

TR20 XEQ 11-17-88 11:47
REV PC 09/83(.2)

BLACK SQUIRREL CREEK BASIN - DEVELOPED CONDITIONS W/ 9 PONDS
10 YR & 100 YR 24-HR STORMS 3rd SUBMITTAL

JOB 1 PASS 2
PAGE 25

PERATION REACH CROSS SECTION 10

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.92	3730.68	6527.48
7.35	3919.12	6527.64

OPERATION RUNOFF STRUCTURE 12

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.12	161.29	(RUNOFF)
7.95	10.46	(RUNOFF)
9.95	5.40	(RUNOFF)
19.89	2.90	(RUNOFF)
23.86	1.47	(RUNOFF)

RUNOFF VOLUME ABOVE BASEFLOW = 1.62 WATERSHED INCHES, 150.62 CFS-HRS, 12.45 ACRE-FEET; BASEFLOW = .00 CFS

PERATION ADDHYD STRUCTURE 12

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.91	3749.10	(NULL)
7.35	3931.01	(NULL)

RUNOFF VOLUME ABOVE BASEFLOW = 1.95 WATERSHED INCHES, 13760.90 CFS-HRS, 1137.20 ACRE-FEET; BASEFLOW = .00 CFS

EXECUTIVE CONTROL OPERATION ENDCMP COMPUTATIONS COMPLETED FOR PASS 2 RECORD 10

EXECUTIVE CONTROL OPERATION ENDJOB RECORD 10

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION			RUNOFF AMOUNT (IN)	PEAK DISCHARGE				
						BEGIN (HR)	AMOUNT (IN)	DURATION (HR)		ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)	
ALTERNATE 1 STORM 1														
STRUCTURE 1	RUNOFF	1.44	1	2	.10	.0	3.00	24.00	.66	---	6.30	408.96	283.8	
STRUCTURE 51	RESVOR	1.44	1	2	.10	.0	3.00	24.00	.66	7106.81	7.11	98.08	68.1	
SECTION 1	REACH	1.44	1	2	.10	.0	3.00	24.00	.66	7041.78	7.22	98.06	68.1	
STRUCTURE 2	RUNOFF	1.40	1	2	.10	.0	3.00	24.00	.69	---	6.43	339.72	242.5	
STRUCTURE 52	RESVOR	1.40	1	2	.10	.0	3.00	24.00	.68	7126.50	7.35	95.04	67.8	
SECTION 2	REACH	1.40	1	2	.10	.0	3.00	24.00	.68	7175.87	7.59	94.56	67.5	
STRUCTURE 3	ADDHYD	2.84	1	2	.10	.0	3.00	24.00	.67	---	7.43	191.40	67.3	
STRUCTURE 3	RUNOFF	.30	1	2	.10	.0	3.00	24.00	.77	---	6.09	180.62	594.2	
STRUCTURE 3	ADDHYD	3.15	1	2	.10	.0	3.00	24.00	.68	---	7.36	203.16	64.6	
SECTION 3	REACH	3.15	1	2	.10	.0	3.00	24.00	.68	6974.12	7.48	203.10	64.6	
STRUCTURE 5	RUNOFF	.38	1	2	.10	.0	3.00	24.00	.67	---	6.11	178.31	469.2	
STRUCTURE 25	ADDHYD	3.53	1	2	.10	.0	3.00	24.00	.68	---	6.16	329.93	93.6	
STRUCTURE 24	RUNOFF	1.84	1	2	.10	.0	3.00	24.00	.64	---	6.33	473.09	257.3	
STRUCTURE 53	RESVOR	1.84	1	2	.10	.0	3.00	24.00	.63	7206.85	7.33	98.51	53.6	
STRUCTURE 44	RUNOFF	1.16	1	2	.10	.0	3.00	24.00	.64	---	6.26	343.06	296.0	
STRUCTURE 4	ADDHYD	3.00	1	2	.10	.0	3.00	24.00	.63	---	6.29	378.73	126.3	
SECTION 4	REACH	3.00	1	2	.10	.0	3.00	24.00	.63	7003.64	6.49	334.86	111.7	
STRUCTURE 5	RUNOFF	.99	1	2	.10	.0	3.00	24.00	.71	---	6.45	247.14	248.6	
STRUCTURE 5	ADDHYD	3.99	1	2	.10	.0	3.00	24.00	.65	---	6.47	580.40	145.4	
STRUCTURE 5	RUNOFF	.52	1	2	.10	.0	3.00	24.00	.71	---	6.19	208.50	401.7	
STRUCTURE 54	RESVOR	.52	1	2	.10	.0	3.00	24.00	.71	6903.86	6.77	47.85	92.2	
SECTION 4	REACH	.52	1	2	.10	.0	3.00	24.00	.71	7001.14	6.94	47.51	91.5	
STRUCTURE 45	ADDHYD	4.51	1	2	.10	.0	3.00	24.00	.66	---	6.49	613.98	136.1	
STRUCTURE 5	ADDHYD	8.04	1	2	.10	.0	3.00	24.00	.67	---	6.46	765.48	95.2	
SECTION 5	REACH	8.04	1	2	.10	.0	3.00	24.00	.67	6908.22	6.65	741.22	92.2	
STRUCTURE 6	RUNOFF	.55	1	2	.10	.0	3.00	24.00	1.35	---	6.24	399.98	729.9	
STRUCTURE 6	ADDHYD	8.59	1	2	.10	.0	3.00	24.00	.71	---	6.44	983.93	114.6	
STRUCTURE 6	RUNOFF	.43	1	2	.10	.0	3.00	24.00	.78	---	6.16	201.63	472.2	
STRUCTURE 6	ADDHYD	9.01	1	2	.10	.0	3.00	24.00	.71	---	6.37	1081.21	120.0	
SECTION 6	REACH	9.01	1	2	.10	.0	3.00	24.00	.71	6832.63	6.37	1081.21	120.0	
STRUCTURE 7	RUNOFF	.21	1	2	.10	.0	3.00	24.00	1.74	---	6.07	287.59	1363.0	
STRUCTURE 7	ADDHYD	9.22	1	2	.10	.0	3.00	24.00	.74	---	6.29	1206.40	130.8	

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION			RUNOFF AMOUNT (IN)	PEAK DISCHARGE				
						BEGIN (HR)	AMOUNT (IN)	DURATION (HR)		ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)	
ALTERNATE 1 STORM 1														
SECTION 7	REACH	9.22	1	2	.10	.0	3.00	24.00	.74	6720.52	6.58	1091.59	118.4	
STRUCTURE 8	RUNOFF	.10	1	2	.10	.0	3.00	24.00	1.74	---	6.01	150.75	1538.3	
STRUCTURE 55	RESVDR	.10	1	2	.10	.0	3.00	24.00	1.74	6905.81	6.21	68.06	694.5	
STRUCTURE 8	ADDHYD	9.32	1	2	.10	.0	3.00	24.00	.75	---	6.56	1144.30	122.8	
STRUCTURE 8	RUNOFF	.12	1	2	.10	.0	3.00	24.00	1.74	---	6.04	175.40	1474.0	
STRUCTURE 8	ADDHYD	9.44	1	2	.10	.0	3.00	24.00	.76	---	6.55	1167.26	123.7	
SECTION 7	REACH	9.44	1	2	.10	.0	3.00	24.00	.76	6720.56	6.73	1140.21	120.8	
STRUCTURE 9	RUNOFF	.16	1	2	.10	.0	3.00	24.00	1.74	---	6.03	244.81	1492.7	
STRUCTURE 56	RESVDR	.16	1	2	.10	.0	3.00	24.00	1.74	6905.66	6.28	84.91	517.8	
SECTION 12	REACH	.16	1	2	.10	.0	3.00	24.00	1.74	6801.72	6.44	82.66	504.1	
STRUCTURE 9	RUNOFF	.10	1	2	.10	.0	3.00	24.00	1.74	---	6.01	159.61	1520.1	
STRUCTURE 9	ADDHYD	.27	1	2	.10	.0	3.00	24.00	1.74	---	6.06	189.70	705.2	
STRUCTURE 57	RESVDR	.27	1	2	.10	.0	3.00	24.00	1.74	6906.04	6.93	75.75	281.6	
STRUCTURE 9	ADDHYD	9.71	1	2	.10	.0	3.00	24.00	.79	---	6.74	1209.61	124.6	
STRUCTURE 9	RUNOFF	.04	1	2	.10	.0	3.00	24.00	1.74	---	5.99	67.34	1603.3	
STRUCTURE 9	ADDHYD	9.75	1	2	.10	.0	3.00	24.00	.79	---	6.74	1213.91	124.5	
STRUCTURE 9	RUNOFF	.13	1	2	.10	.0	3.00	24.00	1.74	---	6.06	183.85	1436.3	
STRUCTURE 58	RESVDR	.13	1	2	.10	.0	3.00	24.00	1.74	6906.82	6.30	74.11	578.9	
STRUCTURE 9	ADDHYD	9.88	1	2	.10	.0	3.00	24.00	.80	---	6.72	1274.13	129.0	
SECTION 8	REACH	9.88	1	2	.10	.0	3.00	24.00	.80	6615.82	6.72	1274.13	129.0	
STRUCTURE 10	RUNOFF	.16	1	2	.10	.0	3.00	24.00	1.74	---	6.07	215.22	1379.6	
STRUCTURE 10	ADDHYD	10.04	1	2	.10	.0	3.00	24.00	.82	---	6.71	1297.60	129.3	
SECTION 9	REACH	10.04	1	2	.10	.0	3.00	24.00	.82	6565.25	6.86	1282.64	127.8	
STRUCTURE 11	RUNOFF	.27	1	2	.10	.0	3.00	24.00	1.74	---	6.11	339.69	1248.9	
STRUCTURE 11	ADDHYD	10.31	1	2	.10	.0	3.00	24.00	.84	---	6.83	1324.53	128.5	
STRUCTURE 11	RUNOFF	.26	1	2	.10	.0	3.00	24.00	1.74	---	6.08	354.59	1348.2	
STRUCTURE 11	ADDHYD	10.57	1	2	.10	.0	3.00	24.00	.86	---	6.82	1357.55	128.4	
STRUCTURE 11	RUNOFF	.19	1	2	.10	.0	3.00	24.00	1.19	---	6.15	148.59	762.0	
STRUCTURE 59	RESVDR	.19	1	2	.10	.0	3.00	24.00	1.19	6903.71	6.52	54.29	278.4	
STRUCTURE 11	ADDHYD	10.77	1	2	.10	.0	3.00	24.00	.87	---	6.81	1405.50	130.6	
SECTION 10	REACH	10.77	1	2	.10	.0	3.00	24.00	.87	6524.51	7.00	1379.33	128.1	
STRUCTURE 12	RUNOFF	.14	1	2	.10	.0	3.00	24.00	.64	---	6.15	55.38	384.6	
STRUCTURE 12	ADDHYD	10.91	1	2	.10	.0	3.00	24.00	.87	---	7.00	1386.82	127.1	

ALTERNATE 1 STORM 2													
STRUCTURE 1	RUNOFF	1.44	1	2	.10	.0	4.60	24.00	1.66	---	6.26	1204.75	836.0
STRUCTURE 51	RESVDR	1.44	1	2	.10	.0	4.60	24.00	1.66	---	6.26	1204.75	836.0

PRIMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

ACTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION			RUNOFF AMOUNT (IN)	PEAK DISCHARGE				
						BEGIN (HR)	AMOUNT (IN)	DURATION (HR)		ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)	
ALTERNATE 1 STORM 2														
SECTION 1	REACH	1.44	1	2	.10	.0	4.60	24.00	1.65	7047.60	6.62	879.80	610.6	
STRUCTURE 2	RUNOFF	1.40	1	2	.10	.0	4.60	24.00	1.70	---	6.39	985.09	703.1	
STRUCTURE 52	RESVOR	1.40	1	2	.10	.0	4.60	24.00	1.69	7132.47	6.67	739.72	528.0	
SECTION 2	REACH	1.40	1	2	.10	.0	4.60	24.00	1.69	7177.42	6.81	708.05	505.4	
STRUCTURE 3	ADDHYD	2.84	1	2	.10	.0	4.60	24.00	1.67	---	6.72	1430.20	503.2	
STRUCTURE 3	RUNOFF	.30	1	2	.10	.0	4.60	24.00	1.84	---	6.07	458.76	1509.1	
STRUCTURE 3	ADDHYD	3.15	1	2	.10	.0	4.60	24.00	1.69	---	6.72	1476.47	469.3	
SECTION 3	REACH	3.15	1	2	.10	.0	4.60	24.00	1.69	6980.02	6.86	1402.29	445.7	
STRUCTURE 5	RUNOFF	.38	1	2	.10	.0	4.60	24.00	1.68	---	6.09	492.26	1295.4	
STRUCTURE 25	ADDHYD	3.53	1	2	.10	.0	4.60	24.00	1.68	---	6.86	1449.65	411.1	
STRUCTURE 24	RUNOFF	1.84	1	2	.10	.0	4.60	24.00	1.62	---	6.29	1421.39	772.9	
STRUCTURE 53	RESVOR	1.84	1	2	.10	.0	4.60	24.00	1.60	7212.39	6.54	1084.93	590.0	
STRUCTURE 44	RUNOFF	1.16	1	2	.10	.0	4.60	24.00	1.62	---	6.22	1029.34	888.1	
STRUCTURE 4	ADDHYD	3.00	1	2	.10	.0	4.60	24.00	1.61	---	6.50	1640.67	547.3	
SECTION 4	REACH	3.00	1	2	.10	.0	4.60	24.00	1.61	7008.52	6.69	1345.55	448.8	
STRUCTURE 5	RUNOFF	.99	1	2	.10	.0	4.60	24.00	1.74	---	6.41	703.88	708.1	
STRUCTURE 5	ADDHYD	3.99	1	2	.10	.0	4.60	24.00	1.64	---	6.63	1909.34	478.3	
STRUCTURE 5	RUNOFF	.52	1	2	.10	.0	4.60	24.00	1.74	---	6.16	575.37	1108.6	
STRUCTURE 54	RESVOR	.52	1	2	.10	.0	4.60	24.00	1.74	6907.73	6.35	388.59	748.7	
SECTION 4	REACH	.52	1	2	.10	.0	4.60	24.00	1.73	7004.01	6.46	386.66	745.0	
STRUCTURE 45	ADDHYD	4.51	1	2	.10	.0	4.60	24.00	1.65	---	6.58	2202.41	488.2	
STRUCTURE 5	ADDHYD	8.04	1	2	.10	.0	4.60	24.00	1.67	---	6.76	3327.85	414.1	
SECTION 5	REACH	8.04	1	2	.10	.0	4.60	24.00	1.67	6912.15	6.89	3268.58	406.7	
STRUCTURE 6	RUNOFF	.55	1	2	.10	.0	4.60	24.00	2.69	---	6.22	843.76	1539.7	
STRUCTURE 6	ADDHYD	8.59	1	2	.10	.0	4.60	24.00	1.73	---	6.87	3467.32	403.9	
STRUCTURE 6	RUNOFF	.43	1	2	.10	.0	4.60	24.00	1.85	---	6.13	535.93	1255.1	
STRUCTURE 6	ADDHYD	9.01	1	2	.10	.0	4.60	24.00	1.74	---	6.87	3536.11	392.4	
SECTION 6	REACH	9.01	1	2	.10	.0	4.60	24.00	1.74	6834.72	6.87	3536.11	392.4	
STRUCTURE 7	RUNOFF	.21	1	2	.10	.0	4.60	24.00	3.19	---	6.06	531.83	2520.5	
STRUCTURE 7	ADDHYD	9.22	1	2	.10	.0	4.60	24.00	1.77	---	6.86	3577.29	387.9	
SECTION 7	REACH	9.22	1	2	.10	.0	4.60	24.00	1.77	6722.02	7.00	3507.29	380.3	
STRUCTURE 8	RUNOFF	.10	1	2	.10	.0	4.60	24.00	3.20	---	5.99	275.01	2806.2	
STRUCTURE 55	RESVOR	.10	1	2	.10	.0	4.60	24.00	3.19	6910.06	6.22	91.89	937.6	
STRUCTURE 8	ADDHYD	9.32	1	2	.10	.0	4.60	24.00	1.78	---	7.00	3578.04	383.9	
STRUCTURE 8	RUNOFF	.12	1	2	.10	.0	4.60	24.00	3.20	---	6.02	321.44	2701.2	
STRUCTURE 8	ADDHYD	9.44	1	2	.10	.0	4.60	24.00	1.80	---	7.00	3597.40	381.1	

020 XEQ 11-17-88 11:47
REV PC 09/83(.2)

BLACK SQUIRREL CREEK BASIN - DEVELOPED CONDITIONS W/ 9 PONDS
10 YR & 100 YR 24-HR STORMS 3rd SUBMITTAL

JOB 1 SUMMARY
PAGE 29

PRIMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

ACTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION			RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
						BEGIN (HR)	AMOUNT (IN)	DURATION (HR)		ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
ALTERNATE 1 STORM 2													
SECTION 7	REACH	9.44	1	2	.10	.0	4.60	24.00	1.80	6722.05	7.12	3575.59	378.8
STRUCTURE 9	RUNOFF	.16	1	2	.10	.0	4.60	24.00	3.20	---	6.01	448.07	2732.1
STRUCTURE 56	RESVOR	.16	1	2	.10	.0	4.60	24.00	3.19	6910.20	6.24	183.03	1116.0
SECTION 12	REACH	.16	1	2	.10	.0	4.60	24.00	3.19	6802.29	6.37	169.61	1034.2
STRUCTURE 9	RUNOFF	.10	1	2	.10	.0	4.60	24.00	3.20	---	6.00	291.61	2777.3
STRUCTURE 9	ADDHYD	.27	1	2	.10	.0	4.60	24.00	3.19	---	6.04	358.14	1331.4
STRUCTURE 57	RESVOR	.27	1	2	.10	.0	4.60	24.00	3.19	6907.31	6.22	284.81	1058.8
STRUCTURE 9	ADDHYD	9.71	1	2	.10	.0	4.60	24.00	1.84	---	7.12	3696.03	380.7
STRUCTURE 9	RUNOFF	.04	1	2	.10	.0	4.60	24.00	3.20	---	5.98	122.11	2907.4
STRUCTURE 9	ADDHYD	9.75	1	2	.10	.0	4.60	24.00	1.85	---	7.11	3701.98	379.7
STRUCTURE 9	RUNOFF	.13	1	2	.10	.0	4.60	24.00	3.19	---	6.04	332.94	2601.1
STRUCTURE 58	RESVOR	.13	1	2	.10	.0	4.60	24.00	3.18	6911.51	6.29	148.14	1157.3
STRUCTURE 9	ADDHYD	9.88	1	2	.10	.0	4.60	24.00	1.86	---	7.11	3778.76	382.5
SECTION 8	REACH	9.88	1	2	.10	.0	4.60	24.00	1.86	6617.79	7.11	3778.76	382.5
STRUCTURE 10	RUNOFF	.16	1	2	.10	.0	4.60	24.00	3.19	---	6.06	397.37	2547.2
STRUCTURE 10	ADDHYD	10.04	1	2	.10	.0	4.60	24.00	1.88	---	7.11	3803.30	379.0
SECTION 9	REACH	10.04	1	2	.10	.0	4.60	24.00	1.88	6568.47	7.23	3788.09	377.5
STRUCTURE 11	RUNOFF	.27	1	2	.10	.0	4.60	24.00	3.19	---	6.10	635.09	2334.9
STRUCTURE 11	ADDHYD	10.31	1	2	.10	.0	4.60	24.00	1.92	---	7.22	3829.45	371.5
STRUCTURE 11	RUNOFF	.26	1	2	.10	.0	4.60	24.00	3.19	---	6.07	656.65	2496.8
STRUCTURE 11	ADDHYD	10.57	1	2	.10	.0	4.60	24.00	1.95	---	7.22	3866.55	365.8
STRUCTURE 11	RUNOFF	.19	1	2	.10	.0	4.60	24.00	2.46	---	6.13	326.81	1676.0
STRUCTURE 59	RESVOR	.19	1	2	.10	.0	4.60	24.00	2.46	6907.60	6.53	106.03	543.7
STRUCTURE 11	ADDHYD	10.77	1	2	.10	.0	4.60	24.00	1.96	---	7.21	3952.51	367.2
SECTION 10	REACH	10.77	1	2	.10	.0	4.60	24.00	1.96	6527.64	7.35	3919.12	364.1
STRUCTURE 12	RUNOFF	.14	1	2	.10	.0	4.60	24.00	1.62	---	6.12	161.29	1120.1
STRUCTURE 12	ADDHYD	10.91	1	2	.10	.0	4.60	24.00	1.95	---	7.35	3931.01	360.3

SUMMARY TABLE 2 - SELECTED MODIFIED ATT-KIN REACH ROUTINGS IN ORDER OF STANDARD EXECUTIVE CONTROL INSTRUCTIONS
(A STAR(*) AFTER VOLUME ABOVE BASE(IN) INDICATES A HYDROGRAPH TRUNCATED AT A VALUE EXCEEDING BASE + 10% OF PEAK
A QUESTION MARK(?) AFTER COEFF.(C) INDICATES PARAMETERS OUTSIDE ACCEPTABLE LIMITS, SEE PREVIOUS WARNINGS)

HYDROGRAPH INFORMATION										ROUTING PARAMETERS						PEAK	
XSEC	REACH	INFLOW		OUTFLOW		OUTFLOW+		BASE-	VOLUME	MAIN	ITER-	B AND A		PEAK	S/D	ATT-	TRAVEL TIME
ID	LENGTH	PEAK	TIME	PEAK	TIME	PEAK	TIME	FLOW	ABOVE	TIME	ATION	EQUATION		LENGTH	RATIO	PEAK	KIN
	(FT)	(CFS)	(HR)	(CFS)	(HR)	(CFS)	(HR)	(CFS)	(IN)	(HR)	#	COEFF	POWER	FACTOR	O/I	(K)	COEFF
												(X)	(M)	(K*)	(D*)	(SEC)	(C)
ALTERNATE 1 STORM 1																	
1	2200	98	7.1	98	7.2	---	---	0	.66	.10	1	1.95	1.48	.002	1.000	212	.92?
2	3000	95	7.4	95	7.6	---	---	0	.68	.10	1	2.20	1.24	.012	.995	537	.50
3	3400	203	7.4	203	7.5	---	---	0	.68	.10	1	1.99	1.48	.002	1.000	260	.82?
4	8500	379	6.3	335	6.5	---	---	0	.63	.10	1	2.04	1.47	.019	.883	532	.51
4	3000	48	6.8	47	6.9	---	---	0	.71	.10	1	2.14	1.45	.006	.992	370	.66
5	5000	763	6.5	738	6.7	---	---	0	.67	.10	1	.655	1.50	.009	.967	479	.55
6	2400	1079	6.4	1079	6.4	---	---	0	.71	.10	0	2.30	1.51	.001	1.000	87	1.00?
7	3900	1206	6.3	1091	6.6	---	---	0	.74	.10	1	.081	1.65	.016	.904	652	.43
7	2500	1162	6.5	1138	6.7	---	---	0	.76	.10	1	.081	1.65	.007	.980	424	.60
12	3300	85	6.3	82	6.4	---	---	0	1.74	.10	1	2.82	1.35	.024	.968	362	.66
8	3150	1273	6.7	1273	6.7	---	---	0	.80	.10	0	2.24	1.51	.001	1.000	110	1.00?
9	4700	1297	6.7	1280	6.9	---	---	0	.82	.10	1	1.58	1.38	.009	.987	343	.69?
10	4900	1405	6.8	1379	7.0	---	---	0	.87	.10	1	4.86	1.10	.027	.981	537	.50
ALTERNATE 1 STORM 2																	
1	2200	906	6.5	876	6.6	---	---	0	1.65	.10	1	2.95	1.20	.027	.967	245	.85?
2	3000	734	6.7	707	6.8	---	---	0	1.69	.10	1	1.61	1.33	.020	.962	302	.75?
3	3400	1471	6.7	1393	6.9	---	---	0	1.69	.10	1	2.42	1.24	.023	.947	325	.71?
4	8500	1640	6.5	1345	6.7	---	---	0	1.61	.10	2	2.36	1.25	.089	.820	786	.37
4	3000	379	6.4	379	6.5	---	---	0	1.74	.10	1	2.04	1.47	.012	.999	188	.98?
5	5000	3308	6.8	3268	6.9	---	---	0	1.67	.10	1	.920	1.43	.014	.988	328	.71?
6	2400	3525	6.9	3525	6.9	---	---	0	1.74	.10	0	2.73	1.46	.001	1.000	62	1.00?
7	3900	3565	6.9	3507	7.0	---	---	0	1.77	.10	1	.086	1.64	.012	.984	430	.59
7	2500	3597	7.0	3573	7.1	---	---	0	1.80	.10	1	.086	1.64	.005	.993	275	.79?
12	3300	179	6.2	167	6.4	---	---	0	3.19	.10	1	2.84	1.34	.023	.937	301	.75?
8	3150	3778	7.1	3778	7.1	---	---	0	1.86	.10	0	2.63	1.47	.001	1.000	81	1.00?
9	4700	3803	7.1	3784	7.2	---	---	0	1.88	.10	1	1.57	1.38	.008	.995	254	.83?
10	4900	3952	7.2	3910	7.3	---	---	0	1.96	.10	1	1.50	1.32	.014	.989	375	.65

R20 XED 11-17-88 11:47
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BLACK SQUIRREL CREEK BASIN - DEVELOPED CONDITIONS W/ 9 PONDS
10 YR & 100 YR 24-HR STORMS 3rd SUBMITTAL

JOB 1 SUMMARY
PAGE 31

SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS.....	
		1	2
STRUCTURE 59	.19		
ALTERNATE 1		54.29	106.03
STRUCTURE 58	.13		
ALTERNATE 1		74.11	148.14
STRUCTURE 57	.27		
ALTERNATE 1		75.75	284.81
STRUCTURE 56	.16		
ALTERNATE 1		84.91	183.03
STRUCTURE 55	.10		
ALTERNATE 1		68.06	91.89
STRUCTURE 54	.52		
ALTERNATE 1		47.85	388.59
STRUCTURE 53	1.84		
ALTERNATE 1		98.51	1084.93
STRUCTURE 52	1.40		
ALTERNATE 1		95.04	739.72
STRUCTURE 51	1.44		
ALTERNATE 1		98.08	905.81
STRUCTURE 45	4.51		
ALTERNATE 1		613.98	2202.41
STRUCTURE 44	1.16		
ALTERNATE 1		343.06	1029.34
STRUCTURE 25	3.53		
ALTERNATE 1		329.93	1449.65
STRUCTURE 24	1.84		
ALTERNATE 1		473.09	1421.39
STRUCTURE 12	10.91		
ALTERNATE 1		1386.82	3931.01

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BLACK SQUIRREL CREEK BASIN - DEVELOPED CONDITIONS W/ 9 PONDS
10 YR & 100 YR 24-HR STORMS 3rd SUBMITTAL

JOB 1 SUMMARY
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SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS.....	
		1	2
STRUCTURE 11	10.77		
ALTERNATE 1		1405.50	3952.51
STRUCTURE 10	10.04		
ALTERNATE 1		1297.60	3803.30
STRUCTURE 9	9.88		
ALTERNATE 1		1274.13	3778.76
STRUCTURE 8	9.44		
ALTERNATE 1		1167.26	3597.40
STRUCTURE 7	9.22		
ALTERNATE 1		1206.40	3577.29
STRUCTURE 6	9.01		
ALTERNATE 1		1081.21	3536.11
STRUCTURE 5	8.04		
ALTERNATE 1		765.48	3327.85
STRUCTURE 4	3.00		
ALTERNATE 1		378.73	1640.67
STRUCTURE 3	3.15		
ALTERNATE 1		203.16	1476.47
STRUCTURE 2	1.40		
ALTERNATE 1		339.72	985.09
STRUCTURE 1	1.44		
ALTERNATE 1		408.96	1204.75
XSECTION 1	1.44		
ALTERNATE 1		98.06	879.80
XSECTION 2	1.40		
ALTERNATE 1		94.56	708.05
XSECTION 3	3.15		
ALTERNATE 1		203.10	1402.29

20 XED 11-17-88 11:47
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BLACK SQUIRREL CREEK BASIN - DEVELOPED CONDITIONS W/ 9 PONDS
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JOB 1 SUMMARY
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SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

SECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS.....	
		1	2

XSECTION 4	.52		
ALTERNATE 1		47.51	386.66

XSECTION 5	8.04		
ALTERNATE 1		741.22	3268.58

XSECTION 6	9.01		
ALTERNATE 1		1081.21	3536.11

XSECTION 7	9.44		
ALTERNATE 1		1140.21	3575.59

XSECTION 8	9.88		
ALTERNATE 1		1274.13	3778.76

SECTION 9	10.04		
ALTERNATE 1		1282.64	3788.09

SECTION 10	10.77		
ALTERNATE 1		1379.33	3919.12

SECTION 12	.16		
ALTERNATE 1		82.66	169.61

*****80-80 LIST OF INPUT DATA FOR TR-20 HYDROLOGY*****

JOB TR-20 SUMMARY NOPLOTS

TITLE BLACK SQUIRREL CREEK BASIN - PRESENT CONDITIONS

TITLE 10 YEAR AND 100 YEAR, 2-HOUR STORMS AMC-II

5 RAINFL 9 0.0833

8 0.0000 0.020 0.057 0.139 0.289

8 0.539 0.659 0.715 0.758 0.796

8 0.828 0.860 0.892 0.924 0.956

8 0.988 1.013 1.032 1.051 1.070

8 1.089 1.108 1.127 1.144 1.157

9 ENDTBL

5 RAINFL 8 0.0833

8 0.0000 0.010 0.040 0.086 0.166

8 0.306 0.556 0.696 0.776 0.838

8 0.888 0.928 0.968 1.008 1.028

8 1.048 1.060 1.072 1.084 1.096

8 1.108 1.120 1.132 1.144 1.156

9 ENDTBL

2 XSECTN 001 1.0

8 7379.5 0.0 0.0

8 7379.7 25.0 6.4

8 7379.9 50.0 12.7

8 7380.3 100.0 21.7

8 7380.5 150.0 30.3

8 7380.7 200.0 38.3

8 7381.2 400.0 64.3

8 7381.6 600.0 85.1

8 7382.0 800.0 105.0

8 7383.3 1000.0 123.8

8 7384.0 1500.0 168.2

9 ENDTBL

2 XSECTN 002 1.0

8 7239.0 0.0 0.0

8 7240.0 50.0 12.5

8 7240.3 100.0 21.7

8 7240.5 150.0 30.1

8 7240.7 200.0 37.9

8 7241.2 400.0 63.7

8 7241.6 600.0 85.1

8 7242.0 800.0 105.3

8 7242.3 1000.0 124.0

8 7243.0 1500.0 167.5

9 ENDTBL

2 XSECTN 003 1.0

8 7174.6 0.0 0.0

8 7175.6 50.0 12.5

8 7175.9 100.0 21.9

*****B0-80 LIST OF INPUT DATA (CONTINUED)*****

8	7176.1	150.0	30.4
8	7176.3	200.0	38.1
8	7176.8	400.0	63.4
8	7177.2	600.0	85.4
8	7177.6	800.0	104.9
8	7177.9	1000.0	123.1
8	7178.6	1500.0	167.8

9 ENDTBL

2 XSECTN 004 1.0

8	6971.4	0.0	0.0
8	6972.6	50.0	8.9
8	6973.2	100.0	14.2
8	6973.7	150.0	18.5
8	6974.1	200.0	22.7
8	6975.6	400.0	36.3
8	6976.7	600.0	47.9
8	6978.9	800.0	109.6
8	6979.3	1000.0	128.5
8	6980.2	1500.0	177.3
8	6980.9	2000.0	213.4
8	6982.1	3000.0	283.1

9 ENDTBL

2 XSECTN 005 1.0

8	7000.0	0.0	0.0
8	7001.2	50.0	8.8
8	7001.8	100.0	14.2
8	7002.3	150.0	18.6
8	7002.7	200.0	22.6
8	7004.1	400.0	36.2
8	7005.3	600.0	47.9
8	7007.4	800.0	108.5
8	7007.9	1000.0	131.7
8	7008.8	1500.0	176.1
8	7009.5	2000.0	215.4
8	7010.7	3000.0	283.1

9 ENDTBL

2 XSECTN 006 1.0

8	6905.0	0.0	0.0
8	6906.4	50.0	8.3
8	6907.1	100.0	14.8
8	6907.6	150.0	21.4
8	6908.1	200.0	29.0
8	6909.3	400.0	53.0
8	6910.1	600.0	75.0
8	6910.8	800.0	95.9
8	6911.4	1000.0	114.6

*****80-80 LIST OF INPUT DATA (CONTINUED)*****

8	6913.4	2000.0	197.3
8	6914.4	3000.0	262.6
8	6915.9	4000.0	322.6
8	6917.0	5000.0	380.2

9 ENDTBL

2 XSECTN 007

	1.0		
8	6830.0	0.0	0.0
8	6832.7	100.0	12.5
8	6833.9	200.0	21.3
8	6835.7	400.0	38.6
8	6836.9	600.0	54.8
8	6837.9	800.0	69.4
8	6838.9	1000.0	86.8
8	6842.6	2000.0	212.6
8	6844.2	3000.0	307.1
8	6845.3	4000.0	388.4
8	6846.3	5000.0	460.4

9 ENDTBL

2 XSECTN 008

	1.0		
8	6718.8	0.0	0.0
8	6719.4	100.0	33.6
8	6719.5	200.0	58.2
8	6719.9	400.0	116.9
8	6720.0	600.0	131.4
8	6720.1	800.0	157.0
8	6720.2	1000.0	179.2
8	6720.5	1500.0	240.8
8	6720.8	2000.0	291.7
8	6721.2	3000.0	388.4
8	6721.6	4000.0	477.9
8	6722.0	5000.0	560.0

9 ENDTBL

2 XSECTN 009

	1.0		
8	6560.0	0.0	0.0
8	6561.4	100.0	15.1
8	6562.2	200.0	24.2
8	6563.6	400.0	59.8
8	6564.0	600.0	75.7
8	6564.5	800.0	93.9
8	6564.8	1000.0	108.1
8	6565.6	1500.0	144.7
8	6566.4	2000.0	178.0
8	6567.6	3000.0	238.9
8	6568.7	4000.0	294.6
8	6569.7	5000.0	347.7

9 ENDTBL

*****80-80 LIST OF INPUT DATA (CONTINUED)*****

6	RUNOFF	1	01	5	0.325	63.2	0.31	1	1	1	BASIN A
6	REACH	3	001	5	6	4000.		1			PT 1-2
6	RUNOFF	1	02	7	0.680	64.4	0.45	1			BASIN B
6	ADDHYD	4	02	6	7	5		1	1	1	PT 2
6	REACH	3	002	5	6	5200.		1			PT 2-4
6	RUNOFF	1	04	7	0.619	65.0	0.43	1			BASIN D
6	ADDHYD	4	04	6	7	1		1	1	1	PT 4W
6	RUNOFF	1	03	5	0.962	64.7	0.56	1	1	1	BASIN C
6	REACH	3	003	5	6	8600.		1			PT 3-4
6	RUNOFF	1	04	7	0.531	65.1	0.50	1			BASIN E
6	ADDHYD	4	04	6	7	5		1	1	1	PT 4E
6	ADDHYD	4	04	5	1	6		1	1	1	PT 4
6	REACH	3	004	6	7	3300.		1			PT 4-6
6	RUNOFF	1	06	5	0.383	65.6	0.48	1			BASIN G
6	ADDHYD	4	06	7	5	2		1	1	1	PT 6W
6	RUNOFF	1	05	6	3.305	63.8	0.71	1	1	1	BASIN F
6	REACH	3	005	6	7	6700.		1			PT 5-6
6	RUNOFF	1	06	5	1.234	65.5	0.54	1			BASIN H
6	ADDHYD	4	06	7	5	6		1	1	1	PT 6E
6	ADDHYD	4	06	6	2	7		1	1	1	PT 6
6	REACH	3	006	7	5	5100.		1			PT 6-7
6	RUNOFF	1	07	6	0.939	68.0	0.46	1			BASIN I
6	ADDHYD	4	07	5	6	7		1	1	1	PT 7
6	REACH	3	007	7	5	8600.		1			PT 7-8
6	RUNOFF	1	08	6	0.866	69.0	0.42	1			BASIN J
6	ADDHYD	4	08	5	6	7		1	1	1	PT 8
6	REACH	3	008	7	5	7900.		1			PT 8-9
6	RUNOFF	1	09	6	0.925	68.1	0.48	1			BASIN K
6	ADDHYD	4	09	5	6	7		1	1	1	PT 9
6	REACH	3	009	7	5	5000.		1			PT 9-10
6	RUNOFF	1	10	6	0.144	68.3	0.38	1			BASIN L
6	ADDHYD	4	10	5	6	7		1	1	1	PT 10
ENDATA											
7	INCREM	6			0.05						
7	COMPUT	7	01	10		1.7	1.0	9	2	01	01 10 YEAR
ENDCMP 1											
7	COMPUT	7	01	10		2.5	1.0	8	2	01	02 100 YEAR
ENDCMP 1											
ENDJOB 2											

BOTTOM

*****END OF 80-80 LIST*****

EXECUTIVE CONTROL OPERATION INCREM MAIN TIME INCREMENT = .05 HOURS

RECORD ID

EXECUTIVE CONTROL OPERATION COMPUT FROM STRUCTURE 1 TO STRUCTURE 10

RECORD ID 10 YEAR

STARTING TIME = .00 RAIN DEPTH = 1.70 RAIN DURATION = 1.00 RAIN TABLE NO. = 9 ANT. MOIST. COND = 2

ALTERNATE NO. = 1 STORM NO. = 1 MAIN TIME INCREMENT = .05 HOURS

OPERATION RUNOFF STRUCTURE 1

TR20 XEQ 03-30-88 11:19
REV PC 09/83(.2)

BLACK SQUIRREL CREEK BASIN - PRESENT CONDITIONS
10 YEAR AND 100 YEAR, 2-HOUR STORMS AMC-II

JOB 1 PASS 1
PAGE 1

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
1.40	17.48	(RUNOFF)
1.94	16.30	(RUNOFF)

RUNOFF VOLUME ABOVE BASEFLOW = .10 WATERSHED INCHES, 20.36 CFS-HRS, 1.68 ACRE-FEET; BASEFLOW = .00 CFS

***WARNING - LACK OF LOW FLOW DEFINITION FOR XSECT TABLE 1. MAX.FLOW LESS THAN 2ND TABLE VALUE.

OPERATION REACH CROSS SECTION 1

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
2.05	15.59	7379.63

OPERATION RUNOFF STRUCTURE 2

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
1.49	39.97	(RUNOFF)
1.97	37.69	(RUNOFF)

OPERATION ADDHYD STRUCTURE 2

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
1.54	53.48	(NULL)
1.99	53.18	(NULL)

RUNOFF VOLUME ABOVE BASEFLOW = .11 WATERSHED INCHES, 71.26 CFS-HRS, 5.89 ACRE-FEET; BASEFLOW = .00 CFS

OPERATION REACH CROSS SECTION 2

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
2.13	50.85	7240.00

OPERATION RUNOFF STRUCTURE 4

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
1.47	39.53	(RUNOFF)
1.95	36.27	(RUNOFF)

OPERATION ADDHYD STRUCTURE 4

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
2.01	86.06	(NULL)

TR20 XEQ 03-30-88 11:19
REV PC 09/83(.2)

BLACK SQUIRREL CREEK BASIN - PRESENT CONDITIONS
10 YEAR AND 100 YEAR, 2-HOUR STORMS AMC-II

JOB 1 PASS 1
PAGE 2

RUNOFF VOLUME ABOVE BASEFLOW = .12 WATERSHED INCHES, 121.65 CFS-HRS, 10.05 ACRE-FEET; BASEFLOW = .00 CFS

OPERATION RUNOFF STRUCTURE 3

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
1.59	56.00	(RUNOFF)
1.97	54.37	(RUNOFF)

RUNOFF VOLUME ABOVE BASEFLOW = .12 WATERSHED INCHES, 75.14 CFS-HRS, 6.21 ACRE-FEET; BASEFLOW = .00 CFS

***WARNING - LACK OF LOW FLOW DEFINITION FOR XSECT TABLE 3. MAX.FLOW LESS THAN 2ND TABLE VALUE.

OPERATION REACH CROSS SECTION 3

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
2.21	48.20	7175.56

OPERATION RUNOFF STRUCTURE 4

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
1.53	33.25	(RUNOFF)
1.97	31.30	(RUNOFF)

OPERATION ADDHYD STRUCTURE 4

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
2.06	77.62	(NULL)

RUNOFF VOLUME ABOVE BASEFLOW = .12 WATERSHED INCHES, 118.94 CFS-HRS, 9.83 ACRE-FEET; BASEFLOW = .00 CFS

OPERATION ADDHYD STRUCTURE 4

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
2.03	163.57	(NULL)

RUNOFF VOLUME ABOVE BASEFLOW = .12 WATERSHED INCHES, 240.59 CFS-HRS, 19.88 ACRE-FEET; BASEFLOW = .00 CFS

OPERATION REACH CROSS SECTION 4

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
2.11	162.52	6973.80

TR20 XEQ 03-30-88 11:19
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BLACK SQUIRREL CREEK BASIN - PRESENT CONDITIONS
10 YEAR AND 100 YEAR, 2-HOUR STORMS AMC-II

JOB 1 PASS 1
PAGE 3

OPERATION RUNOFF STRUCTURE 6

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
1.50	25.70	(RUNOFF)
1.94	23.62	(RUNOFF)

OPERATION ADDHYD STRUCTURE 6

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
2.08	184.89	(NULL)

RUNOFF VOLUME ABOVE BASEFLOW = .12 WATERSHED INCHES, 274.36 CFS-HRS, 22.67 ACRE-FEET; BASEFLOW = .00 CFS

OPERATION RUNOFF STRUCTURE 5

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
2.03	167.53	(RUNOFF)

RUNOFF VOLUME ABOVE BASEFLOW = .11 WATERSHED INCHES, 227.00 CFS-HRS, 18.76 ACRE-FEET; BASEFLOW = .00 CFS

OPERATION REACH CROSS SECTION 5

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
2.20	165.13	7002.42

OPERATION RUNOFF STRUCTURE 6

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
1.55	79.76	(RUNOFF)
1.94	75.32	(RUNOFF)

OPERATION ADDHYD STRUCTURE 6

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
2.06	236.61	(NULL)

RUNOFF VOLUME ABOVE BASEFLOW = .11 WATERSHED INCHES, 334.46 CFS-HRS, 27.64 ACRE-FEET; BASEFLOW = .00 CFS

OPERATION ADDHYD STRUCTURE 6

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PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
2.07	421.36	(NULL)

RUNOFF VOLUME ABOVE BASEFLOW = .12 WATERSHED INCHES, 608.82 CFS-HRS, 50.31 ACRE-FEET; BASEFLOW = .00 CFS

OPERATION REACH CROSS SECTION 6

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
2.21	410.98	6909.34

OPERATION RUNOFF STRUCTURE 7

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
1.45	81.94	(RUNOFF)

OPERATION ADDHYD STRUCTURE 7

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
2.11	470.11	(NULL)

RUNOFF VOLUME ABOVE BASEFLOW = .12 WATERSHED INCHES, 719.94 CFS-HRS, 59.50 ACRE-FEET; BASEFLOW = .00 CFS

OPERATION REACH CROSS SECTION 7

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
2.29	453.28	6836.02

OPERATION RUNOFF STRUCTURE 8

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
1.42	84.45	(RUNOFF)

OPERATION ADDHYD STRUCTURE 8

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
2.16	499.66	(NULL)

RUNOFF VOLUME ABOVE BASEFLOW = .13 WATERSHED INCHES, 834.59 CFS-HRS, 68.97 ACRE-FEET; BASEFLOW = .00 CFS

OPERATION REACH CROSS SECTION 8

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PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
2.66	422.37	6719.91

OPERATION RUNOFF STRUCTURE 9

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
1.47	80.96	(RUNOFF)

OPERATION ADDHYD STRUCTURE 9

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
2.60	429.82	(NULL)

RUNOFF VOLUME ABOVE BASEFLOW = .14 WATERSHED INCHES, 945.28 CFS-HRS, 78.12 ACRE-FEET; BASEFLOW = .00 CFS

OPERATION REACH CROSS SECTION 9

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
2.78	423.40	6563.65

OPERATION RUNOFF STRUCTURE 10

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
1.40	13.33	(RUNOFF)
1.90	10.99	(RUNOFF)

OPERATION ADDHYD STRUCTURE 10

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
2.78	423.58	(NULL)

RUNOFF VOLUME ABOVE BASEFLOW = .14 WATERSHED INCHES, 962.90 CFS-HRS, 79.57 ACRE-FEET; BASEFLOW = .00 CFS

EXECUTIVE CONTROL OPERATION ENDCMP COMPUTATIONS COMPLETED FOR PASS 1

RECORD ID

EXECUTIVE CONTROL OPERATION COMPUT FROM STRUCTURE 1 TO STRUCTURE 10

RECORD ID 100 YEAR

STARTING TIME = .00 RAIN DEPTH = 2.50 RAIN DURATION= 1.00 RAIN TABLE NO.= 8 ANT. MOIST. COND= 2
ALTERNATE NO.= 1 STORM NO.= 2 MAIN TIME INCREMENT = .05 HOURS

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OPERATION RUNOFF STRUCTURE 1

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
.92	84.60	(RUNOFF)
1.98	29.60	(RUNOFF)

RUNOFF VOLUME ABOVE BASEFLOW = .39 WATERSHED INCHES, 82.68 CFS-HRS, 6.83 ACRE-FEET; BASEFLOW = .00 CFS

OPERATION REACH CROSS SECTION 1

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
1.26	72.42	7380.08

OPERATION RUNOFF STRUCTURE 2

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
1.07	180.97	(RUNOFF)

OPERATION ADDHYD STRUCTURE 2

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
1.15	249.02	(NULL)

RUNOFF VOLUME ABOVE BASEFLOW = .42 WATERSHED INCHES, 273.60 CFS-HRS, 22.61 ACRE-FEET; BASEFLOW = .00 CFS

OPERATION REACH CROSS SECTION 2

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
1.36	224.23	7240.76

OPERATION RUNOFF STRUCTURE 4

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
1.02	175.68	(RUNOFF)

OPERATION ADDHYD STRUCTURE 4

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
1.25	376.32	(NULL)

RUNOFF VOLUME ABOVE BASEFLOW = .44 WATERSHED INCHES, 456.03 CFS-HRS, 37.69 ACRE-FEET; BASEFLOW = .00 CFS

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OPERATION RUNOFF STRUCTURE 3

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
1.17	248.27	(RUNOFF)

RUNOFF VOLUME ABOVE BASEFLOW = .45 WATERSHED INCHES, 276.68 CFS-HRS, 22.87 ACRE-FEET; BASEFLOW = .00 CFS

OPERATION REACH CROSS SECTION 3

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
1.50	197.25	7176.29

OPERATION RUNOFF STRUCTURE 4

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
1.11	146.29	(RUNOFF)

OPERATION ADDHYD STRUCTURE 4

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
1.33	315.08	(NULL)

RUNOFF VOLUME ABOVE BASEFLOW = .45 WATERSHED INCHES, 434.41 CFS-HRS, 35.90 ACRE-FEET; BASEFLOW = .00 CFS

OPERATION ADDHYD STRUCTURE 4

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
1.28	687.72	(NULL)

RUNOFF VOLUME ABOVE BASEFLOW = .44 WATERSHED INCHES, 890.44 CFS-HRS, 73.59 ACRE-FEET; BASEFLOW = .00 CFS

OPERATION REACH CROSS SECTION 4

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
1.38	679.57	6977.58

OPERATION RUNOFF STRUCTURE 6

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
1.07	111.02	(RUNOFF)

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OPERATION ADDHYD STRUCTURE 6

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
1.34	771.58	(NULL)

RUNOFF VOLUME ABOVE BASEFLOW = .45 WATERSHED INCHES, 1008.60 CFS-HRS, 83.35 ACRE-FEET; BASEFLOW = .00 CFS

OPERATION RUNOFF STRUCTURE 5

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
1.30	730.75	(RUNOFF)

RUNOFF VOLUME ABOVE BASEFLOW = .41 WATERSHED INCHES, 884.69 CFS-HRS, 73.11 ACRE-FEET; BASEFLOW = .00 CFS

OPERATION REACH CROSS SECTION 5

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
1.48	688.64	7006.23

OPERATION RUNOFF STRUCTURE 6

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
1.14	344.14	(RUNOFF)

OPERATION ADDHYD STRUCTURE 6

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
1.38	968.84	(NULL)

RUNOFF VOLUME ABOVE BASEFLOW = .43 WATERSHED INCHES, 1262.51 CFS-HRS, 104.33 ACRE-FEET; BASEFLOW = .00 CFS

OPERATION ADDHYD STRUCTURE 6

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
1.36	1738.97	(NULL)

RUNOFF VOLUME ABOVE BASEFLOW = .44 WATERSHED INCHES, 2271.11 CFS-HRS, 187.68 ACRE-FEET; BASEFLOW = .00 CFS

OPERATION REACH CROSS SECTION 6

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PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
1.51	1680.43	6912.76

OPERATION RUNOFF STRUCTURE 7

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
1.00	336.17	(RUNOFF)

OPERATION ADDHYD STRUCTURE 7

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
1.46	1881.75	(NULL)

RUNOFF VOLUME ABOVE BASEFLOW = .45 WATERSHED INCHES, 2616.56 CFS-HRS, 216.23 ACRE-FEET; BASEFLOW = .00 CFS

OPERATION REACH CROSS SECTION 7

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
1.73	1691.95	6841.46

OPERATION RUNOFF STRUCTURE 8

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
.94	347.24	(RUNOFF)

OPERATION ADDHYD STRUCTURE 8

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
1.71	1813.27	(NULL)

RUNOFF VOLUME ABOVE BASEFLOW = .47 WATERSHED INCHES, 2958.15 CFS-HRS, 244.46 ACRE-FEET; BASEFLOW = .00 CFS

OPERATION REACH CROSS SECTION 8

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
1.94	1729.18	6720.64

OPERATION RUNOFF STRUCTURE 9

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
1.01	329.42	(RUNOFF)

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OPERATION ADDHYD STRUCTURE 9

PEAK TIME(HRS)
1.93

PEAK DISCHARGE(CFS)
1843.69

PEAK ELEVATION(FEET)
(NULL)

RUNOFF VOLUME ABOVE BASEFLOW = .47 WATERSHED INCHES, 3301.00 CFS-HRS, 272.79 ACRE-FEET; BASEFLOW = .00 CFS

OPERATION REACH CROSS SECTION 9

PEAK TIME(HRS)
2.04

PEAK DISCHARGE(CFS)
1830.36

PEAK ELEVATION(FEET)
6566.13

OPERATION RUNOFF STRUCTURE 10

PEAK TIME(HRS)
.90

PEAK DISCHARGE(CFS)
56.33

PEAK ELEVATION(FEET)
(RUNOFF)

OPERATION ADDHYD STRUCTURE 10

PEAK TIME(HRS)
2.04

PEAK DISCHARGE(CFS)
1846.78

PEAK ELEVATION(FEET)
(NULL)

RUNOFF VOLUME ABOVE BASEFLOW = .48 WATERSHED INCHES, 3355.10 CFS-HRS, 277.27 ACRE-FEET; BASEFLOW = .00 CFS

EXECUTIVE CONTROL OPERATION ENDCMP COMPUTATIONS COMPLETED FOR PASS 2

RECORD ID

EXECUTIVE CONTROL OPERATION ENDJOB

RECORD ID

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION			RUNOFF AMOUNT (IN)	PEAK DISCHARGE				
						BEGIN (HR)	AMOUNT (IN)	DURATION (HR)		ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)	
ALTERNATE 1 STORM 1														
STRUCTURE 1	RUNOFF	.32	9	2	.05	.0	1.97	2.00	.10	---	1.40	17.48	53.8	
XSECTION 1	REACH	.32	9	2	.05	.0	1.97	2.00	.10	7379.63	2.05	15.59	48.0	
STRUCTURE 2	RUNOFF	.68	9	2	.05	.0	1.97	2.00	.12	---	1.49	39.97	58.8	
STRUCTURE 2	ADDHYD	1.00	9	2	.05	.0	1.97	2.00	.11	---	1.54	53.48	53.2	
XSECTION 2	REACH	1.00	9	2	.05	.0	1.97	2.00	.11	7240.00	2.13	50.85	50.6	
STRUCTURE 4	RUNOFF	.62	9	2	.05	.0	1.97	2.00	.13	---	1.47	39.53	63.9	
STRUCTURE 4	ADDHYD	1.62	9	2	.05	.0	1.97	2.00	.12	---	2.01	86.06	53.0	
STRUCTURE 3	RUNOFF	.96	9	2	.05	.0	1.97	2.00	.12	---	1.59	56.00	58.2	
XSECTION 3	REACH	.96	9	2	.05	.0	1.97	2.00	.12	7175.56	2.21	48.20	50.1	
STRUCTURE 4	RUNOFF	.53	9	2	.05	.0	1.97	2.00	.13	---	1.53	33.25	62.6	
STRUCTURE 4	ADDHYD	1.49	9	2	.05	.0	1.97	2.00	.12	---	2.06	77.62	52.0	
STRUCTURE 4	ADDHYD	3.12	9	2	.05	.0	1.97	2.00	.12	---	2.03	163.57	52.5	
XSECTION 4	REACH	3.12	9	2	.05	.0	1.97	2.00	.12	6973.80	2.11	162.52	52.1	
STRUCTURE 6	RUNOFF	.38	9	2	.05	.0	1.97	2.00	.14	---	1.50	25.70	67.1	
STRUCTURE 6	ADDHYD	3.50	9	2	.05	.0	1.97	2.00	.12	---	2.08	184.89	52.8	
STRUCTURE 5	RUNOFF	3.31	9	2	.05	.0	1.97	2.00	.11	---	2.03	167.53	50.7	
XSECTION 5	REACH	3.31	9	2	.05	.0	1.97	2.00	.11	7002.42	2.20	165.13	50.0	
STRUCTURE 6	RUNOFF	1.23	9	2	.05	.0	1.97	2.00	.13	---	1.55	79.76	64.6	
STRUCTURE 6	ADDHYD	4.54	9	2	.05	.0	1.97	2.00	.11	---	2.06	236.61	52.1	
STRUCTURE 6	ADDHYD	8.04	9	2	.05	.0	1.97	2.00	.12	---	2.07	421.36	52.4	
XSECTION 6	REACH	8.04	9	2	.05	.0	1.97	2.00	.12	6909.34	2.21	410.98	51.1	
STRUCTURE 7	RUNOFF	.94	9	2	.05	.0	1.97	2.00	.18	---	1.45	81.94	87.3	
STRUCTURE 7	ADDHYD	8.98	9	2	.05	.0	1.97	2.00	.12	---	2.11	470.11	52.4	
XSECTION 7	REACH	8.98	9	2	.05	.0	1.97	2.00	.12	6836.02	2.29	453.28	50.5	
STRUCTURE 8	RUNOFF	.87	9	2	.05	.0	1.97	2.00	.21	---	1.42	84.45	97.5	
STRUCTURE 8	ADDHYD	9.84	9	2	.05	.0	1.97	2.00	.13	---	2.16	499.66	50.8	
XSECTION 8	REACH	9.84	9	2	.05	.0	1.97	2.00	.13	6719.91	2.66	422.37	42.9	
STRUCTURE 9	RUNOFF	.93	9	2	.05	.0	1.97	2.00	.19	---	1.47	80.96	87.5	
STRUCTURE 9	ADDHYD	10.77	9	2	.05	.0	1.97	2.00	.14	---	2.60	429.82	39.9	
XSECTION 9	REACH	10.77	9	2	.05	.0	1.97	2.00	.14	6563.65	2.78	423.40	39.3	
STRUCTURE 10	RUNOFF	.14	9	2	.05	.0	1.97	2.00	.19	---	1.40	13.33	92.5	
STRUCTURE 10	ADDHYD	10.91	9	2	.05	.0	1.97	2.00	.14	---	2.78	423.58	38.8	

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION			RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
						BEGIN (HR)	AMOUNT (IN)	DURATION (HR)		ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
ALTERNATE 1 STORM 2													
STRUCTURE 1	RUNOFF	.32	8	2	.05	.0	2.89	2.00	.39	---	.92	84.60	260.3
XSECTION 1	REACH	.32	8	2	.05	.0	2.89	2.00	.39	7380.08	1.26	72.42	222.8
STRUCTURE 2	RUNOFF	.68	8	2	.05	.0	2.89	2.00	.44	---	1.07	180.97	266.1
STRUCTURE 2	ADDHYD	1.00	8	2	.05	.0	2.89	2.00	.42	---	1.15	249.02	247.8
XSECTION 2	REACH	1.00	8	2	.05	.0	2.89	2.00	.42	7240.76	1.36	224.23	223.1
STRUCTURE 4	RUNOFF	.62	8	2	.05	.0	2.89	2.00	.46	---	1.02	175.68	283.8
STRUCTURE 4	ADDHYD	1.62	8	2	.05	.0	2.89	2.00	.44	---	1.25	376.32	231.7
STRUCTURE 3	RUNOFF	.96	8	2	.05	.0	2.89	2.00	.45	---	1.17	248.27	258.1
XSECTION 3	REACH	.96	8	2	.05	.0	2.89	2.00	.45	7176.29	1.50	197.25	205.0
STRUCTURE 4	RUNOFF	.53	8	2	.05	.0	2.89	2.00	.46	---	1.11	146.29	275.5
STRUCTURE 4	ADDHYD	1.49	8	2	.05	.0	2.89	2.00	.45	---	1.33	315.08	211.0
STRUCTURE 4	ADDHYD	3.12	8	2	.05	.0	2.89	2.00	.44	---	1.28	687.72	220.6
XSECTION 4	REACH	3.12	8	2	.05	.0	2.89	2.00	.44	6977.58	1.38	679.57	218.0
STRUCTURE 6	RUNOFF	.38	8	2	.05	.0	2.89	2.00	.48	---	1.07	111.02	289.9
STRUCTURE 6	ADDHYD	3.50	8	2	.05	.0	2.89	2.00	.45	---	1.34	771.58	220.5
STRUCTURE 5	RUNOFF	3.31	8	2	.05	.0	2.89	2.00	.41	---	1.30	730.75	221.1
XSECTION 5	REACH	3.31	8	2	.05	.0	2.89	2.00	.41	7006.23	1.48	688.64	208.4
STRUCTURE 6	RUNOFF	1.23	8	2	.05	.0	2.89	2.00	.47	---	1.14	344.14	278.9
STRUCTURE 6	ADDHYD	4.54	8	2	.05	.0	2.89	2.00	.43	---	1.38	968.84	213.4
STRUCTURE 6	ADDHYD	8.04	8	2	.05	.0	2.89	2.00	.44	---	1.36	1738.97	216.3
XSECTION 6	REACH	8.04	8	2	.05	.0	2.89	2.00	.44	6912.76	1.51	1680.43	209.0
STRUCTURE 7	RUNOFF	.94	8	2	.05	.0	2.89	2.00	.57	---	1.00	336.17	358.0
STRUCTURE 7	ADDHYD	8.98	8	2	.05	.0	2.89	2.00	.45	---	1.46	1881.75	209.6
XSECTION 7	REACH	8.98	8	2	.05	.0	2.89	2.00	.45	6841.46	1.73	1691.95	188.5
STRUCTURE 8	RUNOFF	.87	8	2	.05	.0	2.89	2.00	.61	---	.94	347.24	401.0
STRUCTURE 8	ADDHYD	9.84	8	2	.05	.0	2.89	2.00	.47	---	1.71	1813.27	184.2
XSECTION 8	REACH	9.84	8	2	.05	.0	2.89	2.00	.47	6720.64	1.94	1729.18	175.7
STRUCTURE 9	RUNOFF	.93	8	2	.05	.0	2.89	2.00	.57	---	1.01	329.42	356.1
STRUCTURE 9	ADDHYD	10.77	8	2	.05	.0	2.89	2.00	.47	---	1.93	1843.69	171.2
XSECTION 9	REACH	10.77	8	2	.05	.0	2.89	2.00	.47	6566.13	2.04	1830.36	170.0
STRUCTURE 10	RUNOFF	.14	8	2	.05	.0	2.89	2.00	.58	---	.90	56.33	391.2
STRUCTURE 10	ADDHYD	10.91	8	2	.05	.0	2.89	2.00	.48	---	2.04	1846.78	169.2

SUMMARY TABLE 2 - SELECTED MODIFIED ATT-KIN REACH ROUTINGS IN ORDER OF STANDARD EXECUTIVE CONTROL INSTRUCTIONS

(A STAR(*) AFTER VOLUME ABOVE BASE(IN) INDICATES A HYDROGRAPH TRUNCATED AT A VALUE EXCEEDING BASE + 10% OF PEAK
A QUESTION MARK(?) AFTER COEFF.(C) INDICATES PARAMETERS OUTSIDE ACCEPTABLE LIMITS, SEE PREVIOUS WARNINGS)

HYDROGRAPH INFORMATION									ROUTING PARAMETERS							PEAK			
XSEC REACH		INFLOW		OUTFLOW		OUTFLOW+		BASE- FLOW	VOLUME ABOVE BASE	MAIN TIME INCR	ITER- ATION #	Q AND A EQUATION		LENGTH FACTOR	PEAK RATIO O/I	S/Q @PEAK (K)	ATT- KIN COEFF (C)	TRAVEL TIME	
ID	LENGTH (FT)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)					COEFF (X)	POWER (M)					RATIO (K#)	STOR- AGE (HR)
ALTERNATE		1	STORM		1														
1	4000	17	1.4	16	2.0	---	---	0	.10	.05	1	3.82	1.01	.241	.892	1017	.16	.65	.28
2	5200	53	1.6	51	2.2	---	---	0	.11	.05	1	2.09	1.26	.191	.950	1020	.16	.60	.28
3	8600	56	1.6	48	2.2	---	---	0	.12	.05	1	2.20	1.24	.358	.861	1702	.10	.60	.48
4	3300	163	2.0	162	2.1	---	---	0	.12	.05	1	1.91	1.49	.021	.994	266	.51	.05	.07
5	6700	167	2.0	165	2.2	---	---	0	.11	.05	1	2.06	1.47	.071	.986	546	.28	.10	.15
6	5100	421	2.0	411	2.2	---	---	0	.12	.05	1	4.48	1.13	.098	.976	593	.26	.15	.16
7	8600	470	2.1	453	2.3	---	---	0	.12	.05	1	4.55	1.22	.096	.964	664	.24	.20	.19
8	7900	500	2.2	422	2.7	---	---	0	.13	.05	7	1.19	1.23	.281	.845	1740	.10	.40	.49
9	5000	430	2.6	423	2.8	---	---	0	.14	.05	1	3.69	1.15	.064	.985	630	.25	.20	.18
ALTERNATE		1	STORM		2														
1	4000	84	.9	72	1.3	---	---	0	.39	.05	2	3.25	1.10	.226	.858	828	.20	.35	.23
2	5200	249	1.1	224	1.4	---	---	0	.42	.05	1	2.05	1.26	.161	.900	738	.22	.20	.21
3	8600	248	1.1	197	1.5	---	---	0	.45	.05	1	2.04	1.26	.300	.795	1225	.14	.35	.35
4	3300	687	1.3	679	1.4	---	---	0	.44	.05	1	2.36	1.33	.031	.988	255	.52	.10	.07
5	6700	731	1.3	688	1.5	---	---	0	.41	.05	3	2.48	1.31	.089	.941	527	.29	.20	.15
6	5100	1738	1.4	1680	1.5	---	---	0	.44	.05	1	3.28	1.21	.069	.967	428	.35	.15	.12
7	8600	1881	1.5	1691	1.8	---	---	0	.45	.05	1	9.58	1.00	.179	.899	898	.18	.30	.25
8	7900	1813	1.7	1729	2.0	---	---	0	.47	.05	1	.189	1.63	.074	.954	728	.22	.25	.20
9	5000	1843	2.0	1830	2.0	---	---	0	.47	.05	1	1.55	1.38	.026	.993	330	.43	.10	.09

TR20 XEQ 03-30-88 11:19
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BLACK SQUIRREL CREEK BASIN - PRESENT CONDITIONS
10 YEAR AND 100 YEAR, 2-HOUR STORMS AMC-II

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SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS.....	
		1	2
<u>STRUCTURE 10</u>	<u>10.91</u>		
ALTERNATE 1		423.58	1846.78
<u>STRUCTURE 9</u>	<u>10.77</u>		
ALTERNATE 1		429.82	1843.69
<u>STRUCTURE 8</u>	<u>9.84</u>		
ALTERNATE 1		499.66	1813.27
<u>STRUCTURE 7</u>	<u>8.98</u>		
ALTERNATE 1		470.11	1881.75
<u>STRUCTURE 6</u>	<u>8.04</u>		
ALTERNATE 1		421.36	1738.97
<u>STRUCTURE 5</u>	<u>3.31</u>		
ALTERNATE 1		167.53	730.75
<u>STRUCTURE 4</u>	<u>3.12</u>		
ALTERNATE 1		163.57	687.72
<u>STRUCTURE 3</u>	<u>.96</u>		
ALTERNATE 1		56.00	248.27
<u>STRUCTURE 2</u>	<u>1.00</u>		
ALTERNATE 1		53.48	249.02
<u>STRUCTURE 1</u>	<u>.32</u>		
ALTERNATE 1		17.48	84.60
<u>XSECTION 1</u>	<u>.32</u>		
ALTERNATE 1		15.59	72.42
<u>XSECTION 2</u>	<u>1.00</u>		
ALTERNATE 1		50.85	224.23
<u>XSECTION 3</u>	<u>.96</u>		
ALTERNATE 1		48.20	197.25
<u>XSECTION 4</u>	<u>3.12</u>		
ALTERNATE 1		162.52	679.57

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BLACK SQUIRREL CREEK BASIN - PRESENT CONDITIONS
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SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

XSECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS.....	
		1	2
<u>XSECTION 5</u>	<u>3.31</u>		
ALTERNATE 1		165.13	688.64
<u>XSECTION 6</u>	<u>8.04</u>		
ALTERNATE 1		410.98	1680.43
<u>XSECTION 7</u>	<u>8.98</u>		
ALTERNATE 1		453.28	1691.95
<u>XSECTION 8</u>	<u>9.84</u>		
ALTERNATE 1		422.37	1729.18
<u>XSECTION 9</u>	<u>10.77</u>		
ALTERNATE 1		423.40	1830.36

MAIN - UNEXPECTED RECORD FOUND(IGNORED) >>>BOTTOM

<<<

*****80-80 LIST OF INPUT DATA FOR TR-20 HYDROLOGY*****

B TR-20 SUMMARY NOPLOTS

TLE BLACK SQUIRREL CREEK BASIN - PRESENT CONDITIONS

TITLE 10 YEAR AND 100 YEAR STORMS 24 HR

RAINFL 1	0.5				
0.0000	0.0025	0.0050	0.0075	0.0100	
0.0150	0.0200	0.0250	0.0300	0.0500	
0.0600	0.1000	0.7000	0.7500	0.7800	
0.8000	0.8200	0.8300	0.8400	0.8500	
0.8600	0.8650	0.8700	0.8850	0.8900	
0.9000	0.9050	0.9100	0.9150	0.9213	
0.9275	0.9338	0.9400	0.9450	0.9500	
0.9550	0.9600	0.9650	0.9700	0.9750	
0.9800	0.9825	0.9850	0.9875	0.9900	
0.9925	0.9950	0.9975	1.0000	1.0000	

ENDTBL

XSECTN 001	1.0		
7379.5	0.0	0.0	
7379.7	25.0	6.4	
7379.9	50.0	12.7	
7380.3	100.0	21.7	
7380.5	150.0	30.3	
7380.7	200.0	38.3	
7381.2	400.0	64.3	
7381.6	600.0	85.1	
7382.0	800.0	105.0	
7383.3	1000.0	123.8	
7384.0	1500.0	168.2	

ENDTBL

XSECTN 002	1.0		
7239.0	0.0	0.0	
7240.0	50.0	12.5	
7240.3	100.0	21.7	
7240.5	150.0	30.1	
7240.7	200.0	37.9	
7241.2	400.0	63.7	
7241.6	600.0	85.1	
7242.0	800.0	105.3	
7242.3	1000.0	124.0	
7243.0	1500.0	167.5	

9 ENDTBL

XSECTN 003	1.0		
7174.6	0.0	0.0	
7175.6	50.0	12.5	
7175.9	100.0	21.9	
7176.1	150.0	30.4	
7176.3	200.0	38.1	

*****80-80 LIST OF INPUT DATA (CONTINUED)*****

	7176.8	400.0	63.4
	7177.2	600.0	85.4
B	7177.6	800.0	104.9
R	7177.9	1000.0	123.1
	7178.6	1500.0	167.8

ENDTBL

2 XSECTN 004

	1.0		
	6971.4	0.0	0.0
	6972.6	50.0	8.9
B	6973.2	100.0	14.2
	6973.7	150.0	18.5
	6974.1	200.0	22.7
B	6975.6	400.0	36.3
B	6976.7	600.0	47.9
	6978.9	800.0	109.6
	6979.3	1000.0	128.5
B	6980.2	1500.0	177.3
	6980.9	2000.0	213.4
	6982.1	3000.0	283.1

9 ENDTBL

3 XSECTN 005

	1.0		
	7000.0	0.0	0.0
B	7001.2	50.0	8.8
B	7001.8	100.0	14.2
	7002.3	150.0	18.6
	7002.7	200.0	22.6
B	7004.1	400.0	36.2
	7005.3	600.0	47.9
	7007.4	800.0	108.5
B	7007.9	1000.0	131.7
	7008.8	1500.0	176.1
	7009.5	2000.0	215.4
B	7010.7	3000.0	283.1

9 ENDTBL

XSECTN 006

	1.0		
	6905.0	0.0	0.0
B	6906.4	50.0	8.3
	6907.1	100.0	14.8
	6907.6	150.0	21.4
B	6908.1	200.0	29.0
	6909.3	400.0	53.0
	6910.1	600.0	75.0
B	6910.8	800.0	95.9
B	6911.4	1000.0	114.6
	6913.4	2000.0	197.3
	6914.4	3000.0	262.6

*****180-80 LIST OF INPUT DATA (CONTINUED)*****

	6915.9	4000.0	322.6				
	6917.0	5000.0	380.2				
9 ENDTBL							
XSECTN 007	1.0						
	6830.0	0.0	0.0				
8	6832.7	100.0	12.5				
8	6833.9	200.0	21.3				
	6835.7	400.0	38.6				
8	6836.9	600.0	54.8				
8	6837.9	800.0	69.4				
	6838.9	1000.0	86.8				
	6842.6	2000.0	212.6				
8	6844.2	3000.0	307.1				
	6845.3	4000.0	388.4				
	6846.3	5000.0	460.4				
9 ENDTBL							
XSECTN 008	1.0						
	6718.8	0.0	0.0				
8	6719.4	100.0	33.6				
8	6719.5	200.0	58.2				
	6719.9	400.0	116.9				
	6720.0	600.0	131.4				
8	6720.1	800.0	157.0				
	6720.2	1000.0	179.2				
	6720.5	1500.0	240.8				
8	6720.8	2000.0	291.7				
8	6721.2	3000.0	388.4				
	6721.6	4000.0	477.9				
	6722.0	5000.0	560.0				
9 ENDTBL							
XSECTN 009	1.0						
	6560.0	0.0	0.0				
8	6561.4	100.0	15.1				
	6562.2	200.0	24.2				
	6563.6	400.0	59.8				
8	6564.0	600.0	75.7				
8	6564.5	800.0	93.9				
	6564.8	1000.0	108.1				
8	6565.6	1500.0	144.7				
8	6566.4	2000.0	178.0				
	6567.6	3000.0	238.9				
	6568.7	4000.0	294.6				
8	6569.7	5000.0	347.7				
9 ENDTBL							
RUNOFF 1 01 5	0.325	63.2	0.31 1	1	1	BN A/PT1	
6 REACH 3 001 5 6	4000.		1			PT 1-2	

*****B0-B0 LIST OF INPUT DATA (CONTINUED)*****

```

RUNOFF 1 02 7 0.680 64.4 0.45 1 BASIN B
ADDHYD 4 02 6 7 5 1 1 1 PT 2
6 REACH 3 002 5 6 5200. 1 PT 2-4
RUNOFF 1 04 7 0.619 65.0 0.43 1 BASIN D
ADDHYD 4 24 6 7 1 1 1 1 PT 4W
6 RUNOFF 1 03 5 0.962 64.7 0.56 1 1 1 BN C/PT3
6 REACH 3 003 5 6 8600. 1 PT 3-4
RUNOFF 1 04 7 0.531 65.1 0.50 1 BASIN E
ADDHYD 4 44 6 7 5 1 1 1 PT 4E
6 ADDHYD 4 04 5 1 6 1 1 1 PT 4
REACH 3 004 6 7 3300. 1 PT 4-6
RUNOFF 1 06 5 0.380 65.6 0.48 1 BASIN G
6 ADDHYD 4 26 7 5 2 1 1 1 PT 6W
4 RUNOFF 1 05 6 3.305 63.8 0.71 1 1 1 BN F/PT5
REACH 3 005 6 7 6700. 1 PT 5-6
6 RUNOFF 1 06 5 1.234 65.5 0.54 1 BASIN H
6 ADDHYD 4 46 7 5 6 1 1 1 PT 6E
ADDHYD 4 06 6 2 7 1 1 1 PT 6
REACH 3 006 7 5 5100. 1 PT 6-7
6 RUNOFF 1 07 6 0.939 68.0 0.46 1 BASIN I
ADDHYD 4 07 5 6 7 1 1 1 1 PT 7
REACH 3 007 7 5 8600. 1 PT 7-8
6 RUNOFF 1 08 6 0.866 69.0 0.42 1 1 BASIN J
4 ADDHYD 4 08 5 6 7 1 1 1 PT 8
REACH 3 008 7 5 7900. 1 PT 8-9
6 RUNOFF 1 09 6 0.925 68.1 0.48 1 BASIN K
6 ADDHYD 4 09 5 6 7 1 1 1 PT 9
REACH 3 009 7 5 5000. 1 PT 9-10
RUNOFF 1 10 6 0.144 68.3 0.38 1 BASIN L
6 ADDHYD 4 10 5 6 7 1 1 1 PT 10
ENDATA
INCREM 6 0.1
7 COMPUT 7 01 10 3.0 1.0 1 2 01 01 10 YEAR
ENDCMP 1
COMPUT 7 01 10 4.6 1.0 1 2 01 02 100 YEAR
ENDCMP 1
ENDJOB 2

```

*****END OF B0-B0 LIST*****

EXECUTIVE CONTROL OPERATION INCREM MAIN TIME INCREMENT = .10 HOURS

RECORD ID

EXECUTIVE CONTROL OPERATION COMPUT FROM STRUCTURE 1 TO STRUCTURE 10

RECORD ID 10 YEAR

STARTING TIME = .00 RAIN DEPTH = 3.00 RAIN DURATION= 1.00 RAIN TABLE NO.= 1 AMT. MOIST. COND= 2
 ALTERNATE NO.= 1 STORM NO.= 1 MAIN TIME INCREMENT = .10 HOURS

OPERATION RUNOFF STRUCTURE 1

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.13	85.91	(RUNOFF)
7.96	8.20	(RUNOFF)
9.96	4.42	(RUNOFF)
11.50	6.57	(RUNOFF)
12.50	4.53	(RUNOFF)

23.87

1.32

(RUNOFF)

RUNOFF VOLUME ABOVE BASEFLOW = .44 WATERSHED INCHES, 92.23 CFS-HRS, 7.62 ACRE-FEET; BASEFLOW = .00 CFS

OPERATION REACH CROSS SECTION 1

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.44	50.94	7379.91
10.17	4.38	7379.54
11.81	5.55	7379.54
12.79	4.15	7379.53
20.15	2.58	7379.52
24.10	1.32	7379.51

OPERATION RUNOFF STRUCTURE 2

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.21	158.76	(RUNOFF)
7.95	18.35	(RUNOFF)
9.96	9.82	(RUNOFF)
11.58	13.62	(RUNOFF)
12.57	9.69	(RUNOFF)
15.63	6.83	(RUNOFF)
19.91	5.71	(RUNOFF)
23.95	2.94	(RUNOFF)

OPERATION ADDHYD STRUCTURE 2

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BLACK SQUIRREL CREEK BASIN - PRESENT CONDITIONS
10 YEAR AND 100 YEAR STORMS

JOB 1 PASS 1
PAGE 1

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.25	181.51	(NULL)
9.96	14.17	(NULL)
11.62	18.21	(NULL)
12.60	13.47	(NULL)
15.72	9.87	(NULL)
19.94	8.28	(NULL)
23.95	4.26	(NULL)

RUNOFF VOLUME ABOVE BASEFLOW = .47 WATERSHED INCHES, 304.21 CFS-HRS, 25.14 ACRE-FEET; BASEFLOW = .00 CFS

OPERATION REACH CROSS SECTION 2

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.50	140.08	7240.46
10.07	14.13	7239.28
11.84	16.26	7239.33
12.78	12.85	7239.26
16.05	9.85	7239.20
20.06	8.27	7239.17
24.05	4.24	7239.08

OPERATION RUNOFF STRUCTURE 4

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.20	159.13	(RUNOFF)
7.95	17.29	(RUNOFF)
9.95	9.23	(RUNOFF)
11.57	12.95	(RUNOFF)
12.56	9.14	(RUNOFF)
15.62	6.40	(RUNOFF)
19.95	5.36	(RUNOFF)
23.86	2.73	(RUNOFF)

OPERATION ADDHYD STRUCTURE 24

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.30	240.43	(NULL)
9.96	23.34	(NULL)
11.68	26.98	(NULL)
12.62	21.39	(NULL)
15.95	16.21	(NULL)
19.96	13.62	(NULL)
23.88	6.96	(NULL)

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BLACK SQUIRREL CREEK BASIN - PRESENT CONDITIONS
10 YEAR AND 100 YEAR STORMS

JOB 1 PASS 1
PAGE 2

RUNOFF VOLUME ABOVE BASEFLOW = .48 WATERSHED INCHES, 506.03 CFS-HRS, 41.82 ACRE-FEET; BASEFLOW = .00 CFS

OPERATION RUNOFF STRUCTURE 3

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.28	193.55	(RUNOFF)
9.97	14.08	(RUNOFF)
11.63	18.39	(RUNOFF)
12.62	13.40	(RUNOFF)
15.72	9.78	(RUNOFF)
19.95	8.20	(RUNOFF)
23.86	4.19	(RUNOFF)

RUNOFF VOLUME ABOVE BASEFLOW = .49 WATERSHED INCHES, 306.75 CFS-HRS, 25.35 ACRE-FEET; BASEFLOW = .00 CFS

OPERATION REACH CROSS SECTION 3

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.69	124.30	7176.00
12.01	15.06	7174.90
12.91	12.64	7174.85
16.22	9.71	7174.79
20.17	8.16	7174.76
24.10	4.18	7174.68

OPERATION RUNOFF STRUCTURE 4

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.23	125.63	(RUNOFF)
9.96	7.95	(RUNOFF)
11.60	10.77	(RUNOFF)
12.59	7.71	(RUNOFF)
15.66	5.51	(RUNOFF)
19.96	4.61	(RUNOFF)
23.95	2.36	(RUNOFF)

OPERATION ADDHYD STRUCTURE 44

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BLACK SQUIRREL CREEK BASIN - PRESENT CONDITIONS
10 YEAR AND 100 YEAR STORMS

JOB 1 PASS 1
PAGE 3

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.56	175.41	(NULL)
11.77	22.49	(NULL)
12.61	19.70	(NULL)
16.01	15.16	(NULL)
19.96	12.75	(NULL)
23.95	6.54	(NULL)

RUNOFF VOLUME ABOVE BASEFLOW = .50 WATERSHED INCHES, 481.41 CFS-HRS, 39.78 ACRE-FEET; BASEFLOW = .00 CFS

OPERATION ADDHYD STRUCTURE 4

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.34	404.51	(NULL)
11.70	49.29	(NULL)
12.61	41.09	(NULL)
15.98	31.36	(NULL)
19.96	26.37	(NULL)
23.91	13.49	(NULL)

RUNOFF VOLUME ABOVE BASEFLOW = .49 WATERSHED INCHES, 987.44 CFS-HRS, 81.60 ACRE-FEET; BASEFLOW = .00 CFS

*** WARNING REACH 4 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION REACH CROSS SECTION 4

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.45	400.64	6975.60
11.81	49.20	6972.58
12.72	41.05	6972.39
16.08	31.36	6972.15
20.06	26.37	6972.03
24.02	13.49	6971.72

OPERATION RUNOFF STRUCTURE 6

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.22	96.63	(RUNOFF)
9.96	5.84	(RUNOFF)
11.59	7.96	(RUNOFF)
12.58	5.67	(RUNOFF)
19.90	3.36	(RUNOFF)
23.95	1.73	(RUNOFF)

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BLACK SQUIRREL CREEK BASIN - PRESENT CONDITIONS
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JOB 1 PASS 1
PAGE 4

ERATION ADDHYD STRUCTURE 26

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.40	466.69	(NULL)
11.77	55.69	(NULL)
12.68	46.43	(NULL)
16.04	35.35	(NULL)
19.99	29.69	(NULL)
23.96	15.22	(NULL)

RUNOFF VOLUME ABOVE BASEFLOW = .50 WATERSHED INCHES, 1117.27 CFS-HRS, 92.33 ACRE-FEET; BASEFLOW = .00 CFS

ERATION RUNOFF STRUCTURE 5

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.39	496.49	(RUNOFF)
9.95	45.91	(RUNOFF)
11.71	55.32	(RUNOFF)
12.68	42.57	(RUNOFF)
15.90	32.10	(RUNOFF)
19.92	26.94	(RUNOFF)
23.86	13.82	(RUNOFF)

RUNOFF VOLUME ABOVE BASEFLOW = .46 WATERSHED INCHES, 982.76 CFS-HRS, 81.21 ACRE-FEET; BASEFLOW = .00 CFS

ERATION REACH CROSS SECTION 5

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.55	470.53	7004.52
10.06	45.87	7001.10
11.87	53.79	7001.25
12.82	41.96	7001.01
16.06	32.09	7000.77
20.05	26.94	7000.65
23.97	13.81	7000.33

OPERATION RUNOFF STRUCTURE 6

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PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.26	278.04	(RUNOFF)
9.96	18.83	(RUNOFF)
11.62	24.86	(RUNOFF)
12.61	18.03	(RUNOFF)
15.70	13.03	(RUNOFF)
19.93	10.87	(RUNOFF)
23.86	5.56	(RUNOFF)

OPERATION ADDHYD STRUCTURE 46

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.45	651.23	(NULL)
9.97	64.65	(NULL)
11.78	74.66	(NULL)
12.73	58.40	(NULL)
15.96	45.06	(NULL)
19.96	37.80	(NULL)
23.90	19.36	(NULL)

RUNOFF VOLUME ABOVE BASEFLOW = .48 WATERSHED INCHES, 1400.50 CFS-HRS, 115.74 ACRE-FeET; BASEFLOW = .00 CFS

OPERATION ADDHYD STRUCTURE 6

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.43	1117.90	(NULL)
11.77	130.35	(NULL)
12.71	104.75	(NULL)
15.98	80.40	(NULL)
19.97	67.49	(NULL)
23.94	34.56	(NULL)

RUNOFF VOLUME ABOVE BASEFLOW = .49 WATERSHED INCHES, 2517.77 CFS-HRS, 208.07 ACRE-FeET; BASEFLOW = .00 CFS

OPERATION REACH CROSS SECTION 6

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.64	1047.86	6911.50
11.95	125.94	6907.36
12.86	103.53	6907.14
16.15	80.35	6906.82
20.09	67.43	6906.64
24.05	34.57	6905.97

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OPERATION RUNOFF STRUCTURE 7

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.20	313.31	(RUNOFF)
9.96	16.23	(RUNOFF)
11.58	22.27	(RUNOFF)
12.57	15.72	(RUNOFF)
15.63	11.07	(RUNOFF)
19.95	9.20	(RUNOFF)
23.86	4.68	(RUNOFF)

OPERATION ADDHYD STRUCTURE 7

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.60	1153.41	(NULL)
11.90	139.11	(NULL)
12.76	116.32	(NULL)
16.05	91.25	(NULL)
19.99	76.55	(NULL)
23.95	39.23	(NULL)

TIME(HRS)	FIRST HYDROGRAPH POINT = .00 HOURS				TIME INCREMENT = .10 HOURS				DRAINAGE AREA = 8.98 SQ.MI.		
5.00	DISCHG	.00	.00	.00	.00	.00	.00	.00	.25	10.16	56.91
6.00	DISCHG	178.79	381.87	622.25	843.30	1018.89	1120.59	1153.36	1125.30	1055.13	958.86
7.00	DISCHG	854.10	754.83	665.65	587.78	520.85	464.11	416.73	377.80	346.35	321.68
8.00	DISCHG	302.70	287.84	274.42	260.79	245.92	230.05	213.85	198.37	184.27	172.00
9.00	DISCHG	161.85	153.80	147.61	142.95	139.52	137.04	135.29	134.09	133.30	132.82
10.00	DISCHG	132.55	132.09	130.58	127.48	122.74	116.57	109.57	102.42	95.63	89.59
11.00	DISCHG	84.56	81.19	81.17	85.13	93.31	104.90	117.99	129.30	136.68	139.11
12.00	DISCHG	136.82	131.19	124.46	118.81	115.19	114.08	114.84	116.05	116.17	114.67
13.00	DISCHG	111.33	106.63	101.19	95.72	90.63	86.24	82.65	79.83	77.65	76.01
14.00	DISCHG	74.81	74.03	73.83	74.26	75.31	76.88	78.78	80.76	82.63	84.30
15.00	DISCHG	85.68	86.80	87.69	88.43	89.05	89.60	90.08	90.49	90.81	91.05
16.00	DISCHG	91.21	91.22	90.90	90.14	88.90	87.26	85.40	83.50	81.71	80.13
17.00	DISCHG	78.81	77.76	76.96	76.36	75.92	75.62	75.41	75.28	75.20	75.17
18.00	DISCHG	75.16	75.18	75.22	75.27	75.32	75.39	75.45	75.53	75.60	75.68
19.00	DISCHG	75.76	75.84	75.92	75.99	76.07	76.15	76.23	76.31	76.39	76.47
20.00	DISCHG	76.55	76.41	75.63	73.89	71.17	67.58	63.49	59.31	55.34	51.80
21.00	DISCHG	48.80	46.38	44.49	43.04	41.94	41.11	40.51	40.06	39.74	39.51
22.00	DISCHG	39.34	39.22	39.14	39.09	39.05	39.03	39.02	39.02	39.03	39.04
23.00	DISCHG	39.05	39.06	39.08	39.10	39.11	39.13	39.15	39.17	39.19	39.21
24.00	DISCHG	39.21	39.02	38.14	36.33	33.48	29.78	25.56	21.25	17.15	13.49
25.00	DISCHG	10.40	7.90	5.94	4.44	3.29	2.44	1.79	1.32	.96	.71
26.00	DISCHG	.51	.37	.27	.19	.13	.09	.06	.04	.03	.02
27.00	DISCHG	.02	.01	.01	.00						

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RUNOFF VOLUME ABOVE BASEFLOW = .50 WATERSHED INCHES, 2897.17 CFS-HRS, 239.42 ACRE-FEET; BASEFLOW = .00 CFS

OPERATION REACH CROSS SECTION 7

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.84	1066.94	6839.15
12.13	133.32	6833.10
16.23	91.01	6832.46
20.14	76.45	6832.06
24.07	39.20	6831.06

OPERATION RUNOFF STRUCTURE 8

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.17	331.69	(RUNOFF)
7.95	29.77	(RUNOFF)
9.95	15.67	(RUNOFF)
11.56	21.98	(RUNOFF)
12.56	15.40	(RUNOFF)
15.60	10.64	(RUNOFF)
19.94	8.80	(RUNOFF)
23.86	4.48	(RUNOFF)

TIME(HRS)	FIRST HYDROGRAPH POINT = .00 HOURS				TIME INCREMENT = .10 HOURS				DRAINAGE AREA = .87 SQ.MI.		
5.00	DISCH6	.00	.00	.00	.00	.00	.00	.00	.68	14.69	72.42
6.00	DISCH6	188.18	310.29	327.97	259.74	178.29	127.68	99.93	80.24	65.22	55.05
7.00	DISCH6	49.30	45.54	41.08	36.40	33.01	31.22	30.32	29.87	29.69	29.66
8.00	DISCH6	29.69	28.96	26.29	22.49	19.27	17.45	16.46	15.91	15.61	15.47
9.00	DISCH6	15.41	15.38	15.39	15.41	15.44	15.47	15.51	15.54	15.58	15.61
10.00	DISCH6	15.62	15.21	13.82	11.80	10.14	9.14	8.60	8.29	8.13	8.04
11.00	DISCH6	8.06	8.90	11.80	15.95	19.40	21.46	21.80	19.50	15.73	12.49
12.00	DISCH6	10.56	9.91	10.85	12.63	14.20	15.14	15.28	14.03	12.10	10.45
13.00	DISCH6	9.46	8.92	8.63	8.47	8.38	8.33	8.31	8.30	8.30	8.30
14.00	DISCH6	8.31	8.43	8.85	9.42	9.90	10.19	10.34	10.41	10.42	10.43
15.00	DISCH6	10.43	10.45	10.49	10.55	10.59	10.62	10.64	10.63	10.60	10.58
16.00	DISCH6	10.56	10.45	10.08	9.56	9.12	8.87	8.73	8.66	8.62	8.61
17.00	DISCH6	8.60	8.60	8.60	8.61	8.61	8.62	8.63	8.64	8.64	8.65
18.00	DISCH6	8.66	8.67	8.67	8.68	8.69	8.70	8.70	8.71	8.72	8.73
19.00	DISCH6	8.73	8.74	8.75	8.76	8.76	8.77	8.78	8.79	8.79	8.80
20.00	DISCH6	8.80	8.59	7.75	6.62	5.67	5.11	4.81	4.64	4.54	4.49
21.00	DISCH6	4.46	4.45	4.44	4.43	4.44	4.44	4.44	4.44	4.44	4.44
22.00	DISCH6	4.45	4.45	4.45	4.45	4.45	4.46	4.46	4.46	4.46	4.46
23.00	DISCH6	4.46	4.47	4.47	4.47	4.47	4.47	4.47	4.48	4.48	4.48
24.00	DISCH6	4.47	4.22	3.40	2.24	1.29	.71	.40	.22	.12	.06
25.00	DISCH6	.03	.02	.01	.00						

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ERATION ADDHYD STRUCTURE 8

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.82	1128.33	(NULL)
12.16	143.37	(NULL)
16.09	101.28	(NULL)
19.99	85.16	(NULL)
23.95	43.67	(NULL)

RUNOFF VOLUME ABOVE BASEFLOW = .52 WATERSHED INCHES, 3271.69 CFS-HRS, 270.37 ACRE-FEET; BASEFLOW = .00 CFS

OPERATION REACH CROSS SECTION 8

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
7.08	1052.81	6720.23
12.42	140.09	6719.44
16.31	100.83	6719.40
20.15	85.04	6719.31
24.06	43.63	6719.06

OPERATION RUNOFF STRUCTURE 9

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.21	301.40	(RUNOFF)
9.95	16.04	(RUNOFF)
11.59	21.77	(RUNOFF)
12.58	15.48	(RUNOFF)
15.64	10.95	(RUNOFF)
19.90	9.08	(RUNOFF)
23.95	4.65	(RUNOFF)

ERATION ADDHYD STRUCTURE 9

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
7.06	1104.05	(NULL)
12.49	154.74	(NULL)
16.17	111.21	(NULL)
20.00	94.01	(NULL)
23.96	48.25	(NULL)

RUNOFF VOLUME ABOVE BASEFLOW = .52 WATERSHED INCHES, 3647.48 CFS-HRS, 301.43 ACRE-FEET; BASEFLOW = .00 CFS

OPERATION REACH CROSS SECTION 9

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PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
7.22	1090.97	6564.95
12.64	154.02	6561.83
16.32	111.07	6561.49
20.13	93.96	6561.32
24.07	48.23	6560.68

ERATION RUNOFF STRUCTURE 10

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.15	55.38	(RUNOFF)
7.96	4.79	(RUNOFF)
9.95	2.53	(RUNOFF)
11.55	3.62	(RUNOFF)
12.54	2.50	(RUNOFF)

ERATION ADDHYD STRUCTURE 10

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
7.21	1097.16	(NULL)
12.63	156.43	(NULL)
16.29	112.59	(NULL)
20.07	95.35	(NULL)
23.98	48.93	(NULL)

RUNOFF VOLUME ABOVE BASEFLOW = .53 WATERSHED INCHES, 3707.15 CFS-HRS, 306.36 ACRE-FEET; BASEFLOW = .00 CFS

EXECUTIVE CONTROL OPERATION ENDCMP COMPUTATIONS COMPLETED FOR PASS 1

RECORD ID

EXECUTIVE CONTROL OPERATION COMPUT FROM STRUCTURE 1 TO STRUCTURE 10

RECORD ID 100 YEAR

STARTING TIME = .00 RAIN DEPTH = 4.60 RAIN DURATION = 1.00 RAIN TABLE NO. = 1 ANT. MOIST. COND = 2
ALTERNATE NO. = 1 STORM NO. = 2 MAIN TIME INCREMENT = .10 HOURS

OPERATION RUNOFF STRUCTURE 1

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BLACK SQUIRREL CREEK BASIN - PRESENT CONDITIONS
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JOB 1 PASS 2
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PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.10	307.04	(RUNOFF)
7.95	20.03	(RUNOFF)
9.95	10.48	(RUNOFF)
11.50	15.34	(RUNOFF)
12.50	10.47	(RUNOFF)
15.54	6.99	(RUNOFF)
19.94	5.74	(RUNOFF)
23.86	2.91	(RUNOFF)

RUNOFF VOLUME ABOVE BASEFLOW = 1.27 WATERSHED INCHES, 267.28 CFS-HRS, 22.09 ACRE-FeET; BASEFLOW = .00 CFS

OPERATION REACH CROSS SECTION 1

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.26	236.07	7380.79
10.06	10.43	7379.58
11.67	14.23	7379.61
12.67	9.98	7379.58
15.71	6.97	7379.56
20.05	5.75	7379.55
23.97	2.91	7379.52

ERATION RUNOFF STRUCTURE 2

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.17	550.53	(RUNOFF)
9.95	22.67	(RUNOFF)
11.58	31.00	(RUNOFF)
12.57	21.84	(RUNOFF)
15.61	15.12	(RUNOFF)
19.89	12.40	(RUNOFF)
23.95	6.33	(RUNOFF)

OPERATION ADDHYD STRUCTURE 2

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.20	773.11	(NULL)
9.95	33.04	(NULL)
11.60	44.68	(NULL)
12.59	31.55	(NULL)
15.64	22.09	(NULL)
19.91	18.13	(NULL)
23.95	9.24	(NULL)

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RUNOFF VOLUME ABOVE BASEFLOW = 1.33 WATERSHED INCHES, 860.53 CFS-HRS, 71.11 ACRE-FEET; BASEFLOW = .00 CFS

OPERATION REACH CROSS SECTION 2

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.38	656.06	7241.71
10.06	32.97	7239.66
11.77	41.95	7239.84
12.75	30.34	7239.61
15.82	22.06	7239.44
20.05	18.14	7239.36
24.05	9.22	7239.18

OPERATION RUNOFF STRUCTURE 4

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.16	531.61	(RUNOFF)
9.94	20.98	(RUNOFF)
11.57	29.10	(RUNOFF)
12.56	20.38	(RUNOFF)
15.60	14.01	(RUNOFF)
19.91	11.48	(RUNOFF)
23.86	5.82	(RUNOFF)

OPERATION ADDHYD STRUCTURE 24

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.28	1039.43	(NULL)
9.96	53.93	(NULL)
11.67	67.31	(NULL)
12.65	49.11	(NULL)
15.73	36.02	(NULL)
19.95	29.63	(NULL)
23.87	15.01	(NULL)

RUNOFF VOLUME ABOVE BASEFLOW = 1.35 WATERSHED INCHES, 1416.54 CFS-HRS, 117.06 ACRE-FEET; BASEFLOW = .00 CFS

OPERATION RUNOFF STRUCTURE 3

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PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.23	685.94	(RUNOFF)
9.96	32.32	(RUNOFF)
11.63	41.60	(RUNOFF)
12.62	30.04	(RUNOFF)
15.68	21.55	(RUNOFF)
19.92	17.68	(RUNOFF)
23.86	8.97	(RUNOFF)

RUNOFF VOLUME ABOVE BASEFLOW = 1.37 WATERSHED INCHES, 851.49 CFS-HRS, 70.37 ACRE-FEET; BASEFLOW = .00 CFS

ERATION REACH CROSS SECTION 3

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.48	512.75	7177.03
11.86	36.46	7175.33
12.80	28.55	7175.17
15.99	21.47	7175.03
20.06	17.67	7174.95
23.97	8.96	7174.78

OPERATION RUNOFF STRUCTURE 4

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.20	425.81	(RUNOFF)
9.96	18.09	(RUNOFF)
11.60	24.16	(RUNOFF)
12.59	17.14	(RUNOFF)
15.63	12.04	(RUNOFF)
19.95	9.90	(RUNOFF)
23.95	5.03	(RUNOFF)

ERATION ADDHYD STRUCTURE 44

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.34	795.02	(NULL)
9.95	50.38	(NULL)
11.73	56.71	(NULL)
12.66	44.54	(NULL)
15.87	33.45	(NULL)
19.96	27.55	(NULL)
23.95	13.99	(NULL)

RUNOFF VOLUME ABOVE BASEFLOW = 1.38 WATERSHED INCHES, 1331.40 CFS-HRS, 110.03 ACRE-FEET; BASEFLOW = .00 CFS

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OPERATION ADDHYD STRUCTURE 4

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.30	1825.11	(NULL)
9.96	104.31	(NULL)
11.69	123.72	(NULL)
12.66	93.63	(NULL)
15.79	69.45	(NULL)
19.96	57.18	(NULL)
23.89	28.97	(NULL)

RUNOFF VOLUME ABOVE BASEFLOW = 1.37 WATERSHED INCHES, 2747.94 CFS-HRS, 227.09 ACRE-FEET; BASEFLOW = .00 CFS

*** WARNING REACH 4 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION REACH CROSS SECTION 4

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.43	1782.72	6980.60
10.06	104.27	6973.24
11.82	122.26	6973.42
12.78	93.07	6973.12
15.92	69.44	6972.83
20.06	57.16	6972.69
24.00	28.97	6972.10

OPERATION RUNOFF STRUCTURE 6

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.19	318.03	(RUNOFF)
9.95	13.14	(RUNOFF)
11.59	17.68	(RUNOFF)
12.58	12.50	(RUNOFF)
15.62	8.74	(RUNOFF)
19.88	7.16	(RUNOFF)
23.95	3.65	(RUNOFF)

OPERATION ADDHYD STRUCTURE 26

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PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.40	1972.55	(NULL)
9.97	117.29	(NULL)
11.79	136.24	(NULL)
12.74	104.12	(NULL)
15.90	78.13	(NULL)
19.97	64.25	(NULL)
23.96	32.61	(NULL)

RUNOFF VOLUME ABOVE BASEFLOW = 1.37 WATERSHED INCHES, 3099.19 CFS-HRS, 256.12 ACRE-FEET; BASEFLOW = .00 CFS

ERATION RUNOFF STRUCTURE 5

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.34	1831.61	(RUNOFF)
9.86	107.65	(RUNOFF)
11.71	127.56	(RUNOFF)
12.68	97.28	(RUNOFF)
15.82	71.93	(RUNOFF)
19.89	59.21	(RUNOFF)
23.86	30.07	(RUNOFF)

RUNOFF VOLUME ABOVE BASEFLOW = 1.31 WATERSHED INCHES, 2797.21 CFS-HRS, 231.16 ACRE-FEET; BASEFLOW = .00 CFS

ERATION REACH CROSS SECTION 5

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.54	1629.77	7008.98
11.91	120.32	7002.00
12.84	94.84	7001.74
16.05	71.86	7001.46
20.04	59.17	7001.31
23.97	30.05	7000.72

PERATION RUNOFF STRUCTURE 6

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.22	947.26	(RUNOFF)
9.96	42.52	(RUNOFF)
11.62	55.35	(RUNOFF)
12.61	39.80	(RUNOFF)
15.67	28.28	(RUNOFF)
19.90	23.18	(RUNOFF)
23.86	11.75	(RUNOFF)

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PERATION ADDHYD STRUCTURE 46

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.43	2188.43	(NULL)
11.80	164.51	(NULL)
12.72	130.94	(NULL)
15.95	99.98	(NULL)
19.96	82.37	(NULL)
23.88	41.78	(NULL)

RUNOFF VOLUME ABOVE BASEFLOW = 1.34 WATERSHED INCHES, 3932.29 CFS-HRS, 324.96 ACRE-FEET; BASEFLOW = .00 CFS

PERATION ADDHYD STRUCTURE 6

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.42	4156.63	(NULL)
11.79	300.74	(NULL)
12.73	235.03	(NULL)
15.93	178.10	(NULL)
19.96	146.61	(NULL)
23.91	74.37	(NULL)

RUNOFF VOLUME ABOVE BASEFLOW = 1.36 WATERSHED INCHES, 7031.48 CFS-HRS, 581.08 ACRE-FEET; BASEFLOW = .00 CFS

*** WARNING REACH 6 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION REACH CROSS SECTION 6

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.55	4044.87	6915.95
11.93	297.01	6908.68
12.86	233.87	6908.30
16.06	178.07	6907.88
20.07	146.57	6907.57
24.03	74.36	6906.74

OPERATION RUNOFF STRUCTURE 7

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BLACK SQUIRREL CREEK BASIN - PRESENT CONDITIONS
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PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.17	926.42	(RUNOFF)
9.96	34.89	(RUNOFF)
11.58	47.35	(RUNOFF)
12.57	33.18	(RUNOFF)
15.61	23.03	(RUNOFF)
19.93	18.79	(RUNOFF)
23.86	9.51	(RUNOFF)

OPERATION ADDHYD STRUCTURE 7

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.53	4387.31	(NULL)
11.89	325.94	(NULL)
12.79	260.25	(NULL)
15.99	200.87	(NULL)
19.97	165.29	(NULL)
23.93	83.85	(NULL)

TIME(HRS)	FIRST HYDROGRAPH POINT = .00 HOURS					TIME INCREMENT = .10 HOURS			DRAINAGE AREA = 8.98 SQ.MI.		
5.00	DISCHG	.00	.00	.00	.00	.00	.00	.85	16.47	117.16	394.84
6.00	DISCHG	941.06	1766.00	2708.22	3546.25	4131.75	4376.60	4298.19	3969.00	3503.14	2997.96
7.00	DISCHG	2523.66	2117.80	1783.83	1514.25	1298.55	1126.64	990.09	882.92	800.10	738.06
8.00	DISCHG	692.39	658.12	627.96	596.97	562.01	523.74	483.88	445.70	411.35	382.40
9.00	DISCHG	359.40	341.99	329.27	320.17	313.79	309.42	306.50	304.61	303.45	302.81
10.00	DISCHG	302.51	301.65	298.26	290.83	279.06	263.50	245.66	227.56	210.79	196.38
11.00	DISCHG	184.94	177.67	178.30	188.78	209.83	239.51	273.20	302.48	321.04	325.83
12.00	DISCHG	317.66	300.23	279.98	263.33	253.14	250.62	253.75	258.48	260.21	257.25
13.00	DISCHG	249.05	236.88	222.81	209.02	196.69	186.54	178.68	172.80	168.51	165.45
14.00	DISCHG	163.31	162.06	162.01	163.37	166.20	170.25	175.04	179.94	184.44	188.23
15.00	DISCHG	191.21	193.43	195.09	196.38	197.45	198.39	199.21	199.90	200.41	200.73
16.00	DISCHG	200.87	200.68	199.79	197.83	194.71	190.63	185.99	181.32	177.00	173.33
17.00	DISCHG	170.41	168.19	166.57	165.42	164.63	164.09	163.75	163.54	163.42	163.38
18.00	DISCHG	163.38	163.41	163.47	163.54	163.62	163.71	163.81	163.91	164.02	164.12
19.00	DISCHG	164.23	164.33	164.44	164.54	164.65	164.76	164.86	164.97	165.07	165.18
20.00	DISCHG	165.27	164.93	163.16	159.11	152.69	144.13	134.31	124.34	115.14	107.21
21.00	DISCHG	100.82	95.93	92.28	89.63	87.73	86.39	85.45	84.80	84.35	84.05
22.00	DISCHG	83.85	83.71	83.63	83.58	83.55	83.54	83.55	83.56	83.58	83.60
23.00	DISCHG	83.62	83.64	83.67	83.69	83.72	83.74	83.77	83.79	83.82	83.85
24.00	DISCHG	83.84	83.44	81.51	77.41	70.78	62.07	52.08	41.95	32.54	24.46
25.00	DISCHG	17.95	12.95	9.24	6.54	4.59	3.20	2.23	1.54	1.06	.73
26.00	DISCHG	.49	.33	.22	.14	.09	.05	.03	.01	.00	

RUNOFF VOLUME ABOVE BASEFLOW = 1.38 WATERSHED INCHES, 8000.97 CFS-HRS, 661.20 ACRE-Feet; BASEFLOW = .00 CFS

OPERATION REACH CROSS SECTION 7

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PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.78	3886.92	6845.18
12.12	306.86	6834.86
12.88	259.72	6834.44
16.20	200.35	6833.90
20.11	165.11	6833.48
24.06	83.83	6832.26

OPERATION RUNOFF STRUCTURE 8

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.14	957.72	(RUNOFF)
9.92	32.99	(RUNOFF)
11.56	45.93	(RUNOFF)
12.56	31.95	(RUNOFF)
15.58	21.79	(RUNOFF)
19.90	17.75	(RUNOFF)
23.86	8.98	(RUNOFF)

TIME(HRS)	FIRST HYDROGRAPH POINT = .00 HOURS	TIME INCREMENT = .10 HOURS	DRAINAGE AREA = .87 SQ.MI.
5.00 DISCHG	.00 .00 .00 .00 .00 .00 .43	23.48 135.92 371.64	
6.00 DISCHG	687.51 936.34 906.03 686.95 458.93 319.34 242.50	189.95 151.40 125.69	
7.00 DISCHG	110.85 101.20 90.59 79.87 72.21 68.11 65.99	64.86 64.31 64.12	
8.00 DISCHG	64.05 62.37 56.52 48.29 41.32 37.38 35.20	33.99 33.33 32.98	
9.00 DISCHG	32.81 32.74 32.72 32.72 32.76 32.81 32.85	32.90 32.94 32.99	
10.00 DISCHG	32.97 32.09 29.12 24.87 21.35 19.24 18.08	17.43 17.08 16.89	
11.00 DISCHG	16.91 18.68 24.75 33.41 40.60 44.87 45.53	40.70 32.81 26.05	
12.00 DISCHG	22.01 20.63 22.58 26.25 29.50 31.44 31.71	29.09 25.08 21.64	
13.00 DISCHG	19.58 18.47 17.86 17.51 17.32 17.21 17.16	17.13 17.12 17.13	
14.00 DISCHG	17.14 17.38 18.23 19.40 20.39 20.97 21.27	21.40 21.42 21.41	
15.00 DISCHG	21.42 21.44 21.52 21.62 21.71 21.77 21.78	21.75 21.68 21.63	
16.00 DISCHG	21.59 21.35 20.58 19.51 18.62 18.10 17.81	17.65 17.57 17.53	
17.00 DISCHG	17.51 17.51 17.51 17.51 17.52 17.53 17.54	17.55 17.56 17.57	
18.00 DISCHG	17.57 17.58 17.59 17.60 17.61 17.62 17.63	17.64 17.65 17.66	
19.00 DISCHG	17.67 17.68 17.69 17.69 17.70 17.71 17.72	17.73 17.74 17.75	
20.00 DISCHG	17.74 17.31 15.62 13.34 11.43 10.29 9.68	9.33 9.14 9.03	
21.00 DISCHG	8.97 8.94 8.93 8.92 8.92 8.92 8.92	8.92 8.93 8.93	
22.00 DISCHG	8.93 8.93 8.94 8.94 8.94 8.94 8.94	8.95 8.95 8.95	
23.00 DISCHG	8.95 8.96 8.96 8.96 8.96 8.96 8.97	8.97 8.97 8.97	
24.00 DISCHG	8.94 8.44 6.81 4.49 2.58 1.43 .79	.43 .24 .13	
25.00 DISCHG	.07 .03 .01 .00		

ERATION ADDHYD STRUCTURE 8

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BLACK SQUIRREL CREEK BASIN - PRESENT CONDITIONS
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PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.76	4049.35	(NULL)
12.14	327.75	(NULL)
16.08	221.52	(NULL)
19.97	182.76	(NULL)
23.93	92.75	(NULL)

RUNOFF VOLUME ABOVE BASEFLOW = 1.41 WATERSHED INCHES, 8935.73 CFS-HRS, 738.45 ACRE-FEET; BASEFLOW = .00 CFS

OPERATION REACH CROSS SECTION 8

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.98	3820.52	6721.53
12.36	320.93	6719.74
16.26	220.92	6719.54
20.10	182.61	6719.48
24.06	92.75	6719.36

OPERATION RUNOFF STRUCTURE 9

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.18	892.39	(RUNOFF)
9.95	34.43	(RUNOFF)
11.59	46.20	(RUNOFF)
12.58	32.62	(RUNOFF)
15.62	22.74	(RUNOFF)
19.88	18.56	(RUNOFF)
23.95	9.44	(RUNOFF)

OPERATION ADDHYD STRUCTURE 9

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.96	3954.81	(NULL)
12.42	350.28	(NULL)
16.14	242.71	(NULL)
19.98	201.05	(NULL)
23.96	102.14	(NULL)

RUNOFF VOLUME ABOVE BASEFLOW = 1.42 WATERSHED INCHES, 9893.51 CFS-HRS, 817.60 ACRE-FEET; BASEFLOW = .00 CFS

*** WARNING REACH 9 ATT-KIN COEFF.(C) GREATER THAN 0.667, CONSIDER REDUCING MAIN TIME INCREMENT ***

OPERATION REACH CROSS SECTION 9

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PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
7.09	3932.41	6568.63
12.55	349.53	6563.25
16.26	242.63	6562.50
20.08	201.02	6562.21
24.06	102.13	6561.42

PERATION RUNOFF STRUCTURE 10

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
6.12	161.29	(RUNOFF)
7.95	10.46	(RUNOFF)
9.93	5.38	(RUNOFF)
11.55	7.65	(RUNOFF)
12.54	5.25	(RUNOFF)
19.89	2.90	(RUNOFF)
23.86	1.47	(RUNOFF)

OPERATION ADDHYD STRUCTURE 10

PEAK TIME(HRS)	PEAK DISCHARGE(CFS)	PEAK ELEVATION(FEET)
7.09	3948.24	(NULL)
12.55	354.78	(NULL)
16.24	245.84	(NULL)
20.05	203.83	(NULL)
23.97	103.54	(NULL)

RUNOFF VOLUME ABOVE BASEFLOW = 1.43 WATERSHED INCHES, 10044.85 CFS-HRS, 830.11 ACRE-FEET; BASEFLOW = .00 CFS

EXECUTIVE CONTROL OPERATION ENDCMP COMPUTATIONS COMPLETED FOR PASS 2

RECORD ID

EXECUTIVE CONTROL OPERATION ENDJOB

RECORD ID

SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

SECTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCRM (HR)	PRECIPITATION			RUNOFF AMOUNT (IN)	PEAK DISCHARGE			
						BEGIN (HR)	AMOUNT (IN)	DURATION (HR)		ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)
ALTERNATE	1	STORM	1										
STRUCTURE 1	RUNOFF	.32	1	2	.10	.0	3.00	24.00	.44	---	6.13	85.91	264.3
SECTION 1	REACH	.32	1	2	.10	.0	3.00	24.00	.44	7379.91	6.44	50.94	156.7
STRUCTURE 2	RUNOFF	.68	1	2	.10	.0	3.00	24.00	.48	---	6.21	158.76	233.5
STRUCTURE 2	ADDHYD	1.00	1	2	.10	.0	3.00	24.00	.47	---	6.25	181.51	180.6
SECTION 2	REACH	1.00	1	2	.10	.0	3.00	24.00	.47	7240.46	6.50	140.08	139.4
STRUCTURE 4	RUNOFF	.62	1	2	.10	.0	3.00	24.00	.51	---	6.20	159.13	257.1
STRUCTURE 24	ADDHYD	1.62	1	2	.10	.0	3.00	24.00	.48	---	6.30	240.43	148.0
STRUCTURE 3	RUNOFF	.96	1	2	.10	.0	3.00	24.00	.49	---	6.28	193.55	201.2
SECTION 3	REACH	.96	1	2	.10	.0	3.00	24.00	.49	7176.00	6.69	124.30	129.2
STRUCTURE 4	RUNOFF	.53	1	2	.10	.0	3.00	24.00	.51	---	6.23	125.63	236.6
STRUCTURE 44	ADDHYD	1.49	1	2	.10	.0	3.00	24.00	.50	---	6.56	175.41	117.5
STRUCTURE 4	ADDHYD	3.12	1	2	.10	.0	3.00	24.00	.49	---	6.34	404.51	129.8
SECTION 4	REACH	3.12	1	2	.10	.0	3.00	24.00	.49	6975.60	6.45	400.64	128.5
STRUCTURE 6	RUNOFF	.38	1	2	.10	.0	3.00	24.00	.53	---	6.22	96.63	254.3
STRUCTURE 26	ADDHYD	3.50	1	2	.10	.0	3.00	24.00	.50	---	6.40	466.69	133.5
STRUCTURE 5	RUNOFF	3.31	1	2	.10	.0	3.00	24.00	.46	---	6.39	496.49	150.2
SECTION 5	REACH	3.31	1	2	.10	.0	3.00	24.00	.46	7004.52	6.55	470.53	142.4
STRUCTURE 6	RUNOFF	1.23	1	2	.10	.0	3.00	24.00	.52	---	6.26	278.04	225.3
STRUCTURE 46	ADDHYD	4.54	1	2	.10	.0	3.00	24.00	.48	---	6.45	651.23	143.5
STRUCTURE 6	ADDHYD	8.04	1	2	.10	.0	3.00	24.00	.49	---	6.43	1117.90	139.1
SECTION 6	REACH	8.04	1	2	.10	.0	3.00	24.00	.49	6911.50	6.64	1047.86	130.4
STRUCTURE 7	RUNOFF	.94	1	2	.10	.0	3.00	24.00	.63	---	6.20	313.31	333.7
STRUCTURE 7	ADDHYD	8.98	1	2	.10	.0	3.00	24.00	.50	---	6.60	1153.41	128.5
SECTION 7	REACH	8.98	1	2	.10	.0	3.00	24.00	.50	6839.15	6.84	1066.94	118.9
STRUCTURE 8	RUNOFF	.87	1	2	.10	.0	3.00	24.00	.67	---	6.17	331.69	383.0
STRUCTURE 8	ADDHYD	9.84	1	2	.10	.0	3.00	24.00	.52	---	6.82	1128.33	114.7
SECTION 8	REACH	9.84	1	2	.10	.0	3.00	24.00	.52	6720.23	7.08	1052.81	107.0
STRUCTURE 9	RUNOFF	.93	1	2	.10	.0	3.00	24.00	.63	---	6.21	301.40	325.8
STRUCTURE 9	ADDHYD	10.77	1	2	.10	.0	3.00	24.00	.52	---	7.06	1104.05	102.5
SECTION 9	REACH	10.77	1	2	.10	.0	3.00	24.00	.53	6564.95	7.22	1090.97	101.3
STRUCTURE 10	RUNOFF	.14	1	2	.10	.0	3.00	24.00	.64	---	6.15	55.38	384.6
STRUCTURE 10	ADDHYD	10.91	1	2	.10	.0	3.00	24.00	.53	---	7.21	1097.16	100.6

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BLACK SQUIRREL CREEK BASIN - PRESENT CONDITIONS
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SUMMARY TABLE 1 - SELECTED RESULTS OF STANDARD AND EXECUTIVE CONTROL INSTRUCTIONS IN THE ORDER PERFORMED
(A STAR(*) AFTER THE PEAK DISCHARGE TIME AND RATE (CFS) VALUES INDICATES A FLAT TOP HYDROGRAPH
A QUESTION MARK(?) INDICATES A HYDROGRAPH WITH PEAK AS LAST POINT.)

ACTION/ STRUCTURE ID	STANDARD CONTROL OPERATION	DRAINAGE AREA (SQ MI)	RAIN TABLE #	ANTEC MOIST COND	MAIN TIME INCREM (HR)	PRECIPITATION			RUNOFF AMOUNT (IN)	PEAK DISCHARGE				
						BEGIN (HR)	AMOUNT (IN)	DURATION (HR)		ELEVATION (FT)	TIME (HR)	RATE (CFS)	RATE (CSM)	
ALTERNATE 1 STORM 2														
STRUCTURE 1	RUNOFF	.32	1	2	.10	.0	4.60	24.00	1.27	---	6.10	307.04	944.7	
SECTION 1	REACH	.32	1	2	.10	.0	4.60	24.00	1.27	7380.79	6.26	236.07	726.4	
STRUCTURE 2	RUNOFF	.68	1	2	.10	.0	4.60	24.00	1.35	---	6.17	550.53	809.6	
STRUCTURE 2	ADDHYD	1.00	1	2	.10	.0	4.60	24.00	1.33	---	6.20	773.11	769.3	
SECTION 2	REACH	1.00	1	2	.10	.0	4.60	24.00	1.33	7241.71	6.38	656.06	652.8	
STRUCTURE 4	RUNOFF	.62	1	2	.10	.0	4.60	24.00	1.39	---	6.16	531.61	858.8	
STRUCTURE 24	ADDHYD	1.62	1	2	.10	.0	4.60	24.00	1.35	---	6.28	1039.43	640.0	
STRUCTURE 3	RUNOFF	.96	1	2	.10	.0	4.60	24.00	1.37	---	6.23	685.94	713.0	
SECTION 3	REACH	.96	1	2	.10	.0	4.60	24.00	1.37	7177.03	6.48	512.75	533.0	
STRUCTURE 4	RUNOFF	.53	1	2	.10	.0	4.60	24.00	1.40	---	6.20	425.81	801.9	
STRUCTURE 44	ADDHYD	1.49	1	2	.10	.0	4.60	24.00	1.38	---	6.34	795.02	532.5	
STRUCTURE 4	ADDHYD	3.12	1	2	.10	.0	4.60	24.00	1.37	---	6.30	1825.11	585.5	
SECTION 4	REACH	3.12	1	2	.10	.0	4.60	24.00	1.37	6980.60	6.43	1782.72	571.9	
STRUCTURE 6	RUNOFF	.38	1	2	.10	.0	4.60	24.00	1.43	---	6.19	318.03	836.9	
STRUCTURE 26	ADDHYD	3.50	1	2	.10	.0	4.60	24.00	1.37	---	6.40	1972.55	564.1	
STRUCTURE 5	RUNOFF	3.31	1	2	.10	.0	4.60	24.00	1.31	---	6.34	1831.61	554.2	
SECTION 5	REACH	3.31	1	2	.10	.0	4.60	24.00	1.31	7008.98	6.54	1629.77	493.1	
STRUCTURE 6	RUNOFF	1.23	1	2	.10	.0	4.60	24.00	1.43	---	6.22	947.26	767.6	
STRUCTURE 46	ADDHYD	4.54	1	2	.10	.0	4.60	24.00	1.34	---	6.43	2188.43	482.1	
STRUCTURE 6	ADDHYD	8.04	1	2	.10	.0	4.60	24.00	1.36	---	6.42	4156.63	517.3	
SECTION 6	REACH	8.04	1	2	.10	.0	4.60	24.00	1.36	6915.95	6.55	4044.87	503.3	
STRUCTURE 7	RUNOFF	.94	1	2	.10	.0	4.60	24.00	1.60	---	6.17	926.42	986.6	
STRUCTURE 7	ADDHYD	8.98	1	2	.10	.0	4.60	24.00	1.38	---	6.53	4387.31	488.8	
SECTION 7	REACH	8.98	1	2	.10	.0	4.60	24.00	1.38	6845.18	6.78	3886.92	433.1	
STRUCTURE 8	RUNOFF	.87	1	2	.10	.0	4.60	24.00	1.67	---	6.14	957.72	1105.9	
STRUCTURE 8	ADDHYD	9.84	1	2	.10	.0	4.60	24.00	1.41	---	6.76	4049.35	411.5	
SECTION 8	REACH	9.84	1	2	.10	.0	4.60	24.00	1.41	6721.53	6.98	3820.52	388.2	
STRUCTURE 9	RUNOFF	.93	1	2	.10	.0	4.60	24.00	1.61	---	6.18	892.39	964.7	
STRUCTURE 9	ADDHYD	10.77	1	2	.10	.0	4.60	24.00	1.42	---	6.96	3954.81	367.3	
SECTION 9	REACH	10.77	1	2	.10	.0	4.60	24.00	1.42	6568.63	7.09	3932.41	365.3	
STRUCTURE 10	RUNOFF	.14	1	2	.10	.0	4.60	24.00	1.62	---	6.12	161.29	1120.1	
STRUCTURE 10	ADDHYD	10.91	1	2	.10	.0	4.60	24.00	1.43	---	7.09	3948.24	361.9	

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BLACK SQUIRREL CREEK BASIN - PRESENT CONDITIONS
10 YEAR AND 100 YEAR STORMS

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SUMMARY TABLE 2 - SELECTED MODIFIED ATT-KIN REACH ROUTINGS IN ORDER OF STANDARD EXECUTIVE CONTROL INSTRUCTIONS

(A STAR(*) AFTER VOLUME ABOVE BASE(IN) INDICATES A HYDROGRAPH TRUNCATED AT A VALUE EXCEEDING BASE + 10% OF PEAK
A QUESTION MARK(?) AFTER COEFF.(C) INDICATES PARAMETERS OUTSIDE ACCEPTABLE LIMITS, SEE PREVIOUS WARNINGS)

HYDROGRAPH INFORMATION									ROUTING PARAMETERS							PEAK			
XSEC ID	REACH LENGTH (FT)	INFLOW		OUTFLOW		OUTFLOW+ INTERV.AREA		BASE- FLOW (CFS)	VOLUME ABOVE BASE (IN)	MAIN TIME INCR (HR)	ITER- ATION #	Q AND A EQUATION		LENGTH FACTOR (K#)	PEAK RATIO D/I (#)	S/Q QPEAK (K) (SEC)	ATT- KIN COEFF (C)	TRAVEL TIME	
		PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)	PEAK (CFS)	TIME (HR)					COEFF (X)	POWER (M)					STOR- AGE (HR)	KINE- MATIC (HR)
ALTERNATE 1 STORM 1																			
1	4000	84	6.1	50	6.4	---	---	0	.44	.10	4	3.69	1.03	.240	.594	956	.32	.20	.27
2	5200	179	6.3	140	6.5	---	---	0	.47	.10	1	2.12	1.25	.105	.784	806	.37	.20	.23
3	8600	193	6.3	124	6.7	---	---	0	.49	.10	1	2.15	1.24	.213	.645	1327	.24	.30	.38
4	3300	401	6.3	399	6.5	---	---	0	.49	.10	1	1.99	1.48	.007	.994	203	.94?	.20	.06
5	6700	496	6.4	466	6.6	---	---	0	.46	.10	1	2.07	1.47	.024	.938	387	.64	.20	.11
6	5100	1112	6.4	1042	6.6	---	---	0	.49	.10	1	3.78	1.18	.044	.937	485	.54	.20	.14
7	8600	1153	6.6	1062	6.8	---	---	0	.50	.10	2	5.96	1.14	.060	.921	672	.42	.20	.19
8	7900	1127	6.8	1052	7.1	---	---	0	.52	.10	2	.098	1.77	.027	.933	768	.38	.30	.22
9	5000	1102	7.1	1091	7.2	---	---	0	.52	.10	1	1.59	1.38	.014	.990	382	.64	.10	.11
ALTERNATE 1 STORM 2																			
1	4000	307	6.1	232	6.3	---	---	0	1.27	.10	2	2.42	1.22	.160	.757	571	.48	.20	.16
2	5200	773	6.2	653	6.4	---	---	0	1.33	.10	1	1.61	1.33	.096	.845	518	.52	.20	.15
3	8600	677	6.2	512	6.5	---	---	0	1.37	.10	1	1.62	1.33	.168	.756	889	.34	.30	.26
4	3300	1825	6.3	1772	6.4	---	---	0	1.37	.10	1	1.90	1.29	.030	.971	281	.78?	.10	.08
5	6700	1813	6.3	1616	6.5	---	---	0	1.31	.10	1	2.04	1.28	.076	.891	581	.47	.20	.16
6	5100	4151	6.4	4015	6.6	---	---	0	1.36	.10	1	1.99	1.32	.028	.967	309	.74?	.20	.09
7	8600	4377	6.5	3882	6.8	---	---	0	1.38	.10	2	6.64	1.07	.107	.887	768	.38	.30	.21
8	7900	4033	6.8	3816	7.0	---	---	0	1.41	.10	1	.359	1.51	.040	.946	623	.45	.20	.17
9	5000	3945	7.0	3931	7.1	---	---	0	1.42	.10	1	1.57	1.38	.012	.997	268	.80?	.10	.07

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BLACK SQUIRREL CREEK BASIN - PRESENT CONDITIONS
10 YEAR AND 100 YEAR STORMS

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SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

SECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS.....	
		1	2
STRUCTURE 46	4.54		
ALTERNATE 1		651.23	2188.43
STRUCTURE 44	1.49		
ALTERNATE 1		175.41	795.02
STRUCTURE 26	3.50		
ALTERNATE 1		466.69	1972.55
STRUCTURE 24	1.62		
ALTERNATE 1		240.43	1039.43
STRUCTURE 10	10.91		
ALTERNATE 1		1097.16	3948.24
STRUCTURE 9	10.77		
ALTERNATE 1		1104.05	3954.81
STRUCTURE 8	9.84		
ALTERNATE 1		1128.33	4049.35
STRUCTURE 7	8.98		
ALTERNATE 1		1153.41	4387.31
STRUCTURE 6	8.04		
ALTERNATE 1		1117.90	4156.63
STRUCTURE 5	3.31		
ALTERNATE 1		496.49	1831.61
STRUCTURE 4	3.12		
ALTERNATE 1		404.51	1825.11
STRUCTURE 3	.96		
ALTERNATE 1		193.55	685.94
STRUCTURE 2	1.00		
ALTERNATE 1		181.51	773.11
STRUCTURE 1	.32		
ALTERNATE 1		85.91	307.04

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BLACK SQUIRREL CREEK BASIN - PRESENT CONDITIONS
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SUMMARY TABLE 3 - DISCHARGE (CFS) AT XSECTIONS AND STRUCTURES FOR ALL STORMS AND ALTERNATES

SECTION/ STRUCTURE ID	DRAINAGE AREA (SQ MI)	STORM NUMBERS.....	
		1	2
<u>XSECTION 1</u>	<u>.32</u>		
ALTERNATE 1		50.94	236.07
<u>XSECTION 2</u>	<u>1.00</u>		
ALTERNATE 1		140.08	656.06
<u>XSECTION 3</u>	<u>.96</u>		
ALTERNATE 1		124.30	512.75
<u>XSECTION 4</u>	<u>3.12</u>		
ALTERNATE 1		400.64	1782.72
<u>XSECTION 5</u>	<u>3.31</u>		
ALTERNATE 1		470.53	1629.77
<u>XSECTION 6</u>	<u>8.04</u>		
ALTERNATE 1		1047.86	4044.87
<u>XSECTION 7</u>	<u>8.98</u>		
ALTERNATE 1		1066.94	3886.92
<u>XSECTION 8</u>	<u>9.84</u>		
ALTERNATE 1		1052.81	3820.52
<u>XSECTION 9</u>	<u>10.77</u>		
ALTERNATE 1		1090.97	3932.41

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1*****
* WATER SURFACE PROFILES
* VERSION OF NOVEMBER 1976
* UPDATED MARCH 1982
* RUN DATE 10/01/85   TIME 11:17:49
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* U.S. ARMY CORPS OF ENGINEERS
* THE HYDROLOGIC ENGINEERING CENTER
* 609 SECOND STREET, SUITE D
* DAVIS, CALIFORNIA 95616
* (916) 440-2105 (FTS) 448-2105
*****

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X   X   XXXXXX   XXXX   XXXX
X   X   X       X       X
X   X   X       X       X
XXXXXX   XXXX   X       XXXX   XXXX
X   X   X       X       X
X   X   X       X       X
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HEC2 RELEASE DATED NOV 76 UPDATED MAR 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55

C
T1 BLACK SQUIRREL CREEK MASTER DRAINAGE STUDY URS PROJ #5122
T2 PRESENT CONDITIONS-SUBCRITICAL RUN
T3 PRESENT COND 100-YEAR STORM

J1	ICHECK	INQ	NINV	IDIR	STRT	METRIC	HVINS	Q	WSEL	FQ
	0.	2.	0.	0.	-1.000000	0.00	0.0	0.	6491.000	0.000
J2	NPROP	IPLOT	PRFVS	XSECV	XSECH	PN	ALLDC	IBW	CHNIM	ITRACE
	-1.000	0.000	0.000	0.000	0.000	0.000	-1.000	0.000	0.000	0.000
J3	VARIABLE CODES FOR SUMMARY PRINTOUT									
	38.000	43.000	8.000	55.000	26.000	56.000	4.000	1.000	2.000	3.000
	25.000	0.000	150.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
MC	0.035	0.035	0.025	0.100	0.300	0.000	0.000	0.000	0.000	0.000
OT	1.000	3949.760	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
	THE CONFLUENCE OF BLACK SQUIRREL AND MONUMENT CREEK (DES PT 10)									
X1	10.000	9.000	194.000	206.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	6519.699	142.700	6505.600	178.000	6489.600	194.000	6485.500	194.500	6485.000	200.000
GR	6485.500	205.500	6490.600	206.000	6494.699	265.000	6519.699	282.000	0.000	0.000
X1	11.000	0.000	0.000	0.000	600.000	640.000	620.000	0.000	10.000	0.000
X1	12.000	9.000	194.000	206.000	550.000	450.000	500.000	0.000	0.000	0.000
GR	6540.800	118.000	6515.800	135.000	6511.699	194.000	6506.600	194.500	6506.100	200.000
GR	6506.600	205.500	6510.699	206.000	6526.699	222.000	6540.800	257.300	0.000	0.000
X1	13.000	0.000	0.000	0.000	600.000	600.000	600.000	0.000	9.900	0.000
	RAILROAD CROSSING									
X1	14.000	9.000	194.000	206.000	1040.000	940.000	990.000	0.000	0.000	0.000
GR	6571.699	142.700	6557.600	178.000	6541.600	194.000	6537.500	194.500	6537.000	200.000
GR	6537.500	205.500	6542.600	206.000	6546.699	265.000	6571.699	282.000	0.000	0.000

MC	0.015	0.015	0.015	0.300	0.500	0.000	0.000	0.000	0.000	0.000
X1	214.000	8.000	180.000	219.900	150.000	150.000	150.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	6585.399	6585.399	0.000
GR	6585.399	180.000	6538.800	180.100	6538.800	197.800	6558.800	197.900	6558.800	201.900
GR	6538.800	202.000	6538.800	219.800	6585.399	219.900	0.000	0.000	0.000	0.000
SB	1.250	1.560	3.000	100.000	39.800	4.000	714.200	0.000	6539.300	6538.800
X1	215.000	0.000	0.000	0.000	100.000	100.000	100.000	0.000	0.500	0.000
X2	0.000	0.000	1.000	6559.300	6585.899	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	6585.899	6585.899	0.000
MC	0.035	0.035	0.025	0.300	0.500	0.000	0.000	0.000	0.000	0.000
X1	15.000	9.000	194.000	206.000	150.000	150.000	150.000	0.000	0.000	0.000
GR	6560.600	120.000	6549.800	174.000	6542.899	194.000	6540.500	194.500	6540.000	200.000
GR	6540.500	205.500	6543.000	206.000	6546.899	261.000	6559.600	280.000	0.000	0.000
INTERSTATE 25 CROSSING (DES PT 9)										
X1	16.000	9.000	154.300	245.700	965.000	985.000	975.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	6583.899	6583.899	0.000
GR	6583.899	154.300	6563.000	181.000	6562.899	194.000	6560.100	194.500	6560.000	200.000
GR	6560.100	205.500	6562.899	206.000	6563.000	219.000	6583.899	245.700	0.000	0.000
SB	1.250	1.560	2.600	100.000	38.000	4.000	1026.000	1.280	6565.899	6560.100
DESIGN POINT 9										
X1	17.000	0.000	0.000	0.000	120.000	120.000	120.000	0.000	5.900	0.000
X2	0.000	0.000	1.000	6583.899	6589.899	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	6589.800	6589.800	0.000
X1	18.000	9.000	194.000	206.000	1300.000	1300.000	1300.000	0.000	0.000	0.000
X2	3956.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	6614.199	120.000	6603.399	174.000	6596.500	194.000	6594.100	194.500	6593.600	200.000
GR	6594.100	205.500	6596.600	206.000	6600.500	261.000	6613.199	280.000	0.000	0.000
MC	0.035	0.035	0.025	0.100	0.300	0.000	0.000	0.000	0.000	0.000
X1	19.000	0.000	0.000	0.000	1020.000	980.000	1000.000	0.000	19.700	0.000
X1	20.000	0.000	0.000	0.000	1020.000	980.000	1000.000	0.000	19.700	0.000
PROPOSED NORTH-SOUTH MINOR ARTERIAL CROSSING										
X1	21.000	9.000	194.000	206.000	1375.000	1375.000	1375.000	0.000	0.000	0.000
GR	6654.100	120.000	6641.399	139.000	6637.500	194.000	6635.000	194.500	6634.500	200.000
GR	6635.000	205.500	6637.399	206.000	6644.300	226.000	6651.100	280.000	0.000	0.000
X1	22.000	0.000	0.000	0.000	1000.000	1000.000	1000.000	0.000	25.100	0.000
X1	23.000	0.000	0.000	0.000	1020.000	980.000	1000.000	0.000	25.900	0.000
UPSTREAM OF NORTHGATE BOUNDARY, CHANGE IN FLOW (DES PT 8)										
X1	24.000	6.000	104.000	300.000	3550.000	3550.000	3550.000	0.000	0.000	0.000
X2	4051.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	6716.199	16.000	6714.600	104.000	6711.300	114.000	6710.600	200.000	6711.600	300.000
GR	6716.100	360.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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X1	25.000	0.000	0.000	0.000	1000.000	1000.000	1000.000	0.000	0.200	0.000
X1	26.000	0.000	0.000	0.000	1020.000	980.000	1000.000	0.000	16.300	0.000
X1	27.000	7.000	129.000	245.000	1000.000	1000.000	1000.000	0.000	16.400	0.000
GR	6768.000	90.000	6764.500	129.000	6752.000	194.000	6751.500	200.000	6752.000	206.000
GR	6760.000	245.000	6768.000	360.000	0.000	0.000	0.000	0.000	0.000	0.000
UPSTREAM OF EAST NORTHGATE BOUNDARY										
X1	28.000	9.000	196.000	207.000	980.000	1020.000	1000.000	0.000	0.000	0.000
GR	6811.300	161.100	6776.399	196.000	6773.399	196.500	6772.899	200.000	6780.399	207.000
GR	6784.199	219.000	6784.899	240.000	6791.300	274.200	6811.300	304.000	0.000	0.000
X1	29.000	0.000	0.000	0.000	1010.000	990.000	1000.000	0.000	19.600	0.000
PROPOSED POWERS BOULEVARD CROSSING										
X1	30.000	0.000	0.000	0.000	1000.000	1000.000	1000.000	0.000	18.400	0.000
X1	31.000	0.000	0.000	0.000	1000.000	1000.000	1000.000	0.000	19.100	0.000
X1	32.000	0.000	0.000	0.000	1000.000	1000.000	1000.000	0.000	25.000	0.000
X1	232.000	13.000	192.000	208.000	375.000	375.000	375.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	6889.000	149.900	6864.899	174.000	6864.899	192.000	6864.600	6889.000	6889.000	0.000
GR	6861.899	198.000	6861.899	200.000	6861.899	202.000	6862.600	192.500	6862.600	195.000
GR	6864.899	208.000	6864.899	226.000	6889.000	250.100	0.000	205.000	6864.600	207.500
MC	0.000	0.000	0.000	0.028	0.300	0.500	0.000	0.000	0.000	0.000
X1	332.000	0.000	0.000	0.000	5.000	5.000	5.000	0.000	0.000	0.000
SB	0.000	1.750	2.600	52.000	10.000	0.000	190.000	0.000	6865.399	6861.899
X1	233.000	0.000	0.000	0.000	105.000	105.000	105.000	0.000	0.000	0.000
X2	0.000	0.000	1.000	6879.399	6889.000	0.000	0.000	0.000	0.000	0.000
X3	10.000	0.000	0.000	0.000	0.000	0.000	0.000	6889.000	6889.000	0.000
MC	0.035	0.035	0.035	0.100	0.300	0.000	0.000	0.000	0.000	0.000
STATE HIGHWAY 83 CROSSING, CHANGE IN FLOW (DES PT 7)										
X1	33.000	10.000	196.000	204.000	150.000	150.000	150.000	0.000	0.000	0.000
X2	4389.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	6884.399	143.500	6873.800	174.000	6869.600	189.000	6868.199	196.000	6867.199	196.500
GR	6866.699	200.000	6867.199	203.500	6869.399	204.000	6873.399	214.000	6890.100	223.400
X1	34.000	0.000	0.000	0.000	1000.000	1000.000	1000.000	0.000	19.800	0.000
X1	35.000	0.000	0.000	0.000	990.000	1010.000	1000.000	0.000	18.500	0.000
X1	36.000	0.000	0.000	0.000	1000.000	1000.000	1000.000	0.000	15.000	0.000

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X1	37.000	0.000	0.000	0.000	1000.000	1000.000	1000.000	0.000	12.500	0.000
DESIGN POINT 6										
X1	38.000	0.000	0.000	0.000	600.000	600.000	600.000	0.000	7.500	0.000
X2	2190.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	39.000	9.000	195.000	205.000	1000.000	1000.000	1000.000	0.000	0.000	0.000
GR	6975.800	155.000	6960.800	185.000	6959.600	195.000	6954.100	195.500	6953.600	200.000
GR	6954.100	204.500	6959.600	205.000	6959.800	227.000	6974.800	272.000	0.000	0.000
X1	40.000	0.000	0.000	0.000	1000.000	1000.000	1000.000	0.000	19.100	0.000
X1	41.000	0.000	0.000	0.000	1000.000	1000.000	1000.000	0.000	27.300	0.000
X1	42.000	0.000	0.000	0.000	1000.000	1000.000	1000.000	0.000	36.000	0.000
X1	43.000	0.000	0.000	0.000	980.000	1020.000	1000.000	0.000	24.000	0.000
X1	44.000	0.000	0.000	0.000	1020.000	980.000	1000.000	0.000	27.000	0.000
NEAR RESERVOIR, DESIGN POINT 5										
X1	45.000	0.000	0.000	0.000	980.000	1020.000	1000.000	0.000	33.000	0.000
X2	1832.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
PROPOSED NORTGATE ROAD CROSSING										
X1	50.000	9.000	195.000	205.000	1000.000	1000.000	1000.000	0.000	0.000	0.000
GR	7212.199	155.000	7197.199	185.000	7196.000	195.000	7190.500	195.500	7190.000	200.000
GR	7199.500	204.500	7196.000	205.000	7196.199	227.000	7211.199	272.000	0.000	0.000
X1	51.000	0.000	0.000	0.000	980.000	1020.000	1000.000	0.000	19.300	0.000
X1	52.000	0.000	0.000	0.000	1000.000	1000.000	1000.000	0.000	38.300	0.000
X1	53.000	0.000	0.000	0.000	1020.000	980.000	1000.000	0.000	33.900	0.000
X1	54.000	7.000	185.000	215.000	990.000	1010.000	1000.000	0.000	0.000	0.000
GR	7308.000	148.000	7303.000	185.000	7300.500	186.000	7300.000	200.000	7300.500	214.000
GR	7303.000	215.000	7316.000	270.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	55.000	0.000	0.000	0.000	1000.000	1000.000	1000.000	0.000	23.300	0.000
X1	56.000	0.000	0.000	0.000	1000.000	1000.000	1000.000	0.000	20.800	0.000
BLACK SQUIRREL CREEK PARALLELS MILAIN ROAD TO DIVIDE										
X1	57.000	0.000	0.000	0.000	1000.000	1000.000	1000.000	0.000	35.900	0.000
X1	58.000	0.000	0.000	0.000	1000.000	1000.000	1000.000	0.000	30.900	0.000

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X1	59.000	0.000	0.000	0.000	1000.000	1000.000	1000.000	0.000	39.800	0.000
X1	60.000	0.000	0.000	0.000	1000.000	1000.000	1000.000	0.000	59.300	0.000
NORTH TRIBUTARY OF BLACK SQUIRREL CREEK										
X1	-38.000	10.000	196.000	204.000	1000.000	1000.000	1000.000	0.000	0.000	0.000
X2	1970.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	6957.699	143.500	6947.100	174.000	6942.899	189.000	6941.500	196.000	6940.500	196.500
GR	6940.000	200.000	6940.500	203.500	6942.699	204.000	6946.699	214.000	6963.399	223.400
X1	70.000	9.000	195.000	205.000	650.000	650.000	650.000	0.000	0.000	0.000
X2	1825.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	6976.000	155.000	6961.000	185.000	6959.800	195.000	6954.300	195.500	6953.800	200.000
GR	6954.300	204.500	6959.800	205.000	6960.000	227.000	6975.000	272.000	0.000	0.000
X1	71.000	0.000	0.000	0.000	1000.000	1000.000	1000.000	0.000	17.600	0.000
DESIGN POINT 4										
X1	72.000	0.000	0.000	0.000	980.000	1020.000	1000.000	0.000	28.600	0.000
X1	80.000	0.000	0.000	0.000	1000.000	1000.000	1000.000	0.000	40.000	0.000
X1	81.000	7.000	185.000	215.000	1000.000	1000.000	1000.000	0.000	0.000	0.000
GR	7085.600	148.000	7080.600	185.000	7078.100	186.000	7077.600	200.000	7078.100	214.000
GR	7080.600	215.000	7093.000	270.000	0.000	0.000	0.000	0.000	0.000	0.000
PROPOSED NORTHGATE ROAD CROSSING										
X1	82.000	0.000	0.000	0.000	990.000	1010.000	1000.000	0.000	65.000	0.000
X1	83.000	6.000	175.000	225.000	1020.000	980.000	1000.000	0.000	0.000	0.000
GR	7180.500	146.000	7175.399	175.000	7174.399	200.000	7173.399	225.000	7179.399	231.000
GR	7183.399	254.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	84.000	0.000	0.000	0.000	1000.000	1000.000	1000.000	0.000	31.400	0.000
STATE HIGHWAY 83 CROSSING, DESIGN POINT 2										
X1	85.000	0.000	0.000	0.000	1000.000	1000.000	1000.000	0.000	34.200	0.000
X2	773.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	86.000	0.000	0.000	0.000	990.000	1010.000	1000.000	0.000	28.000	0.000
X1	87.000	0.000	0.000	0.000	1010.000	990.000	1000.000	0.000	34.800	0.000
X1	88.000	0.000	0.000	0.000	1000.000	1000.000	1000.000	0.000	27.700	0.000
STATE HIGHWAY 83 CROSSING, DESIGN POINT 1										
X1	89.000	0.000	0.000	0.000	1000.000	1000.000	1000.000	0.000	49.500	0.000
X2	307.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

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X1	90.000	0.000	0.000	0.000	1000.000	1000.000	1000.000	0.000	34.100	0.000
X1	91.000	0.000	0.000	0.000	1000.000	1000.000	1000.000	0.000	38.600	0.000
X1	92.000	0.000	0.000	0.000	1000.000	1000.000	1000.000	0.000	38.600	0.000
SOUTHERN TRIBUTARY CONFLUENCE WITH THE NORTHERN TRIBUTARY										
X1	-72.000	9.000	195.000	205.000	980.000	1020.000	1000.000	0.000	0.000	0.000
X2	1825.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
GR	7022.199	155.000	7007.199	185.000	7006.000	195.000	7000.500	195.500	7000.000	200.000
GR	7000.500	204.500	7006.000	205.000	7006.199	227.000	7021.199	272.000	0.000	0.000
X1	100.000	9.000	195.000	205.000	1010.000	990.000	1000.000	0.000	0.000	0.000
GR	7058.699	155.000	7043.699	185.000	7042.500	195.000	7037.000	195.500	7036.500	200.000
GR	7037.000	204.500	7042.500	205.000	7042.699	227.000	7057.699	272.000	0.000	0.000
X1	101.000	7.000	185.000	215.000	1000.000	1000.000	1000.000	0.000	0.000	0.000
GR	7094.399	148.000	7089.399	185.000	7086.899	186.000	7086.500	200.000	7086.899	214.000
GR	7089.399	215.000	7102.399	270.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	102.000	0.000	0.000	0.000	1000.000	1000.000	1000.000	0.000	14.900	0.000
ABOVE PROPOSED NORHTGATE ROAD CROSSING										
X1	103.000	0.000	0.000	0.000	1000.000	1000.000	1000.000	0.000	26.300	0.000
X1	104.000	6.000	175.000	225.000	1020.000	980.000	1000.000	0.000	0.000	0.000
GR	7181.699	146.000	7176.600	175.000	7175.600	200.000	7174.600	225.000	7180.600	231.000
GR	7184.600	254.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
NEAR SHAMROCK RANCH										
X1	105.000	0.000	0.000	0.000	980.000	1020.000	1000.000	0.000	32.500	0.000
X1	106.000	0.000	0.000	0.000	1000.000	1000.000	1000.000	0.000	28.500	0.000
X1	107.000	0.000	0.000	0.000	1010.000	990.000	1000.000	0.000	30.800	0.000
DESIGN POINT 3										
X1	108.000	0.000	0.000	0.000	990.000	1010.000	1000.000	0.000	30.800	0.000
X2	686.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
X1	109.000	0.000	0.000	0.000	1010.000	990.000	1000.000	0.000	27.800	0.000
X1	110.000	0.000	0.000	0.000	1000.000	1000.000	1000.000	0.000	24.900	0.000
X1	111.000	0.000	0.000	0.000	1000.000	1000.000	1000.000	0.000	20.600	0.000
X1	112.000	0.000	0.000	0.000	1000.000	1000.000	1000.000	0.000	28.600	0.000

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HEC2 RELEASE DATED NOV 76 UPDATED MAR 1982
ERROR CORR - 01,02,03,04,05
MODIFICATION - 50,51,52,53,54,55

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

PRESENT COND 100-YEAR
SUMMARY PRINTOUT

	SECNO	Q	DEPTH	VLOB	VCH	VROB	TOPWID	CWSEL	CRWS	EG	AREA
*	10.000	3949.76	11.60	5.62	15.11	7.64	79.30	6496.60	6496.60	6498.84	392.82
*	11.000	3949.76	11.68	5.54	14.85	7.57	79.43	6506.68	6506.68	6508.84	398.94
*	12.000	3949.76	11.65	7.60	14.96	5.58	79.37	6517.75	6517.75	6519.94	396.23
*	13.000	3949.76	11.66	7.59	14.91	5.56	79.40	6527.66	6527.66	6529.84	397.55
*	14.000	3949.76	11.66	5.57	14.94	7.59	79.39	6548.66	6548.66	6550.84	396.93
	214.000	3949.76	10.96	0.00	10.12	0.00	35.66	6549.76	6546.04	6551.35	390.22
	215.000	3949.76	11.32	0.00	9.81	0.00	35.66	6550.61	0.00	6552.11	402.61
	15.000	3949.76	11.82	4.40	9.14	5.49	104.42	6551.82	6549.19	6552.53	652.23
*	16.000	3949.76	8.67	0.00	13.53	0.00	52.49	6568.67	6568.67	6571.51	291.85
	17.000	3949.76	5.09	0.00	32.80	0.00	43.35	6570.99	0.00	6587.69	120.44
	18.000	3956.00	9.96	5.69	13.09	7.24	92.33	6603.56	6602.78	6605.04	469.13
*	19.000	3956.00	9.18	6.54	15.57	8.18	88.63	6622.48	6622.48	6624.62	399.69
*	20.000	3956.00	9.26	6.43	15.28	8.07	88.98	6642.26	6642.26	6644.31	406.72
	21.000	3956.00	12.23	5.17	8.51	3.98	114.33	6646.73	6643.71	6647.34	705.69
*	22.000	3956.00	9.18	8.18	15.56	6.54	88.64	6668.78	6668.78	6670.92	399.77
*	23.000	3956.00	9.26	8.07	15.27	6.43	88.99	6694.76	6694.76	6696.81	406.88
	24.000	4051.00	3.11	0.00	7.78	3.03	221.59	6713.71	6713.45	6714.63	538.90

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	SECNO	Q	DEPTH	VLOB	VCH	VROB	TOPWID	CWSEL	CRIWS	EG	AREA	PAGE 31
*	25.000	4051.00	2.85	0.00	8.71	3.31	217.14	6721.65	6721.65	6722.80	479.35	
*	26.000	4051.00	2.86	0.00	8.67	3.30	217.30	6737.96	6737.96	6739.10	481.47	
*	27.000	4051.00	7.67	0.00	11.64	0.00	84.23	6775.57	6775.57	6777.67	347.92	
*	28.000	4051.00	15.32	7.31	16.22	7.13	73.54	6788.21	6788.21	6790.86	387.53	
*	29.000	4051.00	15.40	7.21	16.00	7.06	74.05	6807.89	6807.89	6810.46	393.44	
*	30.000	4051.00	15.36	7.25	16.09	7.09	73.83	6826.26	6826.26	6828.86	390.99	
*	31.000	4051.00	15.38	7.23	16.05	7.08	73.93	6845.38	6845.38	6847.96	392.07	
*	32.000	4051.00	15.37	7.24	16.06	7.08	73.89	6870.37	6870.37	6872.96	391.63	
*	232.000	4051.00	13.38	0.00	20.19	0.00	16.00	6875.28	6875.28	6881.61	200.63	
*	332.000	4051.00	19.66	2.93	4.93	2.93	85.31	6881.56	6870.31	6881.78	1178.16	
*	233.000	4051.00	29.30	1.67	2.90	1.67	100.20	6891.20	0.00	6891.27	2089.32	
*	33.000	4389.00	24.44	3.37	3.90	3.14	79.90	6891.13	6877.56	6891.32	1292.31	
*	34.000	4389.00	10.86	13.27	16.02	12.14	53.16	6897.36	6897.36	6900.39	319.09	
*	35.000	4389.00	10.88	13.22	15.95	12.10	53.24	6915.88	6915.88	6918.89	320.33	
*	36.000	4389.00	10.88	13.22	15.96	12.10	53.23	6930.88	6930.88	6933.89	320.18	
*	37.000	4389.00	10.88	13.22	15.96	12.10	53.23	6943.38	6943.38	6946.39	320.28	
*	38.000	2190.00	9.42	8.53	10.47	7.49	48.22	6949.42	6948.26	6950.71	246.37	
*	39.000	2190.00	9.41	8.36	12.24	9.40	56.06	6963.01	6963.01	6964.82	209.95	
*	40.000	2190.00	9.42	8.34	12.20	9.38	56.11	6982.12	6982.12	6983.92	210.55	
*	41.000	2190.00	9.42	8.34	12.20	9.38	56.11	7009.42	7009.42	7011.22	210.55	
*	42.000	2190.00	9.42	8.34	12.20	9.38	56.11	7045.42	7045.42	7047.22	210.55	
*	43.000	2190.00	9.42	8.34	12.20	9.38	56.11	7069.42	7069.42	7071.22	210.55	
*	44.000	2190.00	9.42	8.34	12.20	9.38	56.11	7096.42	7096.42	7098.22	210.55	
*	45.000	1832.00	9.08	7.39	11.35	8.39	54.41	7129.08	7129.08	7130.62	191.72	
*	50.000	1832.00	8.94	7.56	11.87	8.61	53.72	7198.94	7198.94	7200.63	184.22	
*	51.000	1832.00	9.01	7.47	11.60	8.50	54.06	7218.31	7218.31	7219.92	187.96	

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	SECNO	Q	DEPTH	VLOB	VCH	VROB	TOPWID	CWSEL	CRWS	EG	AREA
*	52.000	1832.00	8.98	7.51	11.71	8.55	53.92	7256.58	7256.58	7258.22	186.37
*	53.000	1832.00	9.00	7.49	11.67	8.53	53.98	7290.49	7290.49	7292.12	187.06
*	54.000	1832.00	5.41	4.54	11.07	4.48	58.01	7305.41	7305.41	7307.18	185.47
*	55.000	1832.00	5.42	4.53	11.04	4.48	58.12	7328.72	7328.72	7330.48	186.04
*	56.000	1832.00	5.41	4.54	11.05	4.48	58.08	7349.51	7349.51	7351.28	185.81
*	57.000	1832.00	5.42	4.53	11.04	4.48	58.11	7385.42	7385.42	7387.18	185.98
*	58.000	1832.00	5.41	4.54	11.06	4.48	58.03	7416.31	7416.31	7418.08	185.59
*	59.000	1832.00	5.41	4.54	11.06	4.48	58.03	7456.11	7456.11	7457.88	185.59
*	60.000	1832.00	5.41	4.54	11.06	4.48	58.03	7515.41	7515.41	7517.18	185.59
*	68.000	1970.00	9.42	7.67	9.42	6.73	48.22	6949.42	0.00	6950.46	246.35
*	70.000	1825.00	9.08	7.37	11.31	8.36	54.39	6962.88	6962.88	6964.41	191.55
*	71.000	1825.00	8.93	7.54	11.86	8.60	53.66	6980.33	6980.33	6982.02	183.64
*	72.000	1825.00	9.01	7.45	11.58	8.48	54.03	7009.00	7009.00	7010.61	187.64
*	80.000	1825.00	8.97	7.50	11.73	8.54	53.83	7048.97	7048.97	7050.61	185.53
*	81.000	1825.00	5.41	4.51	11.00	4.47	58.53	7083.01	7083.01	7084.76	186.18
*	82.000	1825.00	5.41	4.52	11.02	4.47	58.48	7148.01	7148.01	7149.76	185.95
*	83.000	1825.00	4.35	4.96	10.08	6.00	67.74	7177.75	7177.75	7179.25	192.96
*	84.000	1825.00	4.36	4.95	10.05	5.98	67.80	7209.16	7209.16	7210.65	193.56
*	85.000	773.00	2.90	2.97	7.82	5.19	58.03	7241.90	7241.90	7242.83	101.64
*	86.000	773.00	2.90	2.97	7.82	5.18	58.04	7269.90	7269.90	7270.83	101.76
*	87.000	773.00	2.91	2.97	7.80	5.16	58.08	7304.71	7304.71	7305.63	102.04
*	88.000	773.00	2.91	2.97	7.81	5.17	58.06	7332.40	7332.40	7333.33	101.87
*	89.000	307.00	2.01	0.00	5.90	4.67	52.06	7381.00	7381.00	7381.54	52.46
*	90.000	307.00	2.02	0.06	5.82	4.59	52.15	7415.12	7415.12	7415.64	53.17
*	91.000	307.00	2.01	0.00	5.87	4.64	52.10	7453.71	7453.71	7454.24	52.76
*	92.000	307.00	2.01	0.00	5.90	4.67	52.06	7492.30	7492.30	7492.84	52.46

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SECNO	Q	DEPTH	VLOB	VCH	VROB	TOPWID	CWSEL	CRWS	EG	AREA
-72.000	1825.00	8.97	7.49	11.71	8.53	53.87	7008.97	0.00	7010.61	185.85
* 100.000	1825.00	8.99	7.48	11.65	8.51	53.94	7045.49	7045.49	7047.11	186.64
* 101.000	1825.00	5.34	4.57	11.00	4.51	58.45	7091.84	7091.84	7093.59	186.27
* 102.000	1825.00	5.35	4.56	11.00	4.51	58.49	7106.75	7106.75	7108.49	186.44
* 103.000	1825.00	5.34	4.57	11.02	4.51	58.41	7133.04	7133.04	7134.79	186.04
* 104.000	1825.00	4.36	4.96	10.07	6.00	67.75	7178.96	7178.96	7180.45	193.03
* 105.000	1825.00	4.35	4.97	10.09	6.00	67.72	7211.45	7211.45	7212.95	192.77
* 106.000	1825.00	4.36	4.96	10.07	5.99	67.76	7239.96	7239.96	7241.45	193.17
* 107.000	1825.00	4.36	4.96	10.07	5.99	67.76	7270.76	7270.76	7272.25	193.17
* 108.000	686.00	2.75	2.68	7.55	5.10	57.04	7299.95	7299.95	7300.82	93.10
* 109.000	686.00	2.77	2.68	7.48	5.05	57.15	7327.77	7327.77	7328.62	94.00
* 110.000	686.00	2.76	2.68	7.52	5.08	57.09	7352.66	7352.66	7353.52	93.49
* 111.000	686.00	2.75	2.68	7.55	5.10	57.05	7373.25	7373.25	7374.12	93.16
* 112.000	686.00	2.77	2.68	7.47	5.04	57.17	7401.87	7401.87	7402.72	94.16
* 113.000	686.00	2.75	2.68	7.55	5.10	57.05	7429.45	7429.45	7430.32	93.16
* 114.000	686.00	2.77	2.68	7.47	5.04	57.17	7461.87	7461.87	7462.72	94.16
* 115.000	686.00	2.75	2.68	7.55	5.10	57.05	7501.85	7501.85	7502.72	93.16
* 116.000	686.00	2.77	2.68	7.47	5.04	57.17	7541.87	7541.87	7542.72	94.16
* 117.000	686.00	2.75	2.68	7.55	5.10	57.05	7581.85	7581.85	7582.72	93.16