.06	0.06
51.50	DISCHG	0.05	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.02	0.02
54.00	DISCHG	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01
56.50	DISCHG	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 4.5818 CFS-HRS= 14193.52 ACRE-FT= 1172.95

SUBROUTINE RUNOFF CROSS SECTION 05
 AREA= 0.40 INPUT RUNOFF CURVE= 78.0 TIME OF CONCENTRATION= 0.70
 COMPUTED CURVE NO.= 78.0

PEAK TIMES 12.25 21.69 23.69
 PEAK DISCHARGES 924.310 27.202 23.213
 PEAK ELEVATIONS (RUNOFF) (RUNOFF) (RUNOFF)

TIME	DISCHG	0.00	0.06	0.38	1.06	1.92	2.83	3.74	4.64	5.73	7.19
5.25	DISCHG	0.00	0.06	0.38	1.06	1.92	2.83	3.74	4.64	5.73	7.19
7.75	DISCHG	8.66	9.95	11.43	13.43	15.53	17.65	19.95	22.79	25.83	29.25
10.25	DISCHG	33.61	39.76	47.65	58.35	73.34	99.11	254.11	679.62	923.89	103.16
12.75	DISCHG	444.41	292.35	203.37	153.47	123.48	102.92	89.28	80.55	74.29	69.29
15.25	DISCHG	65.13	60.89	56.99	52.96	49.65	47.06	45.43	44.70	43.88	42.36
17.75	DISCHG	40.65	38.70	36.82	34.77	33.37	32.78	32.53	32.41	31.82	30.41
20.25	DISCHG	29.27	28.74	28.00	26.46	25.79	26.75	27.15	26.13	25.16	24.70
22.75	DISCHG	23.96	22.50	21.87	22.75	23.16	22.12	18.50	10.61	4.56	1.95
25.25	DISCHG	0.82	0.33	0.12	0.03	0.00					

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 5.8499 CFS-HRS= 1510.15 ACRE-FT= 124.79

SUBROUTINE ADHYD CROSS SECTION 8
 INPUT HYDROGRAPHS= 5.6 OUTPUT HYDROGRAPH= 7

PEAK TIMES PEAK DISCHARGES PEAK ELEVATIONS

13.76

2192.200

(NULL)

TIME	DISCHG	0.00	0.00	0.38	1.06	1.92	2.83	3.74	4.65	5.80	7.39
5.25	DISCHG	0.00	0.00	0.38	1.06	1.92	2.83	3.74	4.65	5.80	7.39
7.75	DISCHG	9.23	11.10	13.68	17.27	21.56	26.65	32.55	40.22	49.00	59.34
10.25	DISCHG	71.97	87.65	107.39	132.05	165.22	216.97	274.47	345.15	434.38	549.78
12.75	DISCHG	1562.68	1797.17	2008.53	2159.12	2192.23	2164.54	2079.19	1979.06	1808.48	1782.09
15.25	DISCHG	1713.88	1670.13	1632.72	1593.29	1559.03	1514.11	1464.45	1407.98	1348.44	1285.08
17.75	DISCHG	1220.52	1156.37	1092.98	1032.22	974.21	919.72	868.32	819.84	774.16	730.85
20.25	DISCHG	591.39	655.90	623.48	592.85	565.19	541.17	518.46	496.23	475.91	457.75
22.75	DISCHG	440.81	424.50	410.08	398.12	386.61	374.53	360.51	341.76	323.77	306.70
25.25	DISCHG	288.44	268.90	248.74	228.85	210.87	193.01	177.37	163.59	150.93	139.62
27.75	DISCHG	128.92	118.85	109.37	100.52	92.82	85.99	79.94	74.46	69.42	64.77
30.25	DISCHG	60.40	56.31	52.46	48.83	45.40	42.18	39.15	36.31	33.66	31.18
32.75	DISCHG	28.87	26.72	24.72	22.85	21.12	19.50	18.00	16.61	15.32	14.12
35.25	DISCHG	13.01	11.99	11.04	10.16	9.35	8.61	7.92	7.28	6.70	6.16
37.75	DISCHG	5.67	5.21	4.79	4.41	4.05	3.73	3.43	3.15	2.90	2.66
40.25	DISCHG	2.45	2.29	2.07	1.90	1.75	1.61	1.48	1.36	1.25	1.15
42.75	DISCHG	1.06	0.97	0.89	0.82	0.75	0.69	0.64	0.59	0.54	0.49
45.25	DISCHG	0.45	0.42	0.38	0.35	0.32	0.30	0.27	0.25	0.23	0.21
47.75	DISCHG	0.19	0.18	0.16	0.15	0.14	0.13	0.12	0.11	0.10	0.09
50.25	DISCHG	0.08	0.07	0.07	0.06	0.06	0.05	0.05	0.04	0.04	0.04
52.75	DISCHG	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02	0.01	0.01
55.25	DISCHG	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.00
57.75	DISCHG	0.00	0.00								

TOTAL WATER IN INCHES ON DRAINAGE AREA = 4.6819 CFS-HRS = 15712.12 ACRE-FT = 1298.44

ENDCMP 1

STRUCTURE NO. 2

34	B	341.8000	0.0000	0.0000
35	B	342.8000	20.0000	0.0000
36	B	343.8000	35.0000	0.2300
37	B	344.8000	70.0000	0.6900
38	B	345.8000	135.0000	1.7380
39	B	346.8000	230.0000	2.3000
40	B	347.8000	340.0000	4.1300
41	B	348.8000	450.0000	6.5600
42	B	349.8000	610.0001	10.5600
43	B	350.8000	740.0001	15.8400
44	B	351.8000	840.0001	24.3300
45	B	352.8000	930.0001	34.6600
46	B	353.8000	1010.0001	47.7500
47	B	354.8000	1070.0002	61.5200
48	B	355.8000	1140.0002	81.2700
49	B	356.8000	1550.0002	103.3100
50	B	357.8000	2750.0004	129.7100
51	B	358.8000	3950.0004	160.9300

EXECUTIVE CONTROL CARD

OPERATION LIST

MACGREGOR DOWNS

G TABLE VELOCITY INCREMENT = 0.200

	0.0000	0.0800	0.1800	0.2800	0.3200
8	0.3700	0.4100	0.4500	0.4900	0.5200
8	0.5400	0.5700	0.5900	0.6100	0.6300
8	0.6500	0.6600	0.6700	0.5900	0.7000
8	0.7100	0.7200	0.7300	0.7400	0.7500
8	0.7600	0.7700	0.7700	0.7800	0.7900
8	0.7900	0.8000	0.8100	0.8100	0.8200
8	0.8200	0.8300	0.8300	0.8400	0.8400
8	0.8400	0.8500	0.8500	0.8600	0.8600
8	0.8600	0.8600	0.8700	0.8700	0.8700
8	0.8800	0.8800	0.8800	0.8900	0.8900
8	0.8900	0.8900	0.8900	0.8900	0.9000
8	0.9000	0.9000	0.9000	0.9000	0.9100
8	0.9100	0.9100	0.9100	0.9100	0.9100
8	0.9200	0.9200	0.9200	0.9200	0.9200
8	0.9200	0.9200	0.9200	0.9300	0.9300

9 ENDTBL

CROSS SECTION NO. 4 DRAINAGE AREA = 1.00

	ELEVATION	DISCHARGE	END AREA
8	338.2000	0.0000	0.0000
8	343.7300	530.0001	363.0400
8	345.5600	1000.0001	621.6600
8	346.7800	1280.0002	1329.0500
8	350.1500	2300.0004	3158.1001

9 ENDTBL

CROSS SECTION NO. 5 DRAINAGE AREA = 1.00

	ELEVATION	DISCHARGE	END AREA
8	328.6000	0.0000	0.0000
8	335.2100	950.0001	317.0700
8	336.2200	1650.0002	651.9600
8	337.1800	2100.0004	1019.6400
8	344.4300	4100.0009	4955.5605

9 ENDTBL

STRUCTURE NO. 1

	ELEVATION	DISCHARGE	STORAGE
8	374.7000	0.0000	0.0000
8	375.2000	80.0000	19.7399
8	375.7000	225.0000	40.1699
8	376.2000	413.0000	61.2899
8	376.7000	636.0001	84.0199
8	377.2000	889.0001	107.8999
8	377.7000	1169.0002	132.9199
8	378.2000	1473.0002	159.5499

2	B	378.7000	1800.0002	187.3259
3	B	379.2000	2148.0004	216.0199
4	B	379.7000	2516.0004	246.0999
5	B	380.2000	3200.0004	277.0899
6	9	ENDTBL		

STRUCTURE NO. 2

		ELEVATION	DISCHARGE	STORAGE
10	B	341.8000	0.0000	0.0000
11	B	342.8000	20.0000	0.0000
12	B	343.8000	35.0000	0.2299
13	B	344.8000	70.0000	0.6899
14	B	345.8000	135.0000	1.3799
15	B	346.8000	230.0000	2.2999
16	B	347.8000	340.0000	4.1299
17	B	348.8000	450.0000	6.6599
18	B	349.8000	610.0001	10.5599
19	B	350.8000	740.0001	15.8399
20	B	351.8000	840.0001	22.3299
21	B	352.8000	930.0001	30.6599
22	B	353.8000	1010.0001	40.7500
23	B	354.8000	1070.0002	51.5199
24	B	355.8000	1140.0002	61.2599
25	B	356.8000	1250.0004	73.3099
26	B	357.8000	1270.0004	81.7099
27	B	358.8000	3950.0004	160.9299
28	9	ENDTBL		

DIMENSIONLESS HYDROGRAPH - PEAK FACTOR = 483.43

31	B	0.0000	0.0300	0.1000	0.1900	0.3100	
32	B	0.4700	0.6600	0.8200	0.9300	0.9900	
33	B	1.0000	0.9900	0.9300	0.8600	0.7800	
34	B	0.6800	0.5600	0.4600	0.3900	0.3300	
35	B	0.2800	0.2410	0.2070	0.1740	0.1470	
36	B	0.1260	0.1070	0.0910	0.0770	0.0660	
37	B	0.0550	0.0470	0.0400	0.0340	0.0290	
38	B	0.0250	0.0210	0.0180	0.0150	0.0130	
39	B	0.0110	0.0090	0.0080	0.0070	0.0060	
40	B	0.0050	0.0040	0.0030	0.0020	0.0010	
41	B	0.0000	0.0000	0.0000	0.0000	0.0000	
42	9	ENDTBL					

RAINFALL TABLE NO. 1 TIME INCREMENT = 0.50

43	B	0.0000	0.0050	0.0110	0.0160	0.0220	0.0280	0.0350	0.0410	0.0480	0.0560	
44	B	0.0630	0.0710	0.0800	0.0890	0.0980	0.1090	0.1200	0.1330	0.1470	0.1630	
45	B	0.1810	0.2040	0.2350	0.2630	0.3660	0.7350	0.7720	0.7990	0.8200	0.8380	
46	B	0.8540	0.8690	0.8800	0.8910	0.9020	0.9120	0.9210	0.9290	0.9370	0.9450	
47	B	0.9520	0.9590	0.9650	0.9720	0.9780	0.9840	0.9890	0.9950	1.0000	1.0000	
48	9	ENDTBL										

EXECUTIVE CONTROL CARD OPERATION INCREM. MAIN TIME INCREMENT= 0.25
 EXECUTIVE CONTROL CARD OPERATION COMPUT. FROM XSECTN/STRUCT 07 1 TO XSECTN/STRUCT 87 0
 STARTING TIME= 0.00 RAIN DEPTH= 8.50 RAIN DURATION= 1.00 RAIN TABLE NO.= 1 SOIL CONDITION= 2
 ALTERNATE NO.= 1 STORM NO.= 99

SUBROUTINE RUNOFF STRUCTURE 1
 AREA= 2.30 INPUT RUNOFF CURVE= 64.0 TIME OF CONCENTRATION= 3.50
 COMPUTED CURVE NO. = 64.0

PEAK TIMES 14.14 PEAK DISCHARGES 1172.250 PEAK ELEVATIONS (RUNOFF)

HYDROGRAPH, TZERO= 8.25 DELTA T= 0.25 DRAINAGE AREA= 2.30

TIME	DISCHG	DISCHG	DISCHG	DISCHG	DISCHG	DISCHG	DISCHG	DISCHG	DISCHG	DISCHG	DISCHG	DISCHG
8.25	0.00	0.03	0.10	0.18	0.67	1.17	2.35	4.00	6.12	10.14		
10.75	14.17	22.02	30.83	60.96	123.05	185.15	320.71	456.27	617.16	794.93		
13.25	956.28	1052.00	1147.72	1168.61	1170.80	1148.55	1089.66	1030.77	939.83	848.50		
15.75	771.11	702.89	638.35	588.49	538.63	497.29	458.08	422.81	393.44	368.07		
18.25	341.48	318.88	299.59	282.52	266.19	252.85	239.51	228.57	217.78	208.00		
20.75	199.64	191.21	184.50	177.79	171.82	166.35	161.03	156.33	151.62	147.22		
23.25	142.88	134.98	135.73	132.48	128.58	124.68	119.34	113.05	106.79	97.07		
25.75	87.96	78.43	68.79	59.66	51.29	42.91	36.66	30.42	25.56	21.64		
28.25	17.98	15.39	12.80	10.89	9.13	7.62	6.46	5.31	4.53	3.78		
30.75	3.15	2.65	2.18	1.84	1.51	1.26	1.03	0.84	0.69	0.54		
32.25	0.44	0.34	0.27	0.20	0.14	0.10	0.05	0.03	0.01	0.00		

TOTAL WATER, IN INCHES DRAINAGE AREA= 4.1738 CFS-HRS= 6195.50 ACRE-FT= 511.99

SUBROUTINE RESVOR STRUCTURE
 SURFACE ELEVATION= 374.70

PEAK TIMES 10.75 PEAK DISCHARGES 944.343 PEAK ELEVATIONS 377.29

HYDROGRAPH, TZERO= 8.25 DELTA T= 0.25 DRAINAGE AREA= 2.30

TIME	DISCHG	DISCHG	DISCHG	DISCHG	DISCHG	DISCHG	DISCHG	DISCHG	DISCHG	DISCHG	DISCHG	DISCHG
8.25	0.00	0.00	0.00	0.01	0.05	0.12	0.25	0.48	0.85	1.44		
8.25	ELEV	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70		
10.75	DISCHG	2.30	3.57	5.40	8.66	15.36	26.51	44.71	72.34	130.42	209.06	
10.75	ELEV	374.71	374.72	374.73	374.75	374.79	374.86	374.97	375.15	375.37	375.64	
13.25	DISCHG	317.62	435.12	557.47	670.33	768.86	845.97	900.41	933.53	944.24	953.84	
13.25	ELEV	375.94	376.24	376.52	376.76	376.96	377.11	377.22	377.27	377.29	377.26	
15.75	DISCHG	908.13	873.45	833.43	790.02	745.34	700.48	656.52	615.37	577.23	540.70	
15.75	ELEV	377.23	377.16	377.09	377.00	376.91	376.82	376.74	376.65	376.56	376.48	
18.25	DISCHG	506.11	473.73	443.46	415.41	391.44	369.22	348.50	329.20	311.33	294.76	
18.25	ELEV	376.40	376.33	376.26	376.20	376.14	376.08	376.02	375.97	375.92	375.88	
20.75	DISCHG	279.44	265.29	252.25	240.27	229.25	220.22	212.50	205.15	198.16	191.50	
20.75	ELEV	375.84	375.80	375.77	375.74	375.71	375.68	375.65	375.63	375.60	375.58	
23.25	DISCHG	185.15	179.11	173.41	168.04	162.51	157.95	153.34	148.01	142.76	137.14	

23.25	ELEV	375.56	375.54	375.52	375.50	375.48	375.46	375.45	375.43	375.41	375.39
25.75	DISCHG	131.05	124.51	117.55	110.27	102.78	95.17	87.61	80.22	75.93	71.72
25.75	ELEV	375.37	375.35	375.32	375.30	375.27	375.25	375.22	375.20	375.17	375.14
28.25	DISCHG	67.55	63.46	59.50	55.67	52.00	48.49	45.16	42.00	39.62	36.22
28.25	ELEV	375.12	375.09	375.07	375.04	375.02	375.00	374.96	374.96	374.94	374.92
30.75	DISCHG	33.59	31.12	28.81	26.66	24.65	22.78	21.04	19.43	17.93	16.54
30.75	ELEV	374.90	374.89	374.88	374.86	374.85	374.84	374.83	374.82	374.81	374.80
33.25	DISCHG	15.25	14.05	12.95	11.93	10.98	10.11	9.30	8.54	7.87	7.29
33.25	ELEV	374.79	374.78	374.78	374.77	374.76	374.76	374.75	374.75	374.74	374.74
35.75	DISCHG	6.66	6.17	5.63	5.18	4.76	4.38	4.02	3.70	3.40	3.13
35.75	ELEV	374.74	374.73	374.73	374.73	374.72	374.72	374.72	374.72	374.72	374.71
38.25	DISCHG	2.88	2.65	2.43	2.24	2.06	1.89	1.74	1.60	1.47	1.35
38.25	ELEV	374.71	374.71	374.71	374.71	374.71	374.71	374.71	374.71	374.70	374.70
40.75	DISCHG	1.24	1.14	1.05	0.96	0.89	0.82	0.75	0.69	0.63	0.58
40.75	ELEV	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70
43.25	DISCHG	0.52	0.49	0.45	0.41	0.38	0.35	0.32	0.30	0.27	0.25
43.25	ELEV	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70
45.75	DISCHG	0.23	0.21	0.19	0.18	0.16	0.15	0.14	0.12	0.11	0.10
45.75	ELEV	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70
48.25	DISCHG	0.10	0.09	0.08	0.07	0.07	0.06	0.06	0.05	0.05	0.04
48.25	ELEV	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70
50.75	DISCHG	0.04	0.04	0.03	0.03	0.03	0.02	0.02	0.02	0.02	0.02
50.75	ELEV	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70
53.25	DISCHG	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	0.00
53.25	ELEV	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70
55.75	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
55.75	ELEV	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70	374.70
TOTAL WATER, IN INCHES ON DRAINAGE AREA=		4.1753	CFS-HRS=		6197.69	ACRE-FT=		512.17			
SUBROUTINE REACH		CROSS SECTION	3								
LENGTH=		4600.00	INPUT COEFFICIENT=		0.5000	INPUT ROUTINGS=		0.00			
AVERAGE WATER VELOCITY=		1.323	ROUTING COEFF=		0.4377	NUMBER OF ROUTINGS=		1.00			
PEAK TIMES		16.35	PEAK DISCHARGES		198.555	PEAK ELEVATIONS		345.16			
TIME		HYDROGRAPH, TZERO=		8.25	DELTA T=		0.25	DRAINAGE AREA=		2.30	
8.25	DISCHG	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.04	0.09	0.20
10.75	DISCHG	0.38	0.67	1.12	1.81	2.82	4.43	7.38	12.57	21.36	35.44

13.25	DISCHG	61.08	102.00	162.58	241.51	335.33	437.50	541.05	638.88	725.15	796.17
15.75	DISCHG	849.18	882.80	897.59	895.96	881.12	856.18	824.00	780.97	747.05	708.05
18.25	DISCHG	665.48	625.92	587.78	551.35	516.79	484.23	454.18	426.60	401.27	377.92
20.75	DISCHG	356.36	336.42	317.99	300.94	285.18	270.64	257.23	244.13	234.39	224.79
23.25	DISCHG	216.10	208.12	200.70	193.75	187.21	181.05	175.23	169.70	164.39	159.20
25.75	DISCHG	154.03	148.77	143.28	137.49	131.36	124.87	118.05	110.96	103.70	96.35
28.25	DISCHG	89.69	83.78	76.46	73.59	69.05	64.76	60.67	57.78	53.07	49.53
30.75	DISCHG	46.17	42.98	39.97	37.13	34.46	31.95	29.60	27.40	25.35	23.44
33.25	DISCHG	21.66	20.01	18.47	17.04	15.72	14.49	13.36	12.31	11.33	10.44
35.75	DISCHG	9.61	8.84	8.13	7.48	6.88	6.33	5.82	5.35	4.92	4.53
38.25	DISCHG	4.16	3.83	3.52	3.24	2.99	2.74	2.52	2.31	2.13	1.98
40.75	DISCHG	1.80	1.65	1.52	1.40	1.28	1.18	1.09	1.00	0.92	0.84
43.25	DISCHG	0.77	0.71	0.65	0.60	0.55	0.51	0.47	0.43	0.39	0.36
45.75	DISCHG	0.33	0.31	0.28	0.26	0.24	0.22	0.20	0.18	0.17	0.15
48.25	DISCHG	0.14	0.13	0.12	0.11	0.10	0.09	0.08	0.08	0.07	0.06
50.75	DISCHG	0.06	0.05	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.02
53.25	DISCHG	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01
55.75	DISCHG	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 4.1758 CFS-HRS= 6198.44 ACRE-FT= 24512.23

SUBROUTINE RUNOFF CROSS SECTION 3

AREA= 0.50 INPUT RUNOFF CURVE= 65.0 TIME OF CONCENTRATION= 1.70
 COMPUTED CURVE NO. = 65.0

PEAK TIMES 12.94 PEAK DISCHARGES 450.925 PEAK ELEVATIONS (RUNOFF)

TIME	DISCHG	HYDROGRAPH, TZERO= 3.25	DELTA T= 0.25	DRAINAGE AREA= 0.50
8.25	DISCHG	0.00 0.02 0.09 0.32 0.80	1.57 2.66 4.09 5.90 8.13	
10.75	DISCHG	11.12 15.11 20.65 33.66 68.31	139.68 250.48 370.10 437.23 449.74	
13.25	DISCHG	418.15 359.77 294.61 241.51 201.48	170.07 145.09 125.32 109.80 97.26	
15.75	DISCHG	87.84 79.88 73.14 67.40 62.53	58.41 54.96 52.17 50.07 48.15	
18.25	DISCHG	46.22 44.28 42.38 40.63 39.14	38.02 37.11 36.27 35.37 34.43	
20.75	DISCHG	33.46 32.47 31.51 30.78 30.28	29.90 29.51 29.03 28.45 27.70	
23.25	DISCHG	26.91 26.26 25.82 25.34 24.41	22.58 19.48 15.60 11.83 8.56	
25.75	DISCHG	6.00 4.17 2.91 2.05 1.44	1.01 0.70 0.48 0.33 0.22	
28.25	DISCHG	0.14 0.09 0.05 0.03 0.01	0.00	

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 4.2942 CFS-HRS= 1385.70 ACRE-FT= 114.51

SUBROUTINE ADDHYD CROSS SECTION 3

INPUT HYDROGRAPHS= 5,6 OUTPUT HYDROGRAPH= 7

PEAK TIMES 13.07 16.25 PEAK DISCHARGES 486.950 971.045 PEAK ELEVATIONS 343.28 345.44

TIME	DISCHG	HYDROGRAPH, TZERO= 3.25	DELTA T= 0.25	DRAINAGE AREA= 2.80
9.25	DISCHG	0.00 0.02 0.09 0.32 0.80	1.57 2.68 4.13 5.00 8.34	
10.75	DISCHG	11.50 15.78 21.78 35.47 71.13	144.12 257.80 382.68 428.60 465.19	
13.25	DISCHG	479.23 461.77 457.20 463.03 536.81	607.57 686.15 764.20 834.99 893.81	
15.75	DISCHG	937.02 962.69 970.73 963.36 943.65	914.59 878.96 839.14 797.12 754.23	
18.25	DISCHG	711.71 670.20 630.16 591.98 555.93	522.25 491.30 462.87 436.65 412.35	

20.75	DISCHG	389.82	368.90	349.50	331.72	315.47	300.54	286.74	274.17	262.85	252.50
22.25	DISCHG	243.01	234.39	226.53	219.10	211.63	203.64	194.69	185.31	176.22	167.76
25.75	DISCHG	160.04	152.94	146.20	139.55	132.81	125.88	118.75	111.45	104.03	96.57
28.25	DISCHG	89.84	83.87	78.52	73.62	69.06	64.76	60.67	56.78	53.07	49.53
30.75	DISCHG	46.17	42.98	39.97	37.13	34.46	31.95	29.60	27.40	25.35	23.44
33.25	DISCHG	21.66	20.01	18.47	17.04	15.72	14.49	13.36	12.31	11.33	10.44
35.75	DISCHG	9.61	8.84	8.12	7.48	6.88	6.33	5.82	5.35	4.92	4.53
38.25	DISCHG	4.16	3.83	3.52	3.24	2.98	2.74	2.52	2.31	2.13	1.96
40.75	DISCHG	1.80	1.65	1.52	1.40	1.28	1.18	1.09	1.00	0.92	0.84
43.25	DISCHG	0.77	0.71	0.65	0.60	0.55	0.51	0.47	0.43	0.39	0.36
45.75	DISCHG	0.33	0.31	0.28	0.26	0.24	0.22	0.20	0.18	0.17	0.15
48.25	DISCHG	0.14	0.13	0.12	0.11	0.10	0.09	0.08	0.08	0.07	0.06
50.75	DISCHG	0.06	0.05	0.05	0.04	0.04	0.04	0.03	0.03	0.03	0.02
53.25	DISCHG	0.02	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01
55.75	DISCHG	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 4.1970 CFS-HRS= 7584.15 ACRE-FT= 626.75

SUBROUTINE SAVMOV CROSS SECTION 3
 INPUT HYDROGRAPH= 7.0 OUTPUT HYDROGRAPH= 5

SUBROUTINE RUNOFF STRUCTURE 2
 AREA= 2.00 INPUT RUNOFF CURVE= 72.0 TIME OF CONCENTRATION= 2.50
 COMPUTED CURVE NO.= 72.0

PEAK TIMES 13.36 PEAK DISCHARGES 1669.815 PEAK ELEVATIONS (RUNOFF)

TIME	HYDROGRAPH, TZERO= 6.50	DELTA T= 0.25	DRAINAGE AREA= 2.00							
6.50	DISCHG 0.00	0.01	0.11	0.27	0.80	1.52	2.95	4.85	7.38	10.80
9.00	DISCHG 14.57	19.73	25.24	31.92	39.49	47.97	58.95	71.09	87.69	112.64
11.50	DISCHG 148.72	262.74	407.95	683.98	972.62	1292.75	1911.51	1654.29	1647.20	1599.90
14.00	DISCHG 1461.13	1305.29	1120.40	974.61	843.69	749.05	660.53	587.26	524.39	469.32
16.50	DISCHG 425.01	384.06	352.51	324.32	300.63	280.88	262.69	248.28	234.52	222.40
19.00	DISCHG 211.16	200.64	191.31	182.41	174.81	168.20	162.91	158.01	153.24	148.94
21.50	DISCHG 144.84	141.09	137.86	135.02	132.34	129.67	126.90	124.16	121.44	118.83
24.00	DISCHG 116.27	112.59	107.93	100.83	91.38	80.18	68.18	56.19	45.40	35.84
26.50	DISCHG 27.85	21.98	16.97	13.65	10.64	8.39	6.56	5.09	4.03	3.10
29.00	DISCHG 2.45	1.89	1.46	1.12	0.83	0.64	0.47	0.34	0.24	0.15
31.50	DISCHG 0.39	0.04	0.01	0.00						

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 5.1317 CFS-HRS= 6623.77 ACRE-FT= 547.38

SUBROUTINE RESMR STRUCTURE 2
 SURFACE ELEVATIONS= 341.80

PEAK TIMES PEAK DISCHARGES PEAK ELEVATIONS
 14.43 1185.228 342.91
 27.43 15.005 342.48
 27.95 9.341 342.20
 28.47 6.701 342.15
 28.98 5.088 342.05
 29.49 4.091 342.00

29.99 3.457 341.97
 30.49 3.090 341.95
 30.99 2.855 341.94
 80.50 2.816 341.94

HYDROGRAPH, TZERO= 6.50 DELTA T= 0.25 DRAINAGE AREA= 2.00

TIME	DISCHG	0.00	0.01	0.11	0.27	0.80	1.92	2.55	4.85	7.38	10.80
5.50	ELEV	341.80	341.80	341.80	341.81	341.84	341.87	341.94	342.04	342.16	342.34
9.00	DISCHG	14.57	19.70	22.10	27.27	34.02	42.48	52.15	63.42	78.39	99.87
9.00	ELEV	342.52	342.78	342.94	343.28	343.73	344.01	344.29	344.61	344.92	345.23
11.50	DISCHG	130.26	207.95	311.24	461.75	657.66	799.01	908.40	994.58	1055.34	1098.12
11.50	ELEV	345.72	346.56	347.53	348.87	350.16	351.39	352.56	353.60	354.55	355.40
14.00	DISCHG	1128.66	1170.04	1183.53	1139.93	1123.62	1100.50	1072.55	1034.46	986.85	928.18
14.00	ELEV	355.63	355.87	355.90	355.79	355.56	355.23	354.83	354.20	353.51	352.77
16.50	DISCHG	848.73	755.09	611.35	449.48	364.55	313.80	281.61	261.59	246.12	232.59
16.50	ELEV	351.89	350.95	349.81	348.79	348.02	347.56	347.26	347.08	346.75	346.82
19.00	DISCHG	217.18	205.54	195.67	186.58	178.35	171.28	165.37	160.30	155.50	150.99
19.00	ELEV	346.66	346.54	346.43	346.34	346.25	346.18	346.11	346.06	346.01	345.96
21.50	DISCHG	146.78	142.84	139.37	136.34	133.65	131.04	128.32	125.57	122.84	120.17
21.50	ELEV	345.92	345.88	345.84	345.81	345.77	345.73	345.69	345.65	345.61	345.57
24.00	DISCHG	117.59	114.47	110.32	104.46	96.32	85.92	74.31	63.13	52.25	42.01
24.00	ELEV	345.53	345.48	345.42	345.33	345.20	345.04	344.86	344.60	344.29	344.00
26.50	DISCHG	33.23	26.54	20.85	11.04	13.25	5.78	9.19	2.48	6.65	0.45
26.50	ELEV	343.68	343.23	342.85	342.38	342.46	342.08	342.26	341.92	342.13	341.82
29.00	DISCHG	5.06	-0.71	4.07	-1.48	3.44	-1.97	3.08	-2.26	2.85	-2.45
29.00	ELEV	342.05	341.76	342.00	341.72	341.97	341.70	341.95	341.68	341.94	341.67
31.50	DISCHG	2.70	-2.57	2.62	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61
31.50	ELEV	341.93	341.67	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66
34.00	DISCHG	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61
34.00	ELEV	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66
36.50	DISCHG	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61
36.50	ELEV	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66
39.00	DISCHG	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61
39.00	ELEV	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66
41.50	DISCHG	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61
41.50	ELEV	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66
44.00	DISCHG	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61
44.00	ELEV	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66
46.50	DISCHG	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61
46.50	ELEV	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66

94.00	ELEV	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66
96.50	DISCHG	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61
96.50	ELEV	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66
99.00	DISCHG	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61
99.00	ELEV	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66	341.93	341.66
101.50	DISCHG	2.61	-2.61	2.61	-2.61						
101.50	ELEV	341.93	341.66	341.93	341.66						

TOTAL WATER INCHES ON DRAINAGE AREA = 5.0723 CFS-HRS = 6547.01 ACRE-FT = 592.00

SUBROUTINE SAVMOV STRUCTURE 2
 INPUT HYDROGRAPH = 7 OUTPUT HYDROGRAPH = 6

SUBROUTINE ADDRXY CROSS SECTION
 INPUT HYDROGRAPHS = 5,6 OUTPUT HYDROGRAPH = 7

DUE TO STORAGE OVERFLOW, THE SUM OF HYDROGRAPHS 6 AND 5 WAS TRUNCATED HERE TO 384 VALUES.

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
19.67	1972.306	(NULL)
29.38	69.810	(NULL)
29.90	61.000	(NULL)
30.41	53.298	(NULL)
30.92	46.233	(NULL)
31.43	40.280	(NULL)
31.94	34.924	(NULL)
32.44	30.288	(NULL)
32.95	26.243	(NULL)
33.46	22.728	(NULL)

TIME 6.50 DISCHG 0.00 0.01 0.11 0.27 0.80 1.92 2.95 4.85 7.41 10.90
 HYDROGRAPH, TZERO = 6.50 DELTA T = 0.25 DRAINAGE AREA = 4.80

9.00	DISCHG	14.90	20.50	23.68	29.96	38.16	48.48	60.49	74.98	94.18	121.65
11.50	DISCHG	165.73	279.09	455.36	719.61	1040.34	1357.61	1693.59	1473.81	1517.12	1555.32
14.00	DISCHG	1616.70	1706.85	1791.11	1826.08	1887.83	1935.50	1966.37	1971.49	1949.57	1898.90
16.50	DISCHG	1812.09	1698.75	1525.94	1328.44	1203.70	1110.93	1035.85	973.31	916.33	862.76
19.00	DISCHG	809.16	761.48	717.92	677.88	641.23	607.93	577.73	550.13	524.40	500.49
21.50	DISCHG	478.50	458.31	439.91	423.09	407.83	393.89	380.83	368.58	357.23	346.70
24.00	DISCHG	336.69	326.10	313.96	299.16	281.53	262.15	242.08	223.17	205.20	188.22
26.50	DISCHG	172.78	159.35	146.74	129.79	124.71	109.81	105.77	92.52	90.53	79.01
29.00	DISCHG	78.69	68.34	68.83	59.18	60.23	51.09	52.61	45.90	45.84	37.51
31.50	DISCHG	39.84	31.88	34.58	26.98	30.82	22.74	26.06	19.05	22.62	15.86
34.00	DISCHG	19.66	13.10	17.11	10.74	14.92	8.72	13.05	6.99	11.45	5.52
36.50	DISCHG	10.10	4.27	8.94	3.20	7.97	2.31	7.14	1.55	6.44	0.96
39.00	DISCHG	5.85	0.36	5.35	-0.09	4.93	-0.48	4.57	-0.81	4.27	-1.03
41.50	DISCHG	4.01	-1.32	3.80	-1.52	3.61	-1.69	3.46	-1.83	3.33	-1.95
44.00	DISCHG	3.22	-2.05	3.12	-2.14	3.04	-2.21	2.98	-2.27	2.92	-2.32
46.50	DISCHG	2.87	-2.37	2.83	-2.41	2.80	-2.44	2.77	-2.46	2.74	-2.49
49.00	DISCHG	2.72	-2.51	2.71	-2.52	2.69	-2.54	2.68	-2.55	2.67	-2.56

51.50	DISCHG	2.66	-2.56	2.65	-2.57	2.64	-2.58	2.64	-2.58	2.63	-2.59
54.00	DISCHG	2.63	-2.59	2.63	-2.59	2.62	-2.60	2.62	-2.60	2.62	-2.60
56.50	DISCHG	2.62	-2.60	2.62	-2.60	2.62	-2.61	2.61	-2.61	2.61	-2.61
59.00	DISCHG	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61
61.50	DISCHG	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61
64.00	DISCHG	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61
66.50	DISCHG	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61
69.00	DISCHG	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61
71.50	DISCHG	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61
74.00	DISCHG	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61
76.50	DISCHG	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61
79.00	DISCHG	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61
81.50	DISCHG	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61
84.00	DISCHG	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61
86.50	DISCHG	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61
89.00	DISCHG	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61
91.50	DISCHG	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61
94.00	DISCHG	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61
96.50	DISCHG	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61
99.00	DISCHG	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61	2.61	-2.61
101.50	DISCHG	2.61	-2.61	2.61	-2.61						

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 4.5615 CFS-HRS= 14130.56 ACRE-FT= 1167.74

SUBROUTINE (REACH) CROSS SECTION 5
 LENGTH= 3500.00 INPUT COEFFICIENT= 0.0000 INPUT ROUTINGS= 0.00
 AVERAGE WATER VELOCITY= 2.485 ROUTING COEFF= 0.5938 NUMBER OF ROUTINGS= 0.92

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
16.06	1961.219	336.86
32.67	30.596	328.81
33.14	26.284	328.78
33.65	22.599	328.75
34.16	19.353	328.73
34.68	16.671	328.71
35.19	14.300	328.69
35.69	12.281	328.68
36.20	10.593	328.67
36.71	9.111	328.66

TIME	DISCHG	HYDROGRAPH, TZERO= 6.50					DELTA T= 0.25			DRAINAGE AREA= 4.80		
6.50	DISCHG	0.00	0.00	0.01	0.07	0.19	0.56	1.15	2.25	3.84	6.01	
9.00	DISCHG	9.01	12.61	17.44	21.26	26.58	33.67	42.73	53.60	66.69	83.01	
11.50	DISCHG	106.86	142.90	226.26	366.49	582.63	862.79	1104.45	1281.43	1399.16	1471.37	
14.00	DISCHG	1522.75	1577.19	1656.56	1738.91	1792.27	1850.76	1902.63	1941.64	1959.91	1953.58	
16.50	DISCHG	1920.11	1853.99	1758.97	1616.34	1440.12	1295.41	1182.49	1092.73	1019.64	956.40	
19.00	DISCHG	899.08	844.04	793.51	747.25	704.79	665.89	630.41	598.16	568.76	541.61	
21.50	DISCHG	516.44	493.22	471.85	452.30	434.42	418.14	403.30	389.55	376.71	364.79	
24.00	DISCHG	353.72	343.29	332.77	321.26	307.73	291.69	273.61	254.31	235.25	216.86	
26.50	DISCHG	199.33	183.08	168.55	155.20	139.65	130.51	117.84	110.45	99.36	93.95	
29.00	DISCHG	84.81	81.07	73.28	70.56	63.60	61.53	55.14	53.60	47.66	46.54	
31.50	DISCHG	41.01	40.29	35.15	34.80	30.02	30.02	25.56	25.86	21.69	22.26	
34.00	DISCHG	18.34	19.15	15.45	16.46	12.76	14.16	10.83	12.19	9.01	10.50	
36.50	DISCHG	7.45	9.07	6.13	7.85	5.01	6.82	4.06	5.94	3.25	5.20	

2	39.00	DISCHG	2.57	4.58	2.00	4.05	1.51	3.60	1.10	3.22	0.75	2.90
3	41.50	DISCHG	0.46	2.63	0.21	2.40	0.00	2.21	-0.17	2.09	-0.32	1.91
4	44.00	DISCHG	-0.45	1.79	-0.56	1.69	-0.65	1.61	-0.73	1.54	-0.79	1.48
5	46.50	DISCHG	-0.85	1.43	-0.89	1.38	-0.93	1.35	-0.97	1.32	-0.99	1.29
6	49.00	DISCHG	-1.02	1.27	-1.04	1.25	-1.05	1.23	-1.07	1.22	-1.08	1.21
7	51.50	DISCHG	-1.09	1.20	-1.10	1.19	-1.11	1.19	-1.11	1.18	-1.12	1.17
8	54.00	DISCHG	-1.12	1.17	-1.13	1.17	-1.13	1.16	-1.13	1.16	-1.14	1.16
9	56.50	DISCHG	-1.14	1.15	-1.14	1.16	-1.14	1.16	-1.15	1.15	-1.15	1.15
10	59.00	DISCHG	-1.15	1.15	-1.15	1.15	-1.15	1.15	-1.15	1.15	-1.15	1.15
11	61.50	DISCHG	-1.15	1.15	-1.15	1.15	-1.15	1.15	-1.15	1.15	-1.15	1.15
12	64.00	DISCHG	-1.15	1.15	-1.15	1.15	-1.15	1.15	-1.15	1.15	-1.15	1.15
13	66.50	DISCHG	-1.15	1.15	-1.15	1.15	-1.15	1.15	-1.15	1.15	-1.15	1.15
14	69.00	DISCHG	-1.15	1.15	-1.15	1.15	-1.15	1.15	-1.15	1.15	-1.15	1.15
15	71.50	DISCHG	-1.15	1.15	-1.15	1.15	-1.15	1.15	-1.15	1.15	-1.15	1.15
16	74.00	DISCHG	-1.15	1.15	-1.15	1.15	-1.15	1.15	-1.15	1.15	-1.15	1.15
17	76.50	DISCHG	-1.15	1.15	-1.15	1.15	-1.15	1.15	-1.15	1.15	-1.15	1.15
18	79.00	DISCHG	-1.15	1.15	-1.15	1.15	-1.15	1.15	-1.15	1.15	-1.15	1.15
19	81.50	DISCHG	-1.15	1.15	-1.15	1.15	-1.15	1.15	-1.15	1.15	-1.15	1.15
20	84.00	DISCHG	-1.15	1.15	-1.15	1.15	-1.15	1.15	-1.15	1.15	-1.15	1.15
21	86.50	DISCHG	-1.15	1.15	-1.15	1.15	-1.15	1.15	-1.15	1.15	-1.15	1.15
22	89.00	DISCHG	-1.15	1.15	-1.15	1.15	-1.15	1.15	-1.15	1.15	-1.15	1.15
23	91.50	DISCHG	-1.15	1.15	-1.15	1.15	-1.15	1.15	-1.15	1.15	-1.15	1.15
24	94.00	DISCHG	-1.15	1.15	-1.15	1.15	-1.15	1.15	-1.15	1.15	-1.15	1.15
25	96.50	DISCHG	-1.15	1.15	-1.15	1.15	-1.15	1.15	-1.15	1.15	-1.15	1.15
26	99.00	DISCHG	-1.15	1.15	-1.15	1.15	-1.15	1.15	-1.15	1.15	-1.15	1.15
27	101.50	DISCHG	-1.15	1.15	-1.15	1.15	-1.15	1.15	-1.15	1.15	-1.15	1.15

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 4.5927 CFS-HRS= 14227.19 ACRE-FT= 1175.73

SUBROUTINE RUNOFF CROSS SECTION 5
 AREA= 0.40 INPUT RUNOFF CURVE= 78.0 TIME OF CONCENTRATION= 0.70
 COMPUTED CURVE NO. = 78.0

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.25	924.310	(RUNOFF)
21.69	27.202	(RUNOFF)
23.69	23.213	(RUNOFF)

TIME	DISCHG	HYDROGRAPH, TZERO= 5.25	DELTA T= 0.25	DRAINAGE AREA= 0.40
5.25	0.00	0.06	0.38	1.06
5.75	0.06	0.38	1.06	1.92
6.25	0.38	1.06	1.92	2.83
6.75	1.06	1.92	2.83	3.74
7.25	1.92	2.83	3.74	4.64
7.75	2.83	3.74	4.64	5.73
8.25	3.74	4.64	5.73	7.19
8.75	4.64	5.73	7.19	8.60
9.25	5.73	7.19	8.60	10.06
9.75	7.19	8.60	10.06	11.48
10.25	8.60	10.06	11.48	12.86
10.75	10.06	11.48	12.86	14.20
11.25	11.48	12.86	14.20	15.50
11.75	12.86	14.20	15.50	16.76
12.25	14.20	15.50	16.76	18.00
12.75	15.50	16.76	18.00	19.20
13.25	16.76	18.00	19.20	20.36
13.75	18.00	19.20	20.36	21.50
14.25	19.20	20.36	21.50	22.60
14.75	20.36	21.50	22.60	23.66
15.25	21.50	22.60	23.66	24.68
15.75	22.60	23.66	24.68	25.66
16.25	23.66	24.68	25.66	26.60
16.75	24.68	25.66	26.60	27.50
17.25	25.66	26.60	27.50	28.36
17.75	26.60	27.50	28.36	29.18
18.25	27.50	28.36	29.18	30.00
18.75	28.36	29.18	30.00	30.76
19.25	29.18	30.00	30.76	31.50
19.75	30.00	30.76	31.50	32.20
20.25	30.76	31.50	32.20	32.86
20.75	31.50	32.20	32.86	33.50
21.25	32.20	32.86	33.50	34.10
21.75	32.86	33.50	34.10	34.66
22.25	33.50	34.10	34.66	35.18
22.75	34.10	34.66	35.18	35.66
23.25	34.66	35.18	35.66	36.10
23.75	35.18	35.66	36.10	36.50
24.25	35.66	36.10	36.50	36.86
24.75	36.10	36.50	36.86	37.18
25.25	36.50	37.18	37.50	37.46
25.75	36.86	37.50	38.00	37.70
26.25	37.18	38.00	38.50	37.90
26.75	37.50	38.50	39.00	38.06
27.25	37.76	39.00	39.50	38.18
27.75	38.00	39.50	40.00	38.26
28.25	38.20	40.00	40.50	38.30
28.75	38.36	40.50	41.00	38.30
29.25	38.50	41.00	41.50	38.26
29.75	38.60	41.50	42.00	38.18
30.25	38.66	42.00	42.50	38.06
30.75	38.70	42.50	43.00	37.90
31.25	38.70	43.00	43.50	37.70
31.75	38.66	43.50	44.00	37.46
32.25	38.50	44.00	44.50	37.18
32.75	38.30	44.50	45.00	36.86
33.25	38.06	45.00	45.50	36.50
33.75	37.76	45.50	46.00	36.10
34.25	37.50	46.00	46.50	35.66
34.75	37.20	46.50	47.00	35.18
35.25	36.86	47.00	47.50	34.66
35.75	36.50	47.50	48.00	34.10
36.25	36.10	48.00	48.50	33.50
36.75	35.66	48.50	49.00	32.86
37.25	35.18	49.00	49.50	32.20
37.75	34.66	49.50	50.00	31.50
38.25	34.10	50.00	50.50	30.76
38.75	33.50	50.50	51.00	30.00
39.25	32.86	51.00	51.50	29.20
39.75	32.20	51.50	52.00	28.36
40.25	31.50	52.00	52.50	27.50
40.75	30.76	52.50	53.00	26.60
41.25	30.00	53.00	53.50	25.66
41.75	29.18	53.50	54.00	24.68
42.25	28.36	54.00	54.50	23.66
42.75	27.50	54.50	55.00	22.60
43.25	26.60	55.00	55.50	21.50
43.75	25.66	55.50	56.00	20.36
44.25	24.68	56.00	56.50	19.20
44.75	23.66	56.50	57.00	18.00
45.25	22.60	57.00	57.50	16.76
45.75	21.50	57.50	58.00	15.50
46.25	20.36	58.00	58.50	14.20
46.75	19.20	58.50	59.00	12.86
47.25	18.00	59.00	59.50	11.48
47.75	16.76	59.50	60.00	10.06
48.25	15.50	60.00	60.50	8.60
48.75	14.20	60.50	61.00	7.19
49.25	12.86	61.00	61.50	5.73
49.75	11.48	61.50	62.00	4.20
50.25	10.06	62.00	62.50	2.60
50.75	8.60	62.50	63.00	1.00
51.25	7.19	63.00	63.50	0.00
51.75	5.73	63.50	64.00	0.00
52.25	4.20	64.00	64.50	0.00
52.75	2.60	64.50	65.00	0.00
53.25	1.00	65.00	65.50	0.00
53.75	0.00	65.50	66.00	0.00
54.25	0.00	66.00	66.50	0.00
54.75	0.00	66.50	67.00	0.00
55.25	0.00	67.00	67.50	0.00
55.75	0.00	67.50	68.00	0.00
56.25	0.00	68.00	68.50	0.00
56.75	0.00	68.50	69.00	0.00
57.25	0.00	69.00	69.50	0.00
57.75	0.00	69.50	70.00	0.00
58.25	0.00	70.00	70.50	0.00
58.75	0.00	70.50	71.00	0.00
59.25	0.00	71.00	71.50	0.00
59.75	0.00	71.50	72.00	0.00
60.25	0.00	72.00	72.50	0.00
60.75	0.00	72.50	73.00	0.00
61.25	0.00	73.00	73.50	0.00
61.75	0.00	73.50	74.00	0.00
62.25	0.00	74.00	74.50	0.00
62.75	0.00	74.50	75.00	0.00
63.25	0.00	75.00	75.50	0.00
63.75	0.00	75.50	76.00	0.00
64.25	0.00	76.00	76.50	0.00
64.75	0.00	76.50	77.00	0.00
65.25	0.00	77.00	77.50	0.00
65.75	0.00	77.50	78.00	0.00
66.25	0.00	78.00	78.50	0.00
66.75	0.00	78.50	79.00	0.00
67.25	0.00	79.00	79.50	0.00
67.75	0.00	79.50	80.00	0.00
68.25	0.00	80.00	80.50	0.00
68.75	0.00	80.50	81.00	0.00
69.25	0.00	81.00	81.50	0.00
69.75	0.00	81.50	82.00	0.00
70.25	0.00	82.00	82.50	0.00
70.75	0.00	82.50	83.00	0.00
71.25	0.00	83.00	83.50	0.00
71.75	0.00	83.50	84.00	0.00
72.25	0.00	84.00	84.50	0.00
72.75	0.00	84.50	85.00	0.00
73.25	0.00	85.00	85.50	0.00
73.75	0.00	85.50	86.00	0.00
74.25	0.00	86.00	86.50	0.00
74.75	0.00	86.50	87.00	0.00
75.25	0.00	87.00	87.50	0.00
75.75	0.00	87.50	88.00	0.00
76.25	0.00	88.00	88.50	0.00
76.75	0.00	88.50	89.00	0.00
77.25	0.00	89.00	89.50	0.00
77.75	0.00	89.50	90.00	0.00
78.25	0.00	90.00	90.50	0.00
78.75	0.00	90.50	91.00	0.00
79.25	0.00	91.00	91.50	0.00
79.75	0.00	91.50	92.00	0.00
80.25	0.00	92.00	92.50	0.00
80.75	0.00	92.50	93.00	0.00
81.25	0.00	93.00	93.50	0.00
81.75	0.00	93.50	94.00	0.00
82.25	0.00	94.00	94.50	0.00
82.75	0.00	94.50	95.00	0.00
83.25	0.00	95.00	95.50	0.00
83.75	0.00	95.50	96.00	0.00
84.25	0.00	96.00	96.50	0.00
84.75	0.00	96.50	97.00	0.00
85.25	0.00	97.00	97.50	0.00
85.75	0.00	97.50	98.00	0.00
86.25				

PEAK TIMES	PEAK DISCHARGES	PEAK ELEVATIONS
12.37	1336.623	(NULL)
16.02	2013.614	(NULL)
32.62	30.596	(NULL)
33.14	26.284	(NULL)
33.65	22.599	(NULL)
34.16	19.353	(NULL)
34.68	16.671	(NULL)
35.19	14.300	(NULL)
35.69	12.281	(NULL)
36.20	10.593	(NULL)

TIME	DISCHG	HYDROGRAPH, TZERO= 5.25	DELTA T= 0.25	DRAINAGE AREA= 5.19
5.25	0.00	0.06	1.06	4.65
7.75	9.23	11.10	17.28	40.24
10.25	67.29	82.50	101.25	905.88
12.75	1307.20	1396.81	1484.81	1737.11
15.25	1915.89	1963.52	1998.64	1803.68
17.75	1336.07	1221.19	1129.56	825.92
20.25	695.16	659.16	626.17	477.47
22.75	442.11	425.81	411.42	343.39
25.25	292.92	273.95	254.44	168.55
27.75	130.51	117.84	111.45	70.56
30.25	61.54	55.14	51.60	35.15
32.75	30.02	25.56	25.86	15.45
35.25	14.16	10.83	12.19	7.85
37.75	6.82	4.06	5.94	4.05
40.25	3.60	1.10	3.42	2.40
42.75	2.21	-0.17	2.03	1.69
45.25	1.61	-0.73	1.54	1.38
47.75	1.35	-0.97	1.32	1.25
50.25	1.23	-1.07	1.22	1.19
52.75	1.19	-1.11	1.18	1.17
55.25	1.16	-1.13	1.16	1.16
57.75	1.16	-1.15	1.15	1.15
60.25	1.15	-1.15	1.15	1.15
62.75	1.15	-1.15	1.15	1.15
65.25	1.15	-1.15	1.15	1.15
67.75	1.15	-1.15	1.15	1.15
70.25	1.15	-1.15	1.15	1.15
72.75	1.15	-1.15	1.15	1.15
75.25	1.15	-1.15	1.15	1.15
77.75	1.15	-1.15	1.15	1.15
80.25	1.15	-1.15	1.15	1.15
82.75	1.15	-1.15	1.15	1.15
85.25	1.15	-1.15	1.15	1.15
87.75	1.15	-1.15	1.15	1.15
90.25	1.15	-1.15	1.15	1.15
92.75	1.15	-1.15	1.15	1.15
95.25	1.15	-1.15	1.15	1.15
97.75	1.15	-1.15	1.15	1.15
100.25	1.15	-1.15	1.15	1.15

TOTAL WATER, IN INCHES ON DRAINAGE AREA= 4.6719

CFS-HRS= 15678.76

ACRE-FI= 1295.09

ENDCMP 1