

DISTANCES

SECTION	DOWNSTREAM		UPSTREAM		DRAINAGE AREA, SQ MI	'N' VALUE BY SEGMENTS					
	CHANNEL	VALLEY	CHANNEL	VALLEY		NO. 1	NO. 2	NO. 3	NO. 4	NO. 5	NO. 6
BI	1600.	1600.	4150.	4150.	12.91	0.090	0.065	0.090			

KD VALUES

ELEVATION	KD VALUES			END AREA SQ. FT.	ACRES FLOODED BY DEPTH INCREMENT			
	CHANNEL	VALLEY	TOTAL		TOTAL	0-1 FOOT	1-3 FEET	3+ FEET
295.00	85603.6	3829725.0	3915328.5	37101.17	109.30	0.64	1.28	107.37
294.00	78345.6	3456041.5	3534387.0	34810.45	108.66	0.64	1.28	106.73
293.00	71399.9	3101705.0	3173104.5	32535.74	108.02	0.64	1.28	106.09
292.00	64678.1	2761196.5	2825874.5	30272.24	107.37	0.64	1.28	105.44
291.00	58182.3	2434637.0	2492819.0	28019.95	106.73	0.64	1.28	104.80
290.00	51993.7	2127003.0	2178996.5	25782.61	106.09	0.64	1.28	104.16
289.00	46099.1	1837444.2	1883543.2	23559.15	105.44	0.64	1.28	103.51
288.00	40488.0	1565310.5	1605798.5	21348.76	104.80	0.64	1.28	102.87
287.00	35161.5	1310680.2	1345841.7	19151.18	104.16	0.64	1.28	102.23
286.00	30126.8	1074028.7	1104155.5	16966.42	103.51	0.64	1.28	101.58
285.00	25392.0	855894.3	881286.3	14794.47	102.87	0.64	1.28	100.94
284.00	21014.0	659928.0	680942.0	12637.19	102.23	0.64	1.28	100.30
283.00	16973.9	485135.9	502109.8	10493.26	101.58	0.64	4.77	96.16
282.00	13286.3	332750.3	346036.6	8362.68	100.94	0.64	10.79	89.50
281.00	9969.0	204417.5	214386.5	6245.44	100.30	4.13	45.71	50.45
280.00	7069.7	107905.5	114975.3	4174.12	96.16	6.66	89.50	0.00
279.00	5123.2	39399.5	44522.8	2197.39	89.50	39.05	50.45	0.00
278.00	3785.3	6592.0	10377.3	645.69	50.45	50.45	0.00	0.00
277.00	2408.1	0.0	2408.1	57.63	0.00	0.00	0.00	0.00
276.00	1354.2	0.0	1354.2	38.74	0.00	0.00	0.00	0.00
275.00	562.2	0.0	562.2	21.54	0.00	0.00	0.00	0.00
274.00	96.3	0.0	96.3	6.50	0.00	0.00	0.00	0.00
273.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00

CFS	VELOCITY	ELEV.	CFS	VELOCITY	ELEV.	CFS	VELOCITY	ELEV.
118.55	0.74	277.25	413.40	0.51	278.11	835.53	0.52	278.68
1332.59	0.55	279.10	1907.91	0.57	279.57	2546.88	0.59	280.06
3408.33	0.60	280.71	4185.87	0.60	281.29	5015.50	0.61	281.90
5894.40	0.61	282.54	6822.32	0.61	283.24	7790.78	0.62	283.96
8799.52	0.61	284.73						

USE 6 FT/SEC

DISTANCES						NO. VALUE BY SEGMENTS					
SECTION	DOWNSTREAM		UPSTREAM		DRAINAGE	NO. 1	NO. 2	NO. 3	NO. 4	NO. 5	NO. 6
	CHANNEL	VALLEY	CHANNEL	VALLEY	AREA, SQ MI						
B2	4150.	4150.	750.	750.	11.82	0.090	0.065	0.090			

KD VALUES				END AREA	ACRES FLOODED BY DEPTH INCREMENT			
ELEVATION	CHANNEL	VALLEY	TOTAL	SQ. FT.	TOTAL	0-1 FOOT	1-3 FEET	3+ FEET
297.50	58430.8	495243.8	553674.7	6845.43	43.07	1.34	2.68	39.04
296.50	53067.8	426567.7	479635.5	6193.58	41.73	1.34	2.68	37.70
295.50	47806.3	360378.0	408184.3	5551.01	40.39	1.34	2.68	36.36
294.50	42751.5	299209.2	341960.8	4927.19	39.04	1.34	2.68	35.01
293.50	37914.2	243207.3	281121.5	4322.74	37.70	1.34	2.63	33.72
292.50	33356.4	193659.1	227015.5	3742.49	36.36	1.34	2.44	32.57
291.50	29029.5	149299.9	178329.4	3181.60	35.01	1.29	2.21	31.50
290.50	24924.1	109777.8	134701.9	2638.75	33.72	1.14	2.14	30.43
289.50	21082.1	75774.4	96856.5	2114.95	32.57	1.07	2.33	29.17
288.50	17502.4	47326.9	64829.4	1607.63	31.50	1.07	12.72	17.71
287.50	14195.0	24879.4	39074.5	1116.39	30.43	1.26	29.17	0.00
286.50	11153.9	8652.6	19806.6	640.56	29.17	11.45	17.71	0.00
285.50	8475.9	720.0	9195.9	222.06	17.71	17.71	0.00	0.00
284.50	6269.4	0.0	6269.4	116.28	0.00	0.00	0.00	0.00
284.00	5329.8	0.0	5329.8	103.91	0.00	0.00	0.00	0.00
283.00	3624.2	0.0	3624.2	79.87	0.00	0.00	0.00	0.00
282.00	2167.7	0.0	2167.7	56.73	0.00	0.00	0.00	0.00
281.00	1010.0	0.0	1010.0	34.55	0.00	0.00	0.00	0.00
280.00	227.1	0.0	227.1	13.33	0.00	0.00	0.00	0.00
279.10	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00

CFS	VELOCITY	ELEV.	CFS	VELOCITY	ELEV.	CFS	VELOCITY	ELEV.
111.48	1.55	282.65	388.76	1.75	285.50	785.72	1.32	286.40
1253.15	1.40	287.03	1794.18	1.55	287.57	2395.06	1.67	288.14
3205.16	1.84	288.76	3936.35	1.96	289.29	4716.53	2.07	289.80
5543.03	2.17	290.32	6415.63	2.27	290.85	7326.36	2.35	291.37
8274.98	2.42	291.91						

USE 1.5 FT/SEC

DISTANCES

SECTION	DOWNSTREAM		UPSTREAM		DRAINAGE AREA, SQ MI
	CHANNEL	VALLEY	CHANNEL	VALLEY	
B2A	750.	750.	50.	50.	11.82

N VALUE BY SEGMENTS

NO. 1	NO. 2	NO. 3	NO. 4	NO. 5	NO. 6
0.090	0.065	0.090			

KD VALUES

ELEVATION	KD VALUES			END AREA SQ. FT.
	CHANNEL	VALLEY	TOTAL	
297.50	57775.2	495921.3	553696.6	6841.95
296.50	52351.4	425890.1	478241.6	6185.06
295.50	47107.9	360244.2	407352.1	5544.50
294.50	42075.4	299612.8	341688.3	4922.70
293.50	37265.2	244148.2	281413.5	4320.27
292.50	32682.2	193849.8	225532.0	3737.19
291.50	28329.1	148676.3	177005.4	3173.28
290.50	24248.3	109403.0	133651.3	2631.21
289.50	20425.5	75357.5	95783.1	2107.74
288.50	16869.9	46689.2	63759.1	1600.42
287.50	13589.1	24336.0	37925.1	1109.02
286.50	10613.1	8799.5	19412.6	635.43
285.50	8074.2	2089.9	10164.2	306.25
284.50	5804.5	0.0	5804.5	110.28
284.00	4889.1	0.0	4889.1	97.94
283.00	3227.3	0.0	3227.3	73.92
282.00	1825.9	0.0	1825.9	50.83
281.00	760.1	0.0	760.1	28.78
280.00	97.3	0.0	97.3	7.77
279.60	0.0	0.0	0.0	0.00

ACRES FLOODED BY DEPTH INCREMENT

TOTAL	ACRES FLOODED BY DEPTH INCREMENT		
	0-1 FOOT	1-3 FEET	3+ FEET
43.07	1.34	2.68	39.04
41.73	1.34	2.68	37.70
40.39	1.34	2.68	36.36
39.04	1.34	2.68	35.01
37.70	1.34	2.66	33.69
36.36	1.34	2.44	32.57
35.01	1.32	2.19	31.50
33.69	1.11	2.14	30.43
32.57	1.07	2.38	29.12
31.50	1.07	11.65	18.78
30.43	1.31	29.12	0.00
29.12	10.33	18.78	0.00
18.78	18.78	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00
0.00	0.00	0.00	0.00

CFS	VELOCITY	ELEV.	CFS	VELOCITY	ELEV.	CFS	VELOCITY	ELEV.
111.48	1.36	283.33	388.76	0.84	286.12	785.72	0.89	287.01
1253.15	1.04	287.70	1794.18	1.19	288.29	2395.06	1.32	288.90
3205.16	1.49	289.58	3936.35	1.61	290.13	4716.53	1.73	290.67
5543.03	1.84	291.20	6415.63	1.93	291.74	7326.36	2.03	292.27
8274.98	2.11	292.81						

USE 1.0 FT/SEC

BRIDGE SECTION B-140

COEFFICIENTS
OPENING=0.800, DRIFICE=0.600, ROADWAY=0.800

-----DISTANCES-----

ELEVATION	OPENING END AREA	Q CRIT.	DOWNSTREAM		UPSTREAM	
			CHANNEL 50.0	VALLEY 50.0	CHANNEL 50.0	VALLEY 50.0 ROADWAY
279.88	0.00	0.00			298.70	0.00
280.38	10.00	40.10			299.20	337.22
280.88	20.00	113.44			299.70	1907.62
281.38	30.00	208.41			300.00	3676.13
281.88	40.00	320.86				
282.38	50.00	448.42				
282.88	60.00	589.47				
283.38	70.00	742.82				
283.88	80.00	907.55				
284.38	90.00	1082.93				
284.88	100.00	1268.34				
285.38	110.00	1463.27				
285.88	120.00	1667.28				
286.38	130.00	1879.97				
286.88	140.00	2101.01				
287.38	150.00	2330.09				
287.88	160.00	2566.95				
288.38	170.00	2811.32				
288.88	180.00	3062.99				
289.38	190.00	3321.75				
289.88	200.00	3587.42				

THE HEAD-LOSS IS REFLECTED BETWEEN THE EXIT AND APPROACH SECTIONS. A RATING CURVE IS NOT DEVELOPED SEPERATELY FOR THE BRIDGE. NORMAL PROFILES ARE COMPUTED WHEN THE BRIDGE DOES NOT CONTROL THE FLOW.

DISTANCES					DRAINAGE AREA, SQ MI	'N' VALUE BY SEGMENTS					
SECTION	DCWNSTREAM CHANNEL	VALLEY	UPSTREAM CHANNEL	VALLEY		NO. 1	NO. 2	NO. 3	NO. 4	NO. 5	NO. 6
B3A	50.	50.	50.	50.	11.82	0.090	0.065	0.090			

ELEVATION	KD VALUES			END AREA SQ. FT.	ACRES FLOODED BY DEPTH INCREMENT			
	CHANNEL	VALLEY	TOTAL		TOTAL	0-1 FOOT	1-3 FEET	3+ FEET
318.70	431425.1	4323475.0	4754900.0	37097.50	74.26	0.39	0.78	73.08
317.70	408491.8	4045251.5	4453743.0	35523.89	73.87	0.39	0.78	72.68
316.70	385558.4	3767028.5	4152586.5	33950.29	73.47	0.39	0.78	72.29
315.70	362934.4	3493852.5	3856786.5	32381.30	73.08	0.39	0.78	71.89
314.70	341031.9	3232450.0	3573481.5	30823.07	72.68	0.39	0.78	71.50
313.70	319629.3	2979165.5	3298794.5	29272.11	72.29	0.39	0.78	71.10
312.70	298726.6	2733998.5	3032725.0	27728.43	71.89	0.39	0.78	70.71
311.70	278541.0	2500438.0	2778978.5	26194.94	71.50	0.39	0.80	70.30
310.70	258662.5	2271852.5	2530515.0	24665.83	71.10	0.39	0.99	69.71
309.70	239730.4	2058557.7	2298288.0	23149.81	70.71	0.41	1.16	69.13
308.70	221005.4	1848814.0	2069819.2	21636.90	70.30	0.58	1.18	68.53
307.70	203198.8	1655734.0	1858932.7	20138.96	69.71	0.58	1.18	67.94
306.70	185886.3	1470672.0	1656558.2	18650.75	69.13	0.59	1.28	67.25
305.70	169067.7	1293628.5	1462696.7	17172.28	68.53	0.59	1.62	66.32
304.70	153165.5	1131314.7	1284480.2	15711.34	67.94	0.69	2.08	65.16
303.70	137680.7	976183.6	1113864.5	14259.02	67.25	0.92	3.06	63.26
302.70	122932.3	833990.1	956922.3	12822.24	66.32	1.15	5.30	59.85
301.70	108898.7	704364.8	813263.5	11410.66	65.16	1.90	8.16	55.09
300.70	95468.2	586675.5	682143.6	10029.95	63.26	3.40	10.61	49.24
299.70	82729.9	484265.5	566995.5	8696.06	59.85	4.76	12.23	42.86
298.70	70917.9	398932.2	469850.1	7468.17	55.09	5.85	9.08	40.16
297.70	59747.0	325583.7	385330.7	6352.85	49.24	6.38	10.38	32.48
296.70	49219.5	262956.9	312176.4	5348.36	42.86	2.70	11.37	28.78
295.70	39637.2	206032.7	245670.0	4434.06	40.16	7.67	5.06	27.42
294.70	30976.8	162433.2	193410.0	3645.75	32.48	3.69	2.32	26.45
293.70	23181.7	124223.3	147405.0	2958.14	28.78	1.36	2.84	24.57
292.70	16302.0	90923.1	107225.1	2320.35	27.42	0.96	6.13	20.31
291.70	10365.9	62979.6	73345.6	1701.75	26.45	1.87	9.47	15.10
290.70	5623.1	40969.0	46592.2	1113.66	24.57	4.26	11.98	8.33
289.70	2168.2	21859.8	24028.1	588.49	20.31	5.21	15.10	0.00
288.70	325.1	5795.2	6120.3	170.68	15.10	6.77	8.33	0.00
287.70	0.0	-3634.3	-3634.3	-79.33	8.33	8.33	0.00	0.00
286.70	0.0	-6382.8	-6382.8	-176.67	0.00	0.00	0.00	0.00
286.00	0.0	-5165.7	-5165.7	-153.95	0.00	0.00	0.00	0.00
285.00	0.0	-3567.4	-3567.4	-121.50	0.00	0.00	0.00	0.00
284.00	0.0	-2196.2	-2196.2	-89.07	0.00	0.00	0.00	0.00
283.00	0.0	-1094.6	-1094.6	-56.67	0.00	0.00	0.00	0.00
282.00	0.0	-374.8	-374.8	-25.90	0.00	0.00	0.00	0.00
281.00	0.0	-64.2	-64.2	-6.73	0.00	0.00	0.00	0.00
280.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00

CFS	VELOCITY	ELEV.	CFS	VELOCITY	ELEV.	CFS	VELOCITY	ELEV.
111.48	0.47	288.91*	388.76	1.56	288.95*	785.72	2.04	289.00*
1253.15	4.21	289.07*	1794.18	4.49	289.29	2395.06	4.13	289.68
3205.16	3.77	290.22	3936.35	3.55	290.69	4716.52	3.39	291.18
5543.03	3.30	291.66	6415.63	3.22	292.17	7326.36	3.20	292.65

DISTANCES					DRAINAGE AREA, SQ MI	'N' VALUE BY SEGMENTS					
SECTION	DOWNSTREAM		UPSTREAM			NO. 1	NO. 2	NO. 3	NO. 4	NO. 5	NO. 6
B3	CHANNEL	VALLEY	CHANNEL	VALLEY	11.82	0.090	0.065	0.090			

ELEVATION	KC VALUES			END AREA SQ. FT.	ACRES FLOODED BY DEPTH INCREMENT			
	CHANNEL	VALLEY	TOTAL		TOTAL	0-1 FOOT	1-3 FEET	3+ FEET
318.70	266818.0	4852944.0	5119761.0	37432.57	75.72	0.39	0.78	74.54
317.70	254092.9	4536671.0	4790763.0	35854.93	75.33	0.39	0.78	74.15
316.70	241476.9	4224429.0	4465905.0	34280.69	74.93	0.39	0.78	73.75
315.70	229115.3	3921588.5	4150703.5	32714.36	74.54	0.39	0.78	73.36
314.70	216991.2	3627524.5	3844515.5	31155.31	74.15	0.39	0.78	72.96
313.70	205104.6	3342236.5	3547341.0	29603.55	73.75	0.39	0.78	72.57
312.70	193557.2	3069496.0	3263053.0	28061.98	73.36	0.39	0.79	72.17
311.70	182155.1	2802132.0	2984287.0	26524.77	72.96	0.39	0.85	71.71
310.70	171198.7	2551294.5	2722493.0	25000.66	72.57	0.40	0.98	71.18
309.70	160339.6	2304175.5	2464515.0	23479.42	72.17	0.45	1.11	70.59
308.70	149910.9	2073999.0	2223910.0	21970.83	71.71	0.52	1.18	70.00
307.70	139712.3	1853483.5	1993195.7	20471.21	71.18	0.59	1.18	69.40
306.70	129743.8	1642629.2	1772373.0	18980.57	70.59	0.59	1.18	68.81
305.70	120199.3	1447523.0	1567722.2	17507.45	70.00	0.59	1.58	67.82
304.70	110847.0	1259593.2	1370440.2	16042.13	69.40	0.59	2.36	66.44
303.70	101832.9	1084323.5	1186156.2	14590.44	68.81	0.99	3.24	64.57
302.70	93144.2	924250.7	1017394.8	13156.46	67.82	1.37	5.43	61.00
301.70	84728.8	776763.3	861492.1	11741.59	66.44	1.87	9.55	55.01
300.70	76625.3	643442.0	720067.2	10353.65	64.57	3.56	13.69	47.31
299.70	68934.4	533088.5	602022.8	9040.43	61.00	5.98	10.72	44.29
298.70	61525.7	441511.1	503036.8	7803.75	55.01	7.70	6.46	40.85
297.70	54398.5	366281.0	420679.5	6654.77	47.31	3.02	10.01	34.27
296.70	47679.1	292150.6	339829.7	5680.84	44.29	3.44	11.00	29.84
295.70	41348.7	228503.3	269852.1	4771.18	40.85	6.57	5.39	28.88
294.70	35375.1	183636.2	219011.3	3982.19	34.27	4.42	1.92	27.92
293.70	29768.6	142748.4	172517.0	3289.58	29.84	0.96	2.84	26.04
292.70	24528.5	100419.8	124948.3	2651.22	28.88	0.96	6.13	21.78
291.70	19726.8	65106.4	84833.2	2034.00	27.92	1.87	9.81	16.22
290.70	15354.6	37314.9	52669.5	1445.91	26.04	4.26	13.37	8.40
289.70	11434.1	18140.1	29574.3	920.74	21.78	5.55	16.22	0.00
288.70	8032.1	6134.4	14166.6	489.53	16.22	7.82	8.40	0.00
287.70	5566.6	1641.0	7207.6	233.51	8.40	8.40	0.00	0.00
286.70	3595.2	0.0	3595.2	81.59	0.00	0.00	0.00	0.00
286.00	2591.5	0.0	2591.5	63.76	0.00	0.00	0.00	0.00
285.00	1455.6	0.0	1455.6	41.56	0.00	0.00	0.00	0.00
284.00	676.2	0.0	676.2	23.73	0.00	0.00	0.00	0.00
283.00	227.3	0.0	227.3	10.59	0.00	0.00	0.00	0.00
282.00	38.9	0.0	38.9	2.75	0.00	0.00	0.00	0.00
281.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00

CFS	VELOCITY	ELEV.	CFS	VELOCITY	ELEV.	CFS	VELOCITY	ELEV.
111.48	0.19	288.92	388.76	0.64	289.01	785.72	1.14	289.19
1253.15	1.57	289.43	1794.18	1.92	289.73	2395.06	2.16	290.08
3205.16	2.33	290.57	3936.35	2.43	291.01	4716.53	2.50	291.45
5543.03	2.56	291.91	6415.63	2.61	292.39	7326.36	2.66	292.85
8274.98	2.70	293.35						

USE U.S. FT/SEC

SECTION	DISTANCES		DRAINAGE		'N' VALUE BY SEGMENTS						
	DOWNSTREAM CHANNEL	VALLEY	UPSTREAM CHANNEL	VALLEY	AREA, SQ MI	NO. 1	NO. 2	NO. 3	NO. 4	NO. 5	NO. 6
B4	1200.	1200.	400.	400.	11.53	0.100	0.065	0.100			

ELEVATION	KD VALUES			END AREA SQ. FT.	ACRES FLOODED BY DEPTH INCREMENT			
	CHANNEL	VALLEY	TOTAL		TOTAL	0-1 FOOT	1-3 FEET	3+ FEET
309.00	124170.5	1237727.0	1361897.5	15578.67	22.13	0.47	0.95	20.70
308.00	113944.5	1098218.2	1212162.7	14387.57	21.65	0.47	0.95	20.22
307.00	104023.0	965539.8	1069563.0	13217.70	21.17	0.47	1.06	19.63
306.00	94408.5	839693.8	934102.3	12069.05	20.70	0.47	1.38	18.94
305.00	85210.7	722963.7	808174.5	10948.71	20.22	0.58	1.77	17.86
304.00	76441.8	615972.3	692414.2	9857.50	19.63	0.79	1.51	17.32
303.00	67985.3	517141.5	585126.8	8797.79	18.84	0.97	0.89	16.97
302.00	59934.3	428441.7	488376.0	7785.56	17.86	0.53	0.70	16.62
301.00	52274.0	345908.4	398182.3	6817.87	17.32	0.35	0.74	16.23
300.00	45118.1	271671.9	316790.0	5874.10	16.97	0.35	0.88	15.73
299.00	38380.7	205162.4	243543.1	4948.29	16.62	0.38	0.94	15.28
298.00	32046.7	146306.2	178352.9	4039.76	16.23	0.49	1.10	14.62
297.00	26194.5	96954.5	123149.0	3157.69	15.73	0.44	1.81	13.47
296.00	20825.8	56657.5	77483.4	2298.83	15.28	0.66	14.62	0.00
295.00	15963.6	26229.1	42192.8	1467.69	14.62	1.15	13.47	0.00
294.00	11667.8	6262.8	17930.6	676.02	13.47	13.47	0.00	0.00
293.00	8599.8	17.4	8617.2	158.39	0.00	0.00	0.00	0.00
292.00	6179.2	0.0	6179.2	119.02	0.00	0.00	0.00	0.00
291.00	4134.4	0.0	4134.4	88.98	0.00	0.00	0.00	0.00
290.00	2525.0	0.0	2525.0	62.50	0.00	0.00	0.00	0.00
289.00	1301.5	0.0	1301.5	39.37	0.00	0.00	0.00	0.00
288.00	482.5	0.0	482.5	19.93	0.00	0.00	0.00	0.00
287.00	51.1	0.0	51.1	4.48	0.00	0.00	0.00	0.00
286.60	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00

CFS	VELOCITY	ELEV.	CFS	VELOCITY	ELEV.	CFS	VELOCITY	ELEV.
109.56	1.51	290.39	382.05	2.87	292.39	772.16	1.77	293.61
1231.52	1.64	294.09	1763.22	1.65	294.51	2353.73	1.75	294.85
3149.84	1.86	295.27	3868.41	1.93	295.64	4635.13	2.04	295.96
5447.37	2.12	296.31	6304.91	2.19	296.67	7199.92	2.28	297.00
8132.16	2.34	297.35						

0.00 1.00 2.00 3.00 4.00 5.00 6.00 7.00 8.00 9.00 10.00

-----DISTANCES-----					DRAINAGE AREA, SQ MI	'N' VALUE BY SEGMENTS					
SECTION	DOWNSTREAM		UPSTREAM			NO. 1	NO. 2	NO. 3	NO. 4	NO. 5	NO. 6
B5	CHANNEL	VALLEY	CHANNEL	VALLEY	11.47	0.110	0.065	0.110			
	400.	400.	2200.	2200.							

ELEVATION	-----KD VALUES-----			END AREA SQ. FT.	ACRES FLOODED BY DEPTH INCREMENT			
	CHANNEL	VALLEY	TOTAL		TOTAL	0-1 FOOT	1-3 FEET	3+ FEET
318.20	180819.7	2278332.0	2459151.5	23212.26	34.81	0.52	1.04	33.24
317.20	170754.0	2113895.0	2284649.0	22029.76	34.29	0.52	1.18	32.58
316.20	160887.3	1954760.0	2115647.5	20861.96	33.76	0.52	1.49	31.75
315.20	151153.1	1799158.7	1950311.7	19703.96	33.24	0.66	1.91	30.67
314.20	141804.5	1655198.2	1797002.7	18574.89	32.58	0.83	2.16	29.59
313.20	132613.4	1517287.7	1649901.0	17465.66	31.75	1.08	2.15	28.51
312.20	123658.6	1388452.0	1512110.5	16386.16	30.67	1.08	2.11	27.47
311.20	115025.9	1268066.5	1383092.2	15353.06	29.59	1.07	2.07	26.43
310.20	106550.9	1151488.0	1258038.7	14342.31	28.51	1.04	2.06	25.40
309.20	98384.9	1041690.1	1140075.0	13374.57	27.47	1.03	2.05	24.37
308.20	90514.0	938695.5	1029209.5	12445.54	26.43	1.02	1.54	23.86
307.20	82868.0	841041.1	923909.1	11545.51	25.40	1.02	0.92	23.39
306.20	75448.8	748846.3	824295.1	10674.46	24.37	0.51	0.89	22.96
305.20	68417.4	660823.2	729240.6	9841.42	23.86	0.46	0.85	22.53
304.20	61607.8	576459.0	638066.7	9019.87	23.39	0.43	0.80	22.15
303.20	55086.4	497074.3	552160.7	8212.93	22.96	0.42	0.74	21.79
302.20	48847.7	422724.8	471572.6	7419.78	22.53	0.38	0.71	21.43
301.20	42897.7	353273.8	396171.5	6640.02	22.15	0.35	0.71	21.08
300.20	37319.8	290143.5	327463.3	5874.82	21.79	0.35	0.68	20.75
299.20	32023.7	231864.0	263887.7	5120.18	21.43	0.35	0.63	20.44
298.20	27062.8	179333.3	206396.1	4377.78	21.08	0.32	0.62	20.13
297.20	22442.2	132567.8	155010.0	3646.78	20.75	0.31	0.92	19.51
296.20	18174.9	91837.9	110012.9	2926.43	20.44	0.31	3.03	17.09
295.20	14245.7	56974.7	71220.5	2215.74	20.13	0.61	5.74	13.77
294.20	10757.3	30253.8	41011.2	1519.04	19.51	2.42	17.09	0.00
293.20	7664.0	12187.8	19851.9	868.76	17.09	3.32	13.77	0.00
292.20	4964.0	1687.2	6651.3	312.70	13.77	13.77	0.00	0.00
291.20	3022.2	0.0	3022.2	72.95	0.00	0.00	0.00	0.00
291.00	2699.0	0.0	2699.0	67.50	0.00	0.00	0.00	0.00
290.00	1338.3	0.0	1338.3	42.00	0.00	0.00	0.00	0.00
289.00	422.7	0.0	422.7	19.55	0.00	0.00	0.00	0.00
288.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00

CFS	VELOCITY	ELEV.	CFS	VELOCITY	ELEV.	CFS	VELOCITY	ELEV.
109.16	1.60	291.02	380.65	0.59	292.83	769.34	0.59	293.87
1227.02	0.73	294.41	1756.77	0.88	294.87	2345.12	1.03	295.28
3138.33	1.20	295.76	3854.27	1.32	296.17	4618.18	1.45	296.54
5427.46	1.57	296.93	6281.87	1.68	297.31	7113.60	1.79	297.67
8102.44	1.89	298.05						

USE 7 FT/SEC

-----DISTANCES-----					DRAINAGE AREA, SQ MI	*N* VALUE BY SEGMENTS					
SECTION	DOWNSTREAM CHANNEL	VALLEY	UPSTREAM CHANNEL	VALLEY		NO. 1	NO. 2	NO. 3	NO. 4	NO. 5	NO. 6
B6	2200.	2200.	1700.	1700.	10.98	0.110	0.065	0.110			

ELEVATION	-----KD VALUES-----			END AREA SQ. FT.	ACRES FLOODED BY DEPTH INCREMENT			
	CHANNEL	VALLEY	TOTAL		TOTAL	0-1 FOOT	1-3 FEET	3+ FEET
316.50	246336.9	1385048.0	1631384.7	18803.05	54.60	1.18	2.37	51.04
315.50	229870.0	1249767.7	1479637.7	17552.47	53.41	1.18	2.37	49.85
314.50	213759.5	1119809.0	1333568.2	16321.77	52.23	1.18	2.37	48.67
313.50	197886.4	993398.1	1191284.5	15104.33	51.04	1.18	2.37	47.48
312.50	182789.4	878270.8	1061060.2	13929.28	49.85	1.18	2.37	46.29
311.50	167990.7	767356.1	935346.7	12770.13	48.67	1.18	2.49	44.98
310.50	153639.5	662760.2	816399.7	11634.83	47.48	1.18	2.67	43.61
309.50	140002.6	567980.6	707983.2	10536.63	46.29	1.31	2.64	42.34
308.50	126805.8	480173.6	606979.5	9463.16	44.98	1.36	2.55	41.06
307.50	114053.5	398800.2	512853.6	8414.33	43.61	1.27	2.63	39.70
306.50	101905.1	324569.6	426474.6	7398.18	42.34	1.27	2.83	38.23
305.50	90334.6	257577.8	347912.5	6411.66	41.06	1.36	3.10	36.59
304.50	79321.5	197789.7	277111.3	5453.64	39.70	1.47	3.57	34.66
303.50	68867.9	145262.1	214130.0	4526.03	38.23	1.63	3.71	32.88
302.50	58988.2	100112.9	159101.1	3632.21	36.59	1.93	7.12	27.53
301.50	49698.1	62490.9	112189.1	2775.55	34.66	1.77	10.21	22.66
300.50	41109.9	33360.3	74470.2	1963.71	32.88	5.34	27.53	0.00
299.50	33186.0	13859.5	47045.6	1237.57	27.53	4.87	22.66	0.00
298.50	25955.6	2389.7	28345.4	620.80	22.66	22.66	0.00	0.00
297.50	19453.8	386.0	19839.8	342.08	0.00	0.00	0.00	0.00
297.00	17055.1	148.1	17203.3	287.59	0.00	0.00	0.00	0.00
296.00	12648.2	0.6	12648.9	217.68	0.00	0.00	0.00	0.00
295.00	8946.4	0.0	8946.4	170.00	0.00	0.00	0.00	0.00
294.00	5900.8	0.0	5900.8	126.86	0.00	0.00	0.00	0.00
293.00	3462.3	0.0	3462.3	87.86	0.00	0.00	0.00	0.00
292.00	1660.8	0.0	1660.8	53.25	0.00	0.00	0.00	0.00
291.00	592.2	0.0	592.2	25.26	0.00	0.00	0.00	0.00
290.00	79.6	0.0	79.6	6.17	0.00	0.00	0.00	0.00
289.50	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00

CFS	VELOCITY	ELEV.	CFS	VELOCITY	ELEV.	CFS	VELOCITY	ELEV.
105.86	1.19	293.03	369.13	1.92	295.46	746.06	2.34	297.29
1189.90	1.98	298.42	1703.62	1.76	299.06	2274.17	1.69	299.64
3043.38	1.71	300.24	3737.67	1.75	300.70	4478.47	1.81	301.12
5263.26	1.86	301.55	6091.82	1.93	301.94	6956.58	1.99	302.33
7857.31	2.05	302.73						

SECTION	DISTANCES				DRAINAGE AREA, SQ MI	*N* VALUE BY SEGMENTS					
	CHANNEL	VALLEY	CHANNEL	VALLEY		NO. 1	NO. 2	NO. 3	NO. 4	NO. 5	NO. 6
B7	1700.	1700.	2000.	2000.	10.44	0.110	0.065	0.110			

ELEVATION	KD VALUES			END AREA SQ. FT.	ACRES FLOODED BY DEPTH INCREMENT			
	CHANNEL	VALLEY	TOTAL		TOTAL	0-1 FOOT	1-3 FEET	3+ FEET
309.00	29296.7	105421.5	134718.3	2541.71	14.53	1.02	1.19	12.31
308.00	25449.2	85133.8	110583.0	2190.04	13.51	0.62	1.14	11.75
307.00	21839.9	65684.1	87524.0	1856.35	12.89	0.57	1.23	11.08
306.00	18433.0	48200.9	66634.0	1535.10	12.31	0.56	1.68	10.07
305.00	15267.5	33222.2	48489.8	1227.72	11.75	0.67	2.13	8.94
304.00	12345.9	20882.2	33228.1	933.90	11.08	1.00	3.91	6.15
303.00	9678.7	11509.8	21188.5	660.42	10.07	1.12	8.94	0.00
302.00	7259.3	4691.2	11950.6	410.67	8.94	2.78	6.15	0.00
301.00	5492.7	1075.7	6568.4	204.73	6.15	6.15	0.00	0.00
300.00	4310.6	0.0	4310.6	85.28	0.00	0.00	0.00	0.00
299.00	3108.4	0.0	3108.4	67.72	0.00	0.00	0.00	0.00
298.00	2046.1	0.0	2046.1	50.71	0.00	0.00	0.00	0.00
297.00	1137.7	0.0	1137.7	34.24	0.00	0.00	0.00	0.00
296.00	436.6	0.0	436.6	18.34	0.00	0.00	0.00	0.00
295.00	26.2	0.0	26.2	3.00	0.00	0.00	0.00	0.00
294.70	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00

CFS	VELOCITY	ELEV.	CFS	VELOCITY	ELEV.	CFS	VELOCITY	ELEV.
102.15	2.11	297.86	356.20	1.86	300.88	719.93	1.58	302.18
1148.22	1.68	303.07	1643.95	1.85	303.84	2194.51	2.01	304.53
2936.78	2.22	305.30	3606.74	2.39	305.91	4321.59	2.55	306.49
5078.89	2.70	307.05	5878.43	2.86	307.60	6712.90	2.99	308.14
7582.08	3.11	308.69						

SECTION 68	DISTANCES				DRAINAGE AREA, SQ MI 1.34	'N' VALUE BY SEGMENTS					
	DOWNSTREAM CHANNEL 2000.	VALLEY 2000.	UPSTREAM CHANNEL 150.	VALLEY 150.		NO. 1 0.130	NO. 2 0.070	NO. 3 0.130	NO. 4	NO. 5	NO. 6

ELEVATION	K0 VALUES				END AREA SQ. FT.	ACRES FLOODED BY DEPTH INCREMENT			
	CHANNEL	VALLEY	TOTAL			TOTAL	0-1 FOOT	1-3 FEET	3+ FEET
324.70	100869.4	324276.8	425146.2	6423.01	13.77	0.60	1.20	11.96	
323.70	93581.9	288824.3	382406.3	5904.33	13.17	0.60	1.20	11.36	
322.70	86294.4	253371.9	339666.3	5385.65	12.56	0.60	1.20	10.75	
321.70	79283.3	221109.2	300392.5	4893.51	11.95	0.60	1.20	10.15	
320.70	72478.1	191113.1	263591.3	4420.80	11.36	0.60	1.20	9.55	
319.70	65878.1	163320.9	229199.1	3967.31	10.75	0.60	1.20	8.94	
318.70	59629.3	139026.5	198655.8	3545.83	10.15	0.60	1.20	8.34	
317.70	53597.2	116723.5	170320.7	3143.57	9.55	0.60	1.20	7.73	
316.70	47778.7	96332.2	144111.0	2760.07	8.94	0.60	1.17	7.16	
315.70	42236.7	78277.8	120514.6	2400.35	8.34	0.60	1.05	6.68	
314.70	37023.6	62776.9	99800.6	2068.08	7.73	0.57	0.92	6.24	
313.70	32082.3	49049.6	81132.0	1757.57	7.16	0.48	0.87	5.80	
312.70	27420.1	36748.0	64168.2	1465.70	6.65	0.43	0.87	5.37	
311.70	23032.7	25890.4	48923.2	1189.89	6.24	0.43	0.87	4.93	
310.70	18973.0	16928.6	35901.6	931.60	5.80	0.43	2.03	3.33	
309.70	15235.5	9757.1	24992.6	689.85	5.37	0.43	4.93	0.00	
308.70	11834.8	4430.2	16265.0	464.63	4.93	1.59	3.33	0.00	
307.70	8860.2	1371.4	10231.7	274.78	3.33	3.33	0.00	0.00	
306.70	6213.1	0.5	6213.7	123.10	0.00	0.00	0.00	0.00	
306.00	4921.2	0.0	4921.2	103.27	0.00	0.00	0.00	0.00	
305.00	3315.2	0.0	3315.2	77.52	0.00	0.00	0.00	0.00	
304.00	2050.5	0.0	2050.5	54.82	0.00	0.00	0.00	0.00	
303.00	1082.8	0.0	1082.8	34.94	0.00	0.00	0.00	0.00	
302.00	411.5	0.0	411.5	12.00	0.00	0.00	0.00	0.00	
301.00	61.2	0.0	61.2	4.69	0.00	0.00	0.00	0.00	
300.10	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	

CFS	VELOCITY	ELEV.	CFS	VELOCITY	ELEV.	CFS	VELOCITY	ELEV.
20.30	1.06	302.07	70.79	1.38	303.82	143.08	1.71	305.23
228.20	2.00	306.38	326.73	1.70	307.15	436.15	1.47	307.84
583.68	1.39	308.49	716.83	1.35	308.99	858.91	1.35	309.45
1009.42	1.36	309.92	1168.33	1.37	310.37	1334.18	1.38	310.82
1506.93	1.40	311.27						

WSP-REVISED 12/71

BRIAR CREEK

PAGE 104

BRIDGE SECTION B9

COEFFICIENTS
OPENING=0.800, ORIFICE=0.600, ROADWAY=0.800

-----DISTANCES-----
DOWNSTREAM UPSTREAM
CHANNEL VALLEY CHANNEL VALLEY
150.0 150.0 150.0 150.0

ELEVATION	OPENING		Q CRIT.	ROADWAY	
	END AREA			ELEVATION	Q IN CFS
303.70	0.00		0.00	310.30	0.00
304.20	4.00		16.04	310.80	159.07
304.70	8.00		45.37	311.30	743.99
305.20	12.00		83.36	311.80	1594.61
305.70	16.00		128.34	312.30	2805.79
306.20	20.00		179.37	312.80	4422.27
306.70	24.00		235.78	313.30	6493.35
307.20	28.00		297.12	313.80	8850.13
307.70	32.00		363.02	314.30	11474.12
308.20	36.00		433.17	314.80	14480.54
308.70	40.00		507.33	315.30	17634.53
309.20	44.00		585.31	315.80	20931.24
309.70	48.00		666.91	316.30	24517.64
310.20	52.00		751.99	316.80	28193.29
310.50	54.39		804.64	317.30	31967.45
				317.80	35891.84
				318.30	39971.85
				318.80	44249.91
				319.30	48726.25
				319.80	53401.25
				320.30	58275.39
				320.80	63349.28
				321.30	68623.67
				321.80	74099.31
				322.30	79777.01
				322.80	85657.71
				323.30	91742.42
				323.80	98032.03
				324.00	100605.65

THE HEAD-LOSS IS REFLECTED BETWEEN THE EXIT AND APPROACH SECTIONS. A RATING CURVE IS NOT DEVELOPED SEPERATELY FOR THE BRIDGE. NORMAL PROFILES ARE COMPUTED WHEN THE BRIDGE DOES NOT CONTROL THE FLOW.

SECTION	DISTANCES				DRAINAGE AREA, SQ MI	N ^o VALUE BY SEGMENTS					
	CHANNEL	VALLEY	CHANNEL	VALLEY		NO. 1	NO. 2	NO. 3	NO. 4	NO. 5	NO. 6
010	150.	150.	1.	1.	1.34	0.130	0.070	0.130			

ELEVATION	KD VALUES			END AREA SQ. FT.	ACRES FLOODED BY DEPTH INCREMENT			
	CHANNEL	VALLEY	TOTAL		TOTAL	0-1 FOOT	1-3 FEET	3+ FEET
321.80	56686.6	265828.0	322514.6	5211.42	1.50	0.05	0.11	1.34
320.80	51164.2	234232.0	285396.3	4764.81	1.45	0.05	0.11	1.28
319.80	45758.4	203749.4	249507.8	4325.91	1.39	0.05	0.11	1.22
318.80	40559.5	175207.2	215766.8	3900.54	1.34	0.05	0.10	1.18
317.80	35602.9	148865.1	184468.1	3490.75	1.28	0.05	0.08	1.14
316.80	30926.3	124950.2	155876.5	3098.48	1.22	0.04	0.07	1.10
315.80	26539.2	102745.2	129284.5	2722.68	1.18	0.03	0.07	1.07
314.80	22398.2	81997.0	104395.3	2357.25	1.14	0.03	0.09	1.01
313.80	18550.8	63285.1	81836.0	2002.89	1.10	0.03	0.11	0.95
312.80	14999.8	46735.8	61735.7	1659.06	1.07	0.05	0.12	0.89
311.80	11758.3	32829.5	44587.8	1328.35	1.01	0.06	0.13	0.82
310.80	8817.9	21187.2	30005.1	1013.14	0.95	0.06	0.17	0.72
309.80	6244.7	11975.5	18220.2	717.02	0.89	0.07	0.82	0.00
308.80	4056.3	5291.8	9348.2	440.39	0.82	0.10	0.72	0.00
307.80	2234.6	1109.6	3344.3	186.88	0.72	0.72	0.00	0.00
306.80	973.7	0.0	973.7	36.60	0.00	0.00	0.00	0.00
306.00	585.6	0.0	585.6	21.43	0.00	0.00	0.00	0.00
305.00	223.6	0.0	223.6	10.44	0.00	0.00	0.00	0.00
304.00	20.5	0.0	20.5	2.12	0.00	0.00	0.00	0.00
303.50	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00

CFS	VELOCITY	ELEV.	CFS	VELOCITY	ELEV.	CFS	VELOCITY	ELEV.
20.30	2.07	304.93	70.79	2.43	306.45	143.08	1.59	307.18
228.20	1.22	307.80	326.73	1.11	308.24	436.15	1.08	308.66
583.68	1.07	309.18	716.83	1.09	309.58	858.91	1.11	309.99
1009.42	1.12	310.41	1168.33	1.14	310.82	1334.18	1.16	311.23
1506.93	1.17	311.66						

END BRIAR CREEK