
Appendix F

HEC RAS Model Results

Newtonbrook Creek

HEC-RAS Reach ID	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Vel Chnl	Shear Chan	Power Chan
			(m ³ /s)	(m)	(m)	(m/s)	(N/m ²)	(N/m s)
Milne Creek	4206.78	Regional	89.96	179.12	182.11	4.98	212.85	1059
Milne Creek	4206.78	350-Yr	42.29	179.12	181.26	3.53	120.79	426.48
Milne Creek	4206.78	100-Yr	31.47	179.12	181.02	3.05	94.14	286.89
Milne Creek	4206.78	50-Yr	26.36	179.12	180.88	2.8	81.57	228.16
Milne Creek	4206.78	25-Yr	21	179.12	180.71	2.51	68.4	171.99
Milne Creek	4206.78	10-Yr	16.05	179.12	180.52	2.23	56.51	126.16
Milne Creek	4206.78	5-Yr	12.64	179.12	180.37	2.02	48.15	97.13
Milne Creek	4206.78	2-Yr	6.66	179.12	180.04	1.56	32.44	50.54
Milne Creek	4107.81	Regional	89.96	178.63	181.77	4.03	138.01	555.91
Milne Creek	4107.81	350-Yr	42.29	178.63	180.82	3.19	98.08	312.54
Milne Creek	4107.81	100-Yr	31.47	178.63	180.55	2.86	82.61	236.1
Milne Creek	4107.81	50-Yr	26.36	178.63	180.4	2.69	75.52	203.37
Milne Creek	4107.81	25-Yr	21	178.63	180.23	2.48	66.3	164.28
Milne Creek	4107.81	10-Yr	16.05	178.63	180.08	2.19	53.69	117.5
Milne Creek	4107.81	5-Yr	12.64	178.63	179.89	2.08	50.82	105.52
Milne Creek	4107.81	2-Yr	6.66	178.63	179.53	1.68	37.88	63.7
Milne Creek	4009.45	Regional	89.96	177.63	180.75	5.1	227.15	1158.16
Milne Creek	4009.45	350-Yr	42.29	177.63	180.01	3.8	139.43	529.71
Milne Creek	4009.45	100-Yr	31.47	177.63	179.72	3.53	126.41	446.14
Milne Creek	4009.45	50-Yr	26.36	177.63	179.57	3.37	118.68	399.71
Milne Creek	4009.45	25-Yr	21	177.63	179.34	3.26	117.12	382.3
Milne Creek	4009.45	10-Yr	16.05	177.63	179.03	3.31	130.4	431.19
Milne Creek	4009.45	5-Yr	12.64	177.63	178.89	3.01	113.08	340.44
Milne Creek	4009.45	2-Yr	6.66	177.63	178.57	2.39	81.59	195.22
Milne Creek	3909.86	Regional	89.96	176.55	180.33	2.07	34.08	70.71

HEC-RAS Reach ID	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Vel Chnl	Shear Chan	Power Chan
			(m ³ /s)	(m)	(m)	(m/s)	(N/m ²)	(N/m s)
Milne Creek	3909.86	350-Yr	42.29	176.55	178.06	3.53	138.24	488.39
Milne Creek	3909.86	100-Yr	31.47	176.55	177.82	3.22	122.32	393.51
Milne Creek	3909.86	50-Yr	26.36	176.55	177.7	3.04	113.8	346.25
Milne Creek	3909.86	25-Yr	21	176.55	177.57	2.82	102.7	289.63
Milne Creek	3909.86	10-Yr	16.05	176.55	177.44	2.59	92.29	239.4
Milne Creek	3909.86	5-Yr	12.64	176.55	177.34	2.4	83.23	199.67
Milne Creek	3909.86	2-Yr	6.66	176.55	177.12	1.97	64.11	126.58
Milne Creek	3810.9	Regional	89.96	174.7	180.37	1.27	12.32	15.63
Milne Creek	3810.9	350-Yr	42.29	174.7	176.67	3.88	168.54	654.69
Milne Creek	3810.9	100-Yr	31.47	174.7	176.41	3.53	147.06	519.06
Milne Creek	3810.9	50-Yr	26.36	174.7	176.36	3.06	111.68	341.85
Milne Creek	3810.9	25-Yr	21	174.7	176.18	2.85	101.44	289.34
Milne Creek	3810.9	10-Yr	16.05	174.7	176.03	2.54	83.76	212.47
Milne Creek	3810.9	5-Yr	12.64	174.7	175.91	2.29	71.2	163.24
Milne Creek	3810.9	2-Yr	6.66	174.7	175.63	1.74	45.6	79.27
Milne Creek	3711.92	Regional	89.96	173.86	180.37	1.01	6.75	6.83
Milne Creek	3711.92	350-Yr	42.29	173.86	176.09	2.79	74.94	209.2
Milne Creek	3711.92	100-Yr	31.47	173.86	175.47	3.32	120.02	398.91
Milne Creek	3711.92	50-Yr	26.36	173.86	175.25	3.37	130.16	438.39
Milne Creek	3711.92	25-Yr	21	173.86	175.11	3.06	112.24	343.78
Milne Creek	3711.92	10-Yr	16.05	173.86	174.94	2.84	102.67	291.72
Milne Creek	3711.92	5-Yr	12.64	173.86	174.81	2.64	93.51	246.87
Milne Creek	3711.92	2-Yr	6.66	173.86	174.54	2.19	74.04	161.83
Milne Creek	3612.95	Regional	89.96	173	180.37	0.61	2.38	1.45
Milne Creek	3612.95	350-Yr	42.29	173	176.13	1.44	18.25	26.32
Milne Creek	3612.95	100-Yr	31.47	173	175.29	1.81	32.24	58.23

HEC-RAS Reach ID	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Vel Chnl	Shear Chan	Power Chan
			(m ³ /s)	(m)	(m)	(m/s)	(N/m ²)	(N/m s)
Milne Creek	3612.95	50-Yr	26.36	173	174.9	1.95	40.65	79.44
Milne Creek	3612.95	25-Yr	21	173	174.52	2.08	50.39	104.64
Milne Creek	3612.95	10-Yr	16.05	173	174.26	2.02	51.18	103.52
Milne Creek	3612.95	5-Yr	12.64	173	174.13	1.84	43.65	80.31
Milne Creek	3612.95	2-Yr	6.66	173	173.9	1.28	22.53	28.87
Milne Creek	3514.48	Regional	89.96	172.57	180.36	0.74	3.44	2.55
Milne Creek	3514.48	350-Yr	42.29	172.57	176.11	1.06	9.31	9.83
Milne Creek	3514.48	100-Yr	31.47	172.57	175.27	1.15	12.33	14.23
Milne Creek	3514.48	50-Yr	26.36	172.57	174.84	1.22	14.79	18.07
Milne Creek	3514.48	25-Yr	21	172.57	174.37	1.31	18.81	24.7
Milne Creek	3514.48	10-Yr	16.05	172.57	173.91	1.5	27.77	41.56
Milne Creek	3514.48	5-Yr	12.64	172.57	173.57	1.76	41.65	73.32
Milne Creek	3514.48	2-Yr	6.66	172.57	173.11	2.06	68.38	141.06
Milne Creek	3414.63	Regional	89.96	171.64	180.36	0.68	2.77	1.88
Milne Creek	3414.63	350-Yr	42.29	171.64	176.09	1.02	7.87	7.99
Milne Creek	3414.63	100-Yr	31.47	171.64	175.24	1.05	9.04	9.48
Milne Creek	3414.63	50-Yr	26.36	171.64	174.81	1.04	9.36	9.76
Milne Creek	3414.63	25-Yr	21	171.64	174.33	1.04	9.92	10.34
Milne Creek	3414.63	10-Yr	16.05	171.64	173.84	1.04	10.56	10.95
Milne Creek	3414.63	5-Yr	12.64	171.64	173.48	1.03	11.14	11.47
Milne Creek	3414.63	2-Yr	6.66	171.64	172.77	0.99	12.54	12.43
Milne Creek	3388.53	Regional	89.96	171.37	180.34	0.78	3.97	3.11
Milne Creek	3388.53	350-Yr	42.29	171.37	176.05	1.11	10.23	11.39
Milne Creek	3388.53	100-Yr	31.47	171.37	175.22	1.07	10.16	10.82
Milne Creek	3388.53	50-Yr	26.36	171.37	174.79	1.04	10.29	10.74
Milne Creek	3388.53	25-Yr	21	171.37	174.31	1.03	10.64	10.93

HEC-RAS Reach ID	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Vel Chnl	Shear Chan	Power Chan
			(m ³ /s)	(m)	(m)	(m/s)	(N/m ²)	(N/m s)
Milne Creek	3388.53	10-Yr	16.05	171.37	173.82	1.02	11.01	11.19
Milne Creek	3388.53	5-Yr	12.64	171.37	173.46	1	10.95	10.91
Milne Creek	3388.53	2-Yr	6.66	171.37	172.74	0.92	10.58	9.78
Milne Creek	3348.7 don 215		Culvert					
Milne Creek	3305.64	Regional	89.96	169.6	172.38	4.44	199.58	885.52
Milne Creek	3305.64	350-Yr	42.29	169.6	171.42	3.69	154.03	567.72
Milne Creek	3305.64	100-Yr	31.47	169.6	171.14	3.41	138.07	471.42
Milne Creek	3305.64	50-Yr	26.36	169.6	170.99	3.27	129.86	424.28
Milne Creek	3305.64	25-Yr	21	169.6	170.81	3.09	120.22	370.99
Milne Creek	3305.64	10-Yr	16.05	169.6	170.64	2.86	107.54	307.12
Milne Creek	3305.64	5-Yr	12.64	169.6	170.51	2.67	97.42	259.8
Milne Creek	3305.64	2-Yr	6.66	169.6	170.22	2.24	77.08	172.83
Milne Creek	3266.35	Regional	89.96	167.85	171.62	2.89	87.9	253.93
Milne Creek	3266.35	350-Yr	42.29	167.85	170.53	2.22	59.51	131.83
Milne Creek	3266.35	100-Yr	31.47	167.85	170.18	1.99	51.3	102.3
Milne Creek	3266.35	50-Yr	26.36	167.85	170.01	1.86	45.64	84.67
Milne Creek	3266.35	25-Yr	21	167.85	169.78	1.72	36.96	63.51
Milne Creek	3266.35	10-Yr	16.05	167.85	169.55	1.57	29.36	46.01
Milne Creek	3266.35	5-Yr	12.64	167.85	169.38	1.43	24.72	35.36
Milne Creek	3266.35	2-Yr	6.66	167.85	169.01	1.11	16.16	17.92
Milne Creek	3209.9	Regional	89.96	167.85	170.66	4.41	231.25	1020.25
Milne Creek	3209.9	350-Yr	42.29	167.85	169.71	3.65	164.05	598.31
Milne Creek	3209.9	100-Yr	31.47	167.85	169.57	3.04	110.51	335.44
Milne Creek	3209.9	50-Yr	26.36	167.85	169.41	2.91	101.58	295.38
Milne Creek	3209.9	25-Yr	21	167.85	169.26	2.69	89.43	240.27

HEC-RAS Reach ID	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Vel Chnl	Shear Chan	Power Chan
			(m³/s)	(m)	(m)	(m/s)	(N/m²)	(N/m s)
Milne Creek	3209.9	10-Yr	16.05	167.85	169.08	2.48	79.34	196.62
Milne Creek	3209.9	5-Yr	12.64	167.85	168.93	2.34	73.36	171.31
Milne Creek	3209.9	2-Yr	6.66	167.85	168.63	1.98	58.97	116.71
Milne Creek	3118.09	Regional	112.72	166.43	169.6	4.16	155.36	646.93
Milne Creek	3118.09	350-Yr	50.31	166.43	168.75	3.47	122.44	424.39
Milne Creek	3118.09	100-Yr	36.99	166.43	168.28	3.66	150.6	550.94
Milne Creek	3118.09	50-Yr	31.37	166.43	168.15	3.46	139.26	481.27
Milne Creek	3118.09	25-Yr	25.38	166.43	167.98	3.24	128.36	415.64
Milne Creek	3118.09	10-Yr	19.77	166.43	167.81	3	115.17	345.67
Milne Creek	3118.09	5-Yr	15.25	166.43	167.64	2.84	107.02	303.83
Milne Creek	3118.09	2-Yr	7.38	166.43	167.27	2.36	82.57	194.49
Milne Creek	3018.96	Regional	112.72	165.1	169.7	1.6	19.59	31.35
Milne Creek	3018.96	350-Yr	50.31	165.1	167.23	3.14	100.89	316.51
Milne Creek	3018.96	100-Yr	36.99	165.1	166.96	2.92	92.75	271.25
Milne Creek	3018.96	50-Yr	31.37	165.1	166.83	2.79	86.97	242.76
Milne Creek	3018.96	25-Yr	25.38	165.1	166.67	2.61	79.54	207.82
Milne Creek	3018.96	10-Yr	19.77	165.1	166.5	2.38	69.43	165.28
Milne Creek	3018.96	5-Yr	15.25	165.1	166.35	2.16	59.61	128.55
Milne Creek	3018.96	2-Yr	7.38	165.1	166.01	1.62	37.07	59.93
Milne Creek	2920.65	Regional	112.72	164.32	169.68	1.08	24.75	26.68
Milne Creek	2920.65	350-Yr	50.31	164.32	166.33	2.98	267.52	797.96
Milne Creek	2920.65	100-Yr	36.99	164.32	166.11	2.56	204.95	523.79
Milne Creek	2920.65	50-Yr	31.37	164.32	166.01	2.35	177.32	416.77
Milne Creek	2920.65	25-Yr	25.38	164.32	165.9	2.07	140.66	290.97
Milne Creek	2920.65	10-Yr	19.77	164.32	165.77	1.81	111.96	203.2
Milne Creek	2920.65	5-Yr	15.25	164.32	165.58	1.68	101.07	169.79

HEC-RAS Reach ID	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Vel Chnl	Shear Chan	Power Chan
			(m ³ /s)	(m)	(m)	(m/s)	(N/m ²)	(N/m s)
Milne Creek	2920.65	2-Yr	7.38	164.32	165.13	1.44	87.82	126.32
Milne Creek	2814.39	Regional	112.72	162.84	169.68	0.53	6.82	3.63
Milne Creek	2814.39	350-Yr	50.31	162.84	165.66	1.76	105.56	185.96
Milne Creek	2814.39	100-Yr	36.99	162.84	165.38	1.65	97.21	160.72
Milne Creek	2814.39	50-Yr	31.37	162.84	165.25	1.61	94.22	151.49
Milne Creek	2814.39	25-Yr	25.38	162.84	165.02	1.66	105.54	175.58
Milne Creek	2814.39	10-Yr	19.77	162.84	164.8	1.65	108.72	178.98
Milne Creek	2814.39	5-Yr	15.25	162.84	164.58	1.53	95.81	147
Milne Creek	2814.39	2-Yr	7.38	162.84	164.07	1.22	58.4	71.04
Milne Creek	2722.21	Regional	112.72	162.14	169.65	0.84	14.72	12.36
Milne Creek	2722.21	350-Yr	50.31	162.14	164.09	3.56	437.26	1557.93
Milne Creek	2722.21	100-Yr	36.99	162.14	163.74	3.42	436.58	1491.56
Milne Creek	2722.21	50-Yr	31.37	162.14	163.61	3.25	408.7	1326.54
Milne Creek	2722.21	25-Yr	25.38	162.14	163.66	2.53	245.07	619.72
Milne Creek	2722.21	10-Yr	19.77	162.14	163.63	2.02	157.2	317.14
Milne Creek	2722.21	5-Yr	15.25	162.14	163.49	1.79	129.29	231.27
Milne Creek	2722.21	2-Yr	7.38	162.14	163.04	1.51	96.58	146.23
Milne Creek	2623.24	Regional	112.72	160.02	169.65	0.38	2.11	0.8
Milne Creek	2623.24	350-Yr	50.31	160.02	164.45	0.65	8.09	5.28
Milne Creek	2623.24	100-Yr	36.99	160.02	162.73	1.26	36.47	45.97
Milne Creek	2623.24	50-Yr	31.37	160.02	162.17	1.82	83.45	151.91
Milne Creek	2623.24	25-Yr	25.38	160.02	161.58	2.64	202.35	535.05
Milne Creek	2623.24	10-Yr	19.77	160.02	161.27	2.85	259.49	738.27
Milne Creek	2623.24	5-Yr	15.25	160.02	161.13	2.65	238.87	632.31
Milne Creek	2623.24	2-Yr	7.38	160.02	160.88	1.97	134.34	265.32

HEC-RAS Reach ID	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Vel Chnl	Shear Chan	Power Chan
			(m ³ /s)	(m)	(m)	(m/s)	(N/m ²)	(N/m s)
Milne Creek	2573.91	Regional	112.72	159.28	169.65	0.43	1.3	0.55
Milne Creek	2573.91	350-Yr	50.31	159.28	164.45	0.56	2.81	1.58
Milne Creek	2573.91	100-Yr	36.99	159.28	162.72	0.87	7.52	6.57
Milne Creek	2573.91	50-Yr	31.37	159.28	162.19	1.04	11	11.4
Milne Creek	2573.91	25-Yr	25.38	159.28	161.65	1.27	17.01	21.52
Milne Creek	2573.91	10-Yr	19.77	159.28	161.16	1.56	26.28	40.91
Milne Creek	2573.91	5-Yr	15.25	159.28	160.77	1.81	34.75	62.83
Milne Creek	2573.91	2-Yr	7.38	159.28	160.15	1.95	53.45	103.97
Milne Creek	2528.58	Regional	112.72	158.51	169.65	0.43	3.49	1.49
Milne Creek	2528.58	350-Yr	50.31	158.51	164.45	0.53	6.77	3.6
Milne Creek	2528.58	100-Yr	36.99	158.51	162.71	0.71	13.71	9.75
Milne Creek	2528.58	50-Yr	31.37	158.51	162.17	0.78	17.41	13.59
Milne Creek	2528.58	25-Yr	25.38	158.51	161.63	0.87	23.29	20.37
Milne Creek	2528.58	10-Yr	19.77	158.51	161.12	1	32.61	32.55
Milne Creek	2528.58	5-Yr	15.25	158.51	160.69	1.13	44.84	50.54
Milne Creek	2528.58	2-Yr	7.38	158.51	159.9	1.11	53.18	59.25
Milne Creek	2511.82	Regional	112.72	158.52	169.62	0.84	13.86	11.62
Milne Creek	2511.82	350-Yr	50.31	158.52	164.35	1.22	37.24	45.55
Milne Creek	2511.82	100-Yr	36.99	158.52	162.6	1.36	53.01	72.17
Milne Creek	2511.82	50-Yr	31.37	158.52	162.06	1.37	57.02	78.24
Milne Creek	2511.82	25-Yr	25.38	158.52	161.51	1.37	61.04	83.66
Milne Creek	2511.82	10-Yr	19.77	158.52	161.01	1.36	65.37	89.21
Milne Creek	2511.82	5-Yr	15.25	158.52	160.58	1.36	63.94	86.67
Milne Creek	2511.82	2-Yr	7.38	158.52	159.78	1.24	49.32	60.98
Milne Creek	2469.15 don 213		Culvert					

HEC-RAS Reach ID	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Vel Chnl	Shear Chan	Power Chan
			(m ³ /s)	(m)	(m)	(m/s)	(N/m ²)	(N/m s)
Milne Creek	2404.59	Regional	123.82	157.93	161.7	5.53	771.67	4264.32
Milne Creek	2404.59	350-Yr	52.51	157.93	160.31	4.2	514.58	2163.02
Milne Creek	2404.59	100-Yr	38.56	157.93	159.93	3.88	416.6	1616.11
Milne Creek	2404.59	50-Yr	32.76	157.93	159.75	3.71	369.47	1372.03
Milne Creek	2404.59	25-Yr	26.62	157.93	159.54	3.52	318.49	1122.28
Milne Creek	2404.59	10-Yr	20.62	157.93	159.32	3.28	279.95	919.34
Milne Creek	2404.59	5-Yr	15.38	157.93	159.11	3.04	243.8	740.16
Milne Creek	2404.59	2-Yr	7.03	157.93	158.68	2.41	163.5	394.64
Milne Creek	2366.76	Regional	123.82	156.11	159.8	4.11	388.81	1599.09
Milne Creek	2366.76	350-Yr	52.51	156.11	158.7	3.19	265.43	845.67
Milne Creek	2366.76	100-Yr	38.56	156.11	158.3	3.02	254.17	768.12
Milne Creek	2366.76	50-Yr	32.76	156.11	158.15	2.87	236.13	678.28
Milne Creek	2366.76	25-Yr	26.62	156.11	157.99	2.63	204.61	538.69
Milne Creek	2366.76	10-Yr	20.62	156.11	157.79	2.38	175.59	418.53
Milne Creek	2366.76	5-Yr	15.38	156.11	157.58	2.09	141.5	295.06
Milne Creek	2366.76	2-Yr	7.03	156.11	157.14	1.51	77.65	116.94
Milne Creek	2326.61	Regional	123.82	155.63	158.94	4.87	420.05	2043.95
Milne Creek	2326.61	350-Yr	52.51	155.63	157.65	4.19	370.73	1554.79
Milne Creek	2326.61	100-Yr	38.56	155.63	157.35	3.72	308.45	1147.75
Milne Creek	2326.61	50-Yr	32.76	155.63	157.19	3.56	292.84	1043.54
Milne Creek	2326.61	25-Yr	26.62	155.63	156.99	3.44	287	986.82
Milne Creek	2326.61	10-Yr	20.62	155.63	156.81	3.15	253.14	796.86
Milne Creek	2326.61	5-Yr	15.38	155.63	156.63	2.87	223.82	642.15
Milne Creek	2326.61	2-Yr	7.03	155.63	156.26	2.26	166.01	375.77
Milne Creek	2227.83	Regional	123.82	153.91	156.95	2.37	82.09	194.87
Milne Creek	2227.83	350-Yr	52.51	153.91	155.79	1.8	55.68	99.96

HEC-RAS Reach ID	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Vel Chnl	Shear Chan	Power Chan
			(m ³ /s)	(m)	(m)	(m/s)	(N/m ²)	(N/m s)
Milne Creek	2227.83	100-Yr	38.56	153.91	155.47	1.65	50.2	82.69
Milne Creek	2227.83	50-Yr	32.76	153.91	155.32	1.57	47.42	74.58
Milne Creek	2227.83	25-Yr	26.62	153.91	155.16	1.48	44.1	65.37
Milne Creek	2227.83	10-Yr	20.62	153.91	154.98	1.38	40.81	56.5
Milne Creek	2227.83	5-Yr	15.38	153.91	154.81	1.27	36.68	46.58
Milne Creek	2227.83	2-Yr	7.03	153.91	154.49	1.02	28.51	29.1
Milne Creek	2128.38	Regional	123.82	152.67	156.29	3.19	288.29	920.44
Milne Creek	2128.38	350-Yr	52.51	152.67	154.76	3.09	333.91	1031.31
Milne Creek	2128.38	100-Yr	38.56	152.67	154.57	2.57	241.24	620.77
Milne Creek	2128.38	50-Yr	32.76	152.67	154.56	2.2	176.42	387.87
Milne Creek	2128.38	25-Yr	26.62	152.67	154.42	1.98	147.88	292.8
Milne Creek	2128.38	10-Yr	20.62	152.67	154.24	1.78	124.81	221.69
Milne Creek	2128.38	5-Yr	15.38	152.67	154.05	1.57	103.04	161.74
Milne Creek	2128.38	2-Yr	7.03	152.67	153.66	1.17	63	73.78
Milne Creek	2029.41	Regional	123.82	151.4	156.42	1.37	25.07	34.28
Milne Creek	2029.41	350-Yr	52.51	151.4	153.1	3.16	198.17	626.68
Milne Creek	2029.41	100-Yr	38.56	151.4	152.87	2.93	180.32	529.03
Milne Creek	2029.41	50-Yr	32.76	151.4	152.65	3.12	217.95	680.81
Milne Creek	2029.41	25-Yr	26.62	151.4	152.49	2.98	209.45	624.46
Milne Creek	2029.41	10-Yr	20.62	151.4	152.35	2.76	189.62	523.55
Milne Creek	2029.41	5-Yr	15.38	151.4	152.2	2.54	166.28	422.51
Milne Creek	2029.41	2-Yr	7.03	151.4	151.91	2	114.97	230.42
Milne Creek	1929.3	Regional	123.82	149.46	156.41	0.95	10.06	9.6
Milne Creek	1929.3	350-Yr	52.51	149.46	151.61	2.15	78.73	169.18
Milne Creek	1929.3	100-Yr	38.56	149.46	151.35	1.88	63.68	119.82
Milne Creek	1929.3	50-Yr	32.76	149.46	151.2	1.79	59.47	106.26

HEC-RAS Reach ID	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Vel Chnl	Shear Chan	Power Chan
			(m ³ /s)	(m)	(m)	(m/s)	(N/m ²)	(N/m s)
Milne Creek	1929.3	25-Yr	26.62	149.46	151.04	1.65	52.26	86.11
Milne Creek	1929.3	10-Yr	20.62	149.46	150.84	1.53	44.05	67.43
Milne Creek	1929.3	5-Yr	15.38	149.46	150.64	1.4	37.12	51.89
Milne Creek	1929.3	2-Yr	7.03	149.46	150.24	1.11	24.23	26.9
Milne Creek	1831.47	Regional	123.82	148.73	156.41	0.64	5.92	3.8
Milne Creek	1831.47	350-Yr	52.51	148.73	150.7	3.04	213.37	648.18
Milne Creek	1831.47	100-Yr	38.56	148.73	150.48	2.72	178.46	485.11
Milne Creek	1831.47	50-Yr	32.76	148.73	150.35	2.55	161.68	411.95
Milne Creek	1831.47	25-Yr	26.62	148.73	150.19	2.39	148.48	355.36
Milne Creek	1831.47	10-Yr	20.62	148.73	150.01	2.19	130.83	286.83
Milne Creek	1831.47	5-Yr	15.38	148.73	149.84	1.98	112.61	222.55
Milne Creek	1831.47	2-Yr	7.03	148.73	149.48	1.48	72.18	106.99
Milne Creek	1731.51	Regional	123.82	147.51	156.41	0.52	3.24	1.68
Milne Creek	1731.51	350-Yr	52.51	147.51	149.46	2.99	186.16	556.43
Milne Creek	1731.51	100-Yr	38.56	147.51	149.11	2.83	179.78	508.49
Milne Creek	1731.51	50-Yr	32.76	147.51	149	2.64	161.68	427.08
Milne Creek	1731.51	25-Yr	26.62	147.51	148.87	2.4	138.84	333.67
Milne Creek	1731.51	10-Yr	20.62	147.51	148.73	2.14	115.4	247.08
Milne Creek	1731.51	5-Yr	15.38	147.51	148.58	1.89	96.08	182.02
Milne Creek	1731.51	2-Yr	7.03	147.51	148.24	1.44	60.46	86.92
Milne Creek	1632.94	Regional	123.82	146.65	156.41	0.41	2.84	1.15
Milne Creek	1632.94	350-Yr	52.51	146.65	149.29	1.35	50.38	68.14
Milne Creek	1632.94	100-Yr	38.56	146.65	148.78	1.36	55.15	74.85
Milne Creek	1632.94	50-Yr	32.76	146.65	148.58	1.33	55.44	74.02
Milne Creek	1632.94	25-Yr	26.62	146.65	148.38	1.28	53.38	68.4
Milne Creek	1632.94	10-Yr	20.62	146.65	148.19	1.19	48.4	57.65

HEC-RAS Reach ID	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Vel Chnl	Shear Chan	Power Chan
			(m ³ /s)	(m)	(m)	(m/s)	(N/m ²)	(N/m s)
Milne Creek	1632.94	5-Yr	15.38	146.65	148.02	1.07	41.16	44.11
Milne Creek	1632.94	2-Yr	7.03	146.65	147.69	0.8	25.94	20.75
Milne Creek	1534.55	Regional	123.82	146.21	156.41	0.34	1.82	0.62
Milne Creek	1534.55	350-Yr	52.51	146.21	148.98	1.68	70.19	118.03
Milne Creek	1534.55	100-Yr	38.56	146.21	148.34	1.73	82.1	142.29
Milne Creek	1534.55	50-Yr	32.76	146.21	148.07	1.74	87.43	152.53
Milne Creek	1534.55	25-Yr	26.62	146.21	147.79	1.74	92.15	160.07
Milne Creek	1534.55	10-Yr	20.62	146.21	147.52	1.71	95.79	163.58
Milne Creek	1534.55	5-Yr	15.38	146.21	147.27	1.66	98.68	164.02
Milne Creek	1534.55	2-Yr	7.03	146.21	146.83	1.55	100.35	155.41
Milne Creek	1437.45	Regional	123.82	145.58	156.41	0.3	0.88	0.26
Milne Creek	1437.45	350-Yr	52.51	145.58	148.95	0.99	14.62	14.54
Milne Creek	1437.45	100-Yr	38.56	145.58	148.25	1.06	18.09	19.21
Milne Creek	1437.45	50-Yr	32.76	145.58	147.95	1.08	19.64	21.25
Milne Creek	1437.45	25-Yr	26.62	145.58	147.62	1.08	20.47	22.02
Milne Creek	1437.45	10-Yr	20.62	145.58	147.29	1.04	20.28	21.01
Milne Creek	1437.45	5-Yr	15.38	145.58	146.98	0.97	19.14	18.64
Milne Creek	1437.45	2-Yr	7.03	145.58	146.36	0.88	14.81	13.03
Milne Creek	1335.82	Regional	123.82	144.83	156.4	0.44	2.64	1.15
Milne Creek	1335.82	350-Yr	52.51	144.83	148.86	1.26	31.7	39.92
Milne Creek	1335.82	100-Yr	38.56	144.83	148.1	1.37	40.74	55.96
Milne Creek	1335.82	50-Yr	32.76	144.83	147.79	1.31	38.33	50.12
Milne Creek	1335.82	25-Yr	26.62	144.83	147.45	1.24	36.28	45.1
Milne Creek	1335.82	10-Yr	20.62	144.83	147.11	1.16	33.16	38.34
Milne Creek	1335.82	5-Yr	15.38	144.83	146.78	1.06	29.42	31.06
Milne Creek	1335.82	2-Yr	7.03	144.83	146.13	0.83	20.92	17.42

HEC-RAS Reach ID	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Vel Chnl	Shear Chan	Power Chan
			(m³/s)	(m)	(m)	(m/s)	(N/m²)	(N/m s)
Milne Creek	1228.29	Regional	123.82	144.26	156.4	0.3	0.93	0.28
Milne Creek	1228.29	350-Yr	52.51	144.26	148.87	0.65	6.08	3.92
Milne Creek	1228.29	100-Yr	38.56	144.26	148.11	0.7	7.62	5.34
Milne Creek	1228.29	50-Yr	32.76	144.26	147.79	0.73	8.57	6.27
Milne Creek	1228.29	25-Yr	26.62	144.26	147.43	0.78	10.07	7.84
Milne Creek	1228.29	10-Yr	20.62	144.26	147.05	0.85	12.45	10.55
Milne Creek	1228.29	5-Yr	15.38	144.26	146.7	0.85	13.21	11.26
Milne Creek	1228.29	2-Yr	7.03	144.26	146.02	0.69	9.62	6.61
Milne Creek	1167.07	Regional	123.82	143.98	156.36	0.88	8.46	7.41
Milne Creek	1167.07	350-Yr	52.51	143.98	148.79	1.07	17.77	19
Milne Creek	1167.07	100-Yr	38.56	143.98	148.05	0.96	15.4	14.83
Milne Creek	1167.07	50-Yr	32.76	143.98	147.73	0.91	14.05	12.72
Milne Creek	1167.07	25-Yr	26.62	143.98	147.38	0.83	12.37	10.31
Milne Creek	1167.07	10-Yr	20.62	143.98	147.02	0.75	10.45	7.82
Milne Creek	1167.07	5-Yr	15.38	143.98	146.67	0.66	8.51	5.6
Milne Creek	1167.07	2-Yr	7.03	143.98	146	0.46	4.69	2.14
Milne Creek	1121.89 don 211		Culvert					
Milne Creek	1056.11	Regional	126.2	141.22	145.07	3.05	225.18	687.64
Milne Creek	1056.11	350-Yr	29.88	141.22	143.02	1.6	80.64	129.09
Milne Creek	1056.11	100-Yr	24.8	141.22	142.84	1.49	72.91	108.84
Milne Creek	1056.11	50-Yr	22.63	141.22	142.75	1.44	69.34	99.99
Milne Creek	1056.11	25-Yr	20.2	141.22	142.66	1.38	65.12	89.95
Milne Creek	1056.11	10-Yr	17.03	141.22	142.53	1.29	59.06	76.34
Milne Creek	1056.11	5-Yr	13.74	141.22	142.38	1.19	52.03	61.77
Milne Creek	1056.11	2-Yr	7	141.22	142.03	0.92	35.65	32.69

HEC-RAS Reach ID	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Vel Chnl	Shear Chan	Power Chan
			(m ³ /s)	(m)	(m)	(m/s)	(N/m ²)	(N/m s)
Milne Creek	1018.95	Regional	126.2	140.89	144.07	4.78	195.15	933.52
Milne Creek	1018.95	350-Yr	29.88	140.89	142.33	3.05	106.76	325.62
Milne Creek	1018.95	100-Yr	24.8	140.89	142.22	2.8	92.87	260.01
Milne Creek	1018.95	50-Yr	22.63	140.89	142.17	2.69	87.28	234.9
Milne Creek	1018.95	25-Yr	20.2	140.89	142.1	2.57	81.2	208.51
Milne Creek	1018.95	10-Yr	17.03	140.89	142	2.41	74.41	179.65
Milne Creek	1018.95	5-Yr	13.74	140.89	141.88	2.25	67.83	152.66
Milne Creek	1018.95	2-Yr	7	140.89	141.57	1.88	53.7	101.19
Milne Creek	986.14	Regional	126.2	140.54	143.46	3.89	137.14	533.47
Milne Creek	986.14	350-Yr	29.88	140.54	142.29	2.18	53.34	116.41
Milne Creek	986.14	100-Yr	24.8	140.54	142.15	2.02	47.38	95.72
Milne Creek	986.14	50-Yr	22.63	140.54	142.09	1.95	44.83	87.28
Milne Creek	986.14	25-Yr	20.2	140.54	142.02	1.86	41.72	77.62
Milne Creek	986.14	10-Yr	17.03	140.54	141.91	1.75	37.63	65.72
Milne Creek	986.14	5-Yr	13.74	140.54	141.78	1.61	32.88	52.94
Milne Creek	986.14	2-Yr	7	140.54	141.46	1.24	21.26	26.29
Milne Creek	940.36	Regional	126.2	140.38	143.14	3.52	346.38	1219.48
Milne Creek	940.36	350-Yr	29.88	140.38	141.57	3.09	367.25	1136.52
Milne Creek	940.36	100-Yr	24.8	140.38	141.45	2.91	337.7	982.15
Milne Creek	940.36	50-Yr	22.63	140.38	141.4	2.83	327.11	926.42
Milne Creek	940.36	25-Yr	20.2	140.38	141.34	2.74	313.05	856.22
Milne Creek	940.36	10-Yr	17.03	140.38	141.25	2.58	290.31	750.36
Milne Creek	940.36	5-Yr	13.74	140.38	141.16	2.42	267.04	646.77
Milne Creek	940.36	2-Yr	7	140.38	140.93	1.99	191	380.19
Milne Creek	841.59	Regional	126.2	138.97	141.78	2.47	83.69	206.63
Milne Creek	841.59	350-Yr	29.88	138.97	140.59	1.13	20.84	23.54

HEC-RAS Reach ID	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Vel Chnl	Shear Chan	Power Chan
			(m ³ /s)	(m)	(m)	(m/s)	(N/m ²)	(N/m s)
Milne Creek	841.59	100-Yr	24.8	138.97	140.43	1.06	18.94	20.09
Milne Creek	841.59	50-Yr	22.63	138.97	140.36	1.03	18.28	18.9
Milne Creek	841.59	25-Yr	20.2	138.97	140.26	1.01	17.68	17.8
Milne Creek	841.59	10-Yr	17.03	138.97	140.14	0.97	16.95	16.42
Milne Creek	841.59	5-Yr	13.74	138.97	140	0.92	15.94	14.69
Milne Creek	841.59	2-Yr	7	138.97	139.66	0.81	13.19	10.65
Milne Creek	720.85	Regional	126.2	137.93	140.84	4.1	297.21	1219.81
Milne Creek	720.85	350-Yr	29.88	137.93	139.75	2.97	188.19	559.8
Milne Creek	720.85	100-Yr	24.8	137.93	139.64	2.75	165.31	454.95
Milne Creek	720.85	50-Yr	22.63	137.93	139.59	2.62	151.59	397
Milne Creek	720.85	25-Yr	20.2	137.93	139.53	2.47	137.01	338.23
Milne Creek	720.85	10-Yr	17.03	137.93	139.43	2.28	119.88	272.91
Milne Creek	720.85	5-Yr	13.74	137.93	139.3	2.08	103.71	215.3
Milne Creek	720.85	2-Yr	7	137.93	138.94	1.65	71.44	117.83
Milne Creek	643.81	Regional	126.2	137.23	140.65	2.2	101.26	222.28
Milne Creek	643.81	350-Yr	29.88	137.23	139.37	1.75	77.68	136.25
Milne Creek	643.81	100-Yr	24.8	137.23	139.21	1.7	75.18	127.74
Milne Creek	643.81	50-Yr	22.63	137.23	139.14	1.67	73.56	122.69
Milne Creek	643.81	25-Yr	20.2	137.23	139.05	1.62	71.22	115.72
Milne Creek	643.81	10-Yr	17.03	137.23	138.92	1.55	67.08	104.15
Milne Creek	643.81	5-Yr	13.74	137.23	138.78	1.43	59.52	85.39
Milne Creek	643.81	2-Yr	7	137.23	138.42	1.08	38.43	41.62
Milne Creek	545.34	Regional	126.2	136.17	139.41	3.94	501.14	1976.25
Milne Creek	545.34	350-Yr	29.88	136.17	138.18	2.71	292.85	794.47
Milne Creek	545.34	100-Yr	24.8	136.17	138	2.59	277.77	719.37
Milne Creek	545.34	50-Yr	22.63	136.17	137.91	2.54	269.74	684.15

HEC-RAS Reach ID	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Vel Chnl	Shear Chan	Power Chan
			(m ³ /s)	(m)	(m)	(m/s)	(N/m ²)	(N/m s)
Milne Creek	545.34	25-Yr	20.2	136.17	137.82	2.47	258.83	638.99
Milne Creek	545.34	10-Yr	17.03	136.17	137.66	2.43	250.63	609.84
Milne Creek	545.34	5-Yr	13.74	136.17	137.47	2.4	242.78	582.58
Milne Creek	545.34	2-Yr	7	136.17	137.02	2.33	226.97	529.7
Milne Creek	445.82	Regional	126.2	134.27	137.53	3.84	349.5	1343.41
Milne Creek	445.82	350-Yr	29.88	134.27	136.18	2.69	212.8	571.76
Milne Creek	445.82	100-Yr	24.8	134.27	136.06	2.43	178.28	432.56
Milne Creek	445.82	50-Yr	22.63	134.27	136.01	2.31	164.46	380.53
Milne Creek	445.82	25-Yr	20.2	134.27	135.94	2.19	150.03	328.46
Milne Creek	445.82	10-Yr	17.03	134.27	135.85	2	128.19	256.08
Milne Creek	445.82	5-Yr	13.74	134.27	135.73	1.79	105.54	189.18
Milne Creek	445.82	2-Yr	7	134.27	135.41	1.32	58.95	77.81
Milne Creek	349.05	Regional	126.2	133.61	136.3	3.01	150.81	453.87
Milne Creek	349.05	350-Yr	29.88	133.61	134.82	2.33	111.15	259.43
Milne Creek	349.05	100-Yr	24.8	133.61	134.69	2.25	107.18	240.63
Milne Creek	349.05	50-Yr	22.63	133.61	134.64	2.19	103.76	227.23
Milne Creek	349.05	25-Yr	20.2	133.61	134.58	2.12	99.06	210.28
Milne Creek	349.05	10-Yr	17.03	133.61	134.48	2.05	95.11	195.44
Milne Creek	349.05	5-Yr	13.74	133.61	134.38	1.96	89.17	174.58
Milne Creek	349.05	2-Yr	7	133.61	134.13	1.68	72.34	121.2
Milne Creek	246.62	Regional	126.2	131.67	135.03	3.94	374.65	1476.31
Milne Creek	246.62	350-Yr	29.88	131.67	133.56	2.27	157.23	356.97
Milne Creek	246.62	100-Yr	24.8	131.67	133.41	2.11	140.82	297.02
Milne Creek	246.62	50-Yr	22.63	131.67	133.34	2.03	133.51	271.68
Milne Creek	246.62	25-Yr	20.2	131.67	133.26	1.95	125.05	243.47
Milne Creek	246.62	10-Yr	17.03	131.67	133.15	1.81	111.61	202

HEC-RAS Reach ID	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Vel Chnl	Shear Chan	Power Chan
			(m ³ /s)	(m)	(m)	(m/s)	(N/m ²)	(N/m s)
Milne Creek	246.62	5-Yr	13.74	131.67	133.01	1.68	98.79	165.9
Milne Creek	246.62	2-Yr	7	131.67	132.64	1.4	67.76	94.54
Milne Creek	148.95	Regional	126.2	129.86	134.65	1.42	39.7	56.31
Milne Creek	148.95	350-Yr	29.88	129.86	131.41	3.27	333.8	1091.51
Milne Creek	148.95	100-Yr	24.8	129.86	131.27	3.11	305.67	952
Milne Creek	148.95	50-Yr	22.63	129.86	131.2	3.05	291.76	890.13
Milne Creek	148.95	25-Yr	20.2	129.86	131.13	2.96	276.92	818.95
Milne Creek	148.95	10-Yr	17.03	129.86	131.01	2.86	269.82	772.76
Milne Creek	148.95	5-Yr	13.74	129.86	130.87	2.74	254.46	696.94
Milne Creek	148.95	2-Yr	7	129.86	130.56	2.3	193.31	443.68
Milne Creek	49.3	Regional	126.2	128.77	134.67	0.41	3.35	1.37
Milne Creek	49.3	350-Yr	29.88	128.77	131.57	0.4	4.25	1.72
Milne Creek	49.3	100-Yr	24.8	128.77	131.12	0.5	7.06	3.56
Milne Creek	49.3	50-Yr	22.63	128.77	131.03	0.5	7.14	3.59
Milne Creek	49.3	25-Yr	20.2	128.77	130.91	0.5	7.23	3.63
Milne Creek	49.3	10-Yr	17.03	128.77	130.76	0.49	7.17	3.53
Milne Creek	49.3	5-Yr	13.74	128.77	130.58	0.48	7.19	3.48
Milne Creek	49.3	2-Yr	7	128.77	130.18	0.38	5	1.92

Blue Ridge Creek

HEC-RAS Reach ID	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Vel Chnl	Shear Chan	Power Chan
			(m ³ /s)	(m)	(m)	(m/s)	(N/m ²)	(N/m s)
Tributary 5	1901.73	Regional	15.6	174.76	176.43	2.62	79.79	209.26
Tributary 5	1901.73	350-Yr	7.14	174.76	175.77	2.64	99.59	262.6
Tributary 5	1901.73	100-Yr	5.3	174.76	175.63	2.44	88.66	215.98
Tributary 5	1901.73	50-Yr	4.45	174.76	175.56	2.33	83.46	194.78
Tributary 5	1901.73	25-Yr	3.43	174.76	175.45	2.19	76.35	167.17
Tributary 5	1901.73	10-Yr	2.42	174.76	175.34	2.01	68.27	137.57
Tributary 5	1901.73	5-Yr	1.81	174.76	175.25	1.87	61.68	115.45
Tributary 5	1901.73	2-Yr	0.61	174.76	175.04	1.4	40.85	57.01
Tributary 5	1804.26	Regional	15.6	172.81	174.09	2.28	63.76	145.49
Tributary 5	1804.26	350-Yr	7.14	172.81	173.68	2.48	87.85	218.01
Tributary 5	1804.26	100-Yr	5.3	172.81	173.58	2.19	71.81	157.11
Tributary 5	1804.26	50-Yr	4.45	172.81	173.55	1.93	56.6	109.13
Tributary 5	1804.26	25-Yr	3.43	172.81	173.48	1.72	47.06	80.87
Tributary 5	1804.26	10-Yr	2.42	172.81	173.4	1.46	35.85	52.19
Tributary 5	1804.26	5-Yr	1.81	172.81	173.33	1.29	29.5	37.91
Tributary 5	1804.26	2-Yr	0.61	172.81	173.13	0.88	15.62	13.74
Tributary 5	1706.8	Regional	15.6	171.62	172.95	2.5	72.24	180.83
Tributary 5	1706.8	350-Yr	7.14	171.62	172.54	2.35	73.44	172.73
Tributary 5	1706.8	100-Yr	5.3	171.62	172.41	2.21	69.28	153.44
Tributary 5	1706.8	50-Yr	4.45	171.62	172.33	2.21	72.65	160.73
Tributary 5	1706.8	25-Yr	3.43	171.62	172.24	2.04	65.16	132.8
Tributary 5	1706.8	10-Yr	2.42	171.62	172.14	1.86	58.79	109.3
Tributary 5	1706.8	5-Yr	1.81	171.62	172.08	1.7	52.13	88.37
Tributary 5	1706.8	2-Yr	0.61	171.62	171.9	1.28	36.02	46.19
Tributary 5	1609.33	Regional	15.6	170.42	171.52	2.17	58.6	127.14

HEC-RAS Reach ID	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Vel Chnl	Shear Chan	Power Chan
			(m ³ /s)	(m)	(m)	(m/s)	(N/m ²)	(N/m s)
Tributary 5	1609.33	350-Yr	7.14	170.42	171.3	1.75	41.59	72.59
Tributary 5	1609.33	100-Yr	5.3	170.42	171.21	1.64	38.26	62.73
Tributary 5	1609.33	50-Yr	4.45	170.42	171.18	1.53	34.09	52.26
Tributary 5	1609.33	25-Yr	3.43	170.42	171.11	1.43	30.85	44.1
Tributary 5	1609.33	10-Yr	2.42	170.42	171.04	1.28	25.86	32.99
Tributary 5	1609.33	5-Yr	1.81	170.42	170.99	1.1	20.09	22.18
Tributary 5	1609.33	2-Yr	0.61	170.42	170.82	0.68	9.08	6.15
Tributary 5	1549.9	Regional	15.6	169.97	170.88	2.87	113.26	324.5
Tributary 5	1549.9	350-Yr	7.14	169.97	170.71	2.34	82.72	193.39
Tributary 5	1549.9	100-Yr	5.3	169.97	170.66	2.07	66.9	138.79
Tributary 5	1549.9	50-Yr	4.45	169.97	170.64	1.99	62.42	123.91
Tributary 5	1549.9	25-Yr	3.43	169.97	170.6	1.79	52.01	93.13
Tributary 5	1549.9	10-Yr	2.42	169.97	170.57	1.54	39.5	60.81
Tributary 5	1549.9	5-Yr	1.81	169.97	170.53	1.48	37.39	55.16
Tributary 5	1549.9	2-Yr	0.61	169.97	170.44	1.05	20.91	21.99
Tributary 5	1511.86	Regional	15.6	169.32	170.25	2.74	95.58	261.47
Tributary 5	1511.86	350-Yr	7.14	169.32	170.02	2.13	64.63	137.58
Tributary 5	1511.86	100-Yr	5.3	169.32	169.94	1.94	56.17	109.08
Tributary 5	1511.86	50-Yr	4.45	169.32	169.86	2.05	66.02	135.41
Tributary 5	1511.86	25-Yr	3.43	169.32	169.83	1.75	49.28	86.29
Tributary 5	1511.86	10-Yr	2.42	169.32	169.75	1.67	48.08	80.06
Tributary 5	1511.86	5-Yr	1.81	169.32	169.69	1.54	43.9	67.74
Tributary 5	1511.86	2-Yr	0.61	169.32	169.54	1.16	31.3	36.38
Tributary 5	1414.39	Regional	15.6	166.83	168.02	3.02	108.53	327.62
Tributary 5	1414.39	350-Yr	7.14	166.83	167.8	2.34	70.78	165.88
Tributary 5	1414.39	100-Yr	5.3	166.83	167.73	2.13	60.19	128.21

HEC-RAS Reach ID	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Vel Chnl	Shear Chan	Power Chan
			(m ³ /s)	(m)	(m)	(m/s)	(N/m ²)	(N/m s)
Tributary 5	1414.39	50-Yr	4.45	166.83	167.66	2.19	65.36	142.84
Tributary 5	1414.39	25-Yr	3.43	166.83	167.61	1.93	52.34	101.1
Tributary 5	1414.39	10-Yr	2.42	166.83	167.47	1.98	59.64	118.27
Tributary 5	1414.39	5-Yr	1.81	166.83	167.39	1.84	54.31	100.05
Tributary 5	1414.39	2-Yr	0.61	166.83	167.18	1.44	41.93	60.51
Tributary 5	1376.38	Regional	15.6	166.11	167.48	2.8	90.06	251.84
Tributary 5	1376.38	350-Yr	7.14	166.11	167.16	2.33	69.17	160.93
Tributary 5	1376.38	100-Yr	5.3	166.11	167	2.29	71.82	164.74
Tributary 5	1376.38	50-Yr	4.45	166.11	166.94	2.17	66.39	144.3
Tributary 5	1376.38	25-Yr	3.43	166.11	166.84	2.1	65.95	138.61
Tributary 5	1376.38	10-Yr	2.42	166.11	166.73	1.92	59.5	114.46
Tributary 5	1376.38	5-Yr	1.81	166.11	166.64	1.81	56.6	102.54
Tributary 5	1376.38	2-Yr	0.61	166.11	166.48	1.13	26.34	29.68
Tributary 5	1352.59	Regional	15.6	165.72	167.39	1.66	28.82	47.72
Tributary 5	1352.59	350-Yr	7.14	165.72	166.74	2.41	73.46	177.23
Tributary 5	1352.59	100-Yr	5.3	165.72	166.62	2.35	73.05	171.72
Tributary 5	1352.59	50-Yr	4.45	165.72	166.51	2.5	86.82	217.21
Tributary 5	1352.59	25-Yr	3.43	165.72	166.48	2.07	60.52	125.48
Tributary 5	1352.59	10-Yr	2.42	165.72	166.38	1.95	56.92	111.02
Tributary 5	1352.59	5-Yr	1.81	165.72	166.29	1.87	55.3	103.18
Tributary 5	1352.59	2-Yr	0.61	165.72	166.06	1.41	40.07	56.7
Tributary 5	1331.52	Regional	15.6	165.11	167.41	0.78	5.75	4.5
Tributary 5	1331.52	350-Yr	7.14	165.11	166	2.31	71.39	164.94
Tributary 5	1331.52	100-Yr	5.3	165.11	165.91	2.12	62.89	133.61
Tributary 5	1331.52	50-Yr	4.45	165.11	165.87	2	56.78	113.38
Tributary 5	1331.52	25-Yr	3.43	165.11	165.76	2.06	64.45	132.84

HEC-RAS Reach ID	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Vel Chnl	Shear Chan	Power Chan
			(m ³ /s)	(m)	(m)	(m/s)	(N/m ²)	(N/m s)
Tributary 5	1331.52	10-Yr	2.42	165.11	165.69	1.78	50.47	89.95
Tributary 5	1331.52	5-Yr	1.81	165.11	165.6	1.77	53.85	95.52
Tributary 5	1331.52	2-Yr	0.61	165.11	165.41	1.3	36.73	47.67
Tributary 5	1287.96	Regional	15.6	163.62	167.41	0.47	1.73	0.81
Tributary 5	1287.96	350-Yr	7.14	163.62	165.48	0.88	8.04	7.1
Tributary 5	1287.96	100-Yr	5.3	163.62	165.11	0.98	10.84	10.66
Tributary 5	1287.96	50-Yr	4.45	163.62	164.93	1.04	12.84	13.39
Tributary 5	1287.96	25-Yr	3.43	163.62	164.69	1.13	16.43	18.63
Tributary 5	1287.96	10-Yr	2.42	163.62	164.43	1.25	22.58	28.31
Tributary 5	1287.96	5-Yr	1.81	163.62	164.15	1.8	56.9	102.4
Tributary 5	1287.96	2-Yr	0.61	163.62	163.94	1.38	40.18	55.6
Tributary 5	1277.9	Regional	15.6	163.41	167.39	0.72	5.76	4.16
Tributary 5	1277.9	350-Yr	7.14	163.41	165.47	0.75	7.88	5.93
Tributary 5	1277.9	100-Yr	5.3	163.41	165.11	0.72	7.82	5.67
Tributary 5	1277.9	50-Yr	4.45	163.41	164.93	0.7	7.7	5.42
Tributary 5	1277.9	25-Yr	3.43	163.41	164.7	0.67	7.36	4.91
Tributary 5	1277.9	10-Yr	2.42	163.41	164.44	0.61	6.76	4.15
Tributary 5	1277.9	5-Yr	1.81	163.41	164.15	0.69	9.8	6.79
Tributary 5	1277.9	2-Yr	0.61	163.41	163.8	0.53	6.57	3.46
Tributary 5	1254.38 don_208		Culvert					
Tributary 5	1226.7	Regional	15.6	162.36	163.95	3.37	132.64	447.44
Tributary 5	1226.7	350-Yr	7.14	162.36	163.76	1.84	41.57	76.43
Tributary 5	1226.7	100-Yr	5.3	162.36	163.65	1.54	30.12	46.28
Tributary 5	1226.7	50-Yr	4.45	162.36	163.53	1.47	28.63	42.04
Tributary 5	1226.7	25-Yr	3.43	162.36	163.39	1.37	26.52	36.34

HEC-RAS Reach ID	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Vel Chnl	Shear Chan	Power Chan
			(m ³ /s)	(m)	(m)	(m/s)	(N/m ²)	(N/m s)
Tributary 5	1226.7	10-Yr	2.42	162.36	163.23	1.24	23.51	29.12
Tributary 5	1226.7	5-Yr	1.81	162.36	163.11	1.16	21.55	25
Tributary 5	1226.7	2-Yr	0.61	162.36	162.79	0.89	14.61	13.04
Tributary 5	1210.95	Regional	15.6	162.13	163.91	2.8	87.14	243.63
Tributary 5	1210.95	350-Yr	7.14	162.13	163.51	2.48	75.76	187.54
Tributary 5	1210.95	100-Yr	5.3	162.13	163.21	2.72	101.57	276.01
Tributary 5	1210.95	50-Yr	4.45	162.13	163.13	2.58	95.33	246.15
Tributary 5	1210.95	25-Yr	3.43	162.13	163.01	2.38	85.87	204.47
Tributary 5	1210.95	10-Yr	2.42	162.13	162.88	2.16	76.89	166.21
Tributary 5	1210.95	5-Yr	1.81	162.13	162.8	1.98	67.81	134.14
Tributary 5	1210.95	2-Yr	0.61	162.13	162.54	1.53	47.39	72.39
Tributary 5	1165.77	Regional	15.6	161.12	162.42	3.29	125.87	413.85
Tributary 5	1165.77	350-Yr	7.14	161.12	162.15	2.47	77.61	191.74
Tributary 5	1165.77	100-Yr	5.3	161.12	162.07	2.21	63.95	141.17
Tributary 5	1165.77	50-Yr	4.45	161.12	161.99	2.22	67.08	149.18
Tributary 5	1165.77	25-Yr	3.43	161.12	161.9	2.12	63.71	135.25
Tributary 5	1165.77	10-Yr	2.42	161.12	161.83	1.84	49.8	91.48
Tributary 5	1165.77	5-Yr	1.81	161.12	161.74	1.73	46.59	80.59
Tributary 5	1165.77	2-Yr	0.61	161.12	161.52	1.12	23.94	26.85
Tributary 5	1121.99	Regional	15.6	160.53	161.31	3.7	191.16	707.19
Tributary 5	1121.99	350-Yr	7.14	160.53	161.14	2.49	95.69	238.41
Tributary 5	1121.99	100-Yr	5.3	160.53	161.06	2.31	86.75	200.31
Tributary 5	1121.99	50-Yr	4.45	160.53	161.04	2.12	74.53	157.86
Tributary 5	1121.99	25-Yr	3.43	160.53	161	1.93	64.49	124.59
Tributary 5	1121.99	10-Yr	2.42	160.53	160.94	1.77	57.15	100.88
Tributary 5	1121.99	5-Yr	1.81	160.53	160.82	2.13	99.16	211.11

HEC-RAS Reach ID	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Vel Chnl	Shear Chan	Power Chan
			(m ³ /s)	(m)	(m)	(m/s)	(N/m ²)	(N/m s)
Tributary 5	1121.99	2-Yr	0.61	160.53	160.71	1.44	51.41	74.02
Tributary 5	1083.39	Regional	15.6	159.12	160.53	3.27	120.55	393.63
Tributary 5	1083.39	350-Yr	7.14	159.12	160.15	2.59	85.33	221.02
Tributary 5	1083.39	100-Yr	5.3	159.12	160.04	2.36	73.91	174.13
Tributary 5	1083.39	50-Yr	4.45	159.12	159.97	2.26	70.24	158.88
Tributary 5	1083.39	25-Yr	3.43	159.12	159.89	2.05	60.14	123.44
Tributary 5	1083.39	10-Yr	2.42	159.12	159.76	1.98	60.41	119.45
Tributary 5	1083.39	5-Yr	1.81	159.12	159.66	1.9	60.22	114.48
Tributary 5	1083.39	2-Yr	0.61	159.12	159.46	1.26	32.51	40.92
Tributary 5	1055.79	Regional	15.6	158.59	159.55	3.35	150.86	505.76
Tributary 5	1055.79	350-Yr	7.14	158.59	159.4	2.41	83.27	200.34
Tributary 5	1055.79	100-Yr	5.3	158.59	159.35	2.23	73.93	165.06
Tributary 5	1055.79	50-Yr	4.45	158.59	159.32	2.12	67.87	144.03
Tributary 5	1055.79	25-Yr	3.43	158.59	159.3	1.82	50.73	92.46
Tributary 5	1055.79	10-Yr	2.42	158.59	159.24	1.68	44.9	75.61
Tributary 5	1055.79	5-Yr	1.81	158.59	159.2	1.59	41.36	65.78
Tributary 5	1055.79	2-Yr	0.61	158.59	159.04	1.35	34.65	46.71
Tributary 5	1024.1	Regional	15.6	157.68	159.14	1.41	22	30.99
Tributary 5	1024.1	350-Yr	7.14	157.68	158.81	1.11	14.96	16.57
Tributary 5	1024.1	100-Yr	5.3	157.68	158.72	1	12.63	12.65
Tributary 5	1024.1	50-Yr	4.45	157.68	158.66	0.93	11.1	10.3
Tributary 5	1024.1	25-Yr	3.43	157.68	158.59	0.84	9.36	7.87
Tributary 5	1024.1	10-Yr	2.42	157.68	158.51	0.73	7.41	5.44
Tributary 5	1024.1	5-Yr	1.81	157.68	158.45	0.66	6.2	4.1
Tributary 5	1024.1	2-Yr	0.61	157.68	158.23	0.46	3.4	1.55

HEC-RAS Reach ID	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Vel Chnl	Shear Chan	Power Chan
			(m ³ /s)	(m)	(m)	(m/s)	(N/m ²)	(N/m s)
Tributary 5	961.79	Regional	15.6	157.68	158.66	3.22	133.53	429.67
Tributary 5	961.79	350-Yr	7.14	157.68	158.5	2.13	62.52	133.14
Tributary 5	961.79	100-Yr	5.3	157.68	158.41	2.05	60.68	124.2
Tributary 5	961.79	50-Yr	4.45	157.68	158.38	1.87	51.51	96.41
Tributary 5	961.79	25-Yr	3.43	157.68	158.32	1.8	49.31	88.56
Tributary 5	961.79	10-Yr	2.42	157.68	158.26	1.61	41.4	66.65
Tributary 5	961.79	5-Yr	1.81	157.68	158.19	1.57	41.45	65.03
Tributary 5	961.79	2-Yr	0.61	157.68	157.99	1.33	37.94	50.52
Tributary 5	906.44	Regional	15.6	155.62	157.6	1.85	34.53	63.92
Tributary 5	906.44	350-Yr	7.14	155.62	157.15	1.24	17.18	21.39
Tributary 5	906.44	100-Yr	5.3	155.62	156.9	1.21	17.22	20.76
Tributary 5	906.44	50-Yr	4.45	155.62	156.67	1.39	24.67	34.28
Tributary 5	906.44	25-Yr	3.43	155.62	156.37	1.88	51.79	97.34
Tributary 5	906.44	10-Yr	2.42	155.62	156.23	1.88	57.09	107.58
Tributary 5	906.44	5-Yr	1.81	155.62	156.14	1.81	56.63	102.46
Tributary 5	906.44	2-Yr	0.61	155.62	155.93	1.39	40.83	56.81
Tributary 5	899.58	Regional	15.6	154.82	157.53	1.9	36.52	69.4
Tributary 5	899.58	350-Yr	7.14	154.82	157.12	1.17	14.74	17.22
Tributary 5	899.58	100-Yr	5.3	154.82	156.9	1.02	11.65	11.85
Tributary 5	899.58	50-Yr	4.45	154.82	156.67	1	11.8	11.79
Tributary 5	899.58	25-Yr	3.43	154.82	156.41	0.96	11.69	11.23
Tributary 5	899.58	10-Yr	2.42	154.82	156.13	0.9	11.27	10.13
Tributary 5	899.58	5-Yr	1.81	154.82	155.94	0.85	10.57	8.97
Tributary 5	899.58	2-Yr	0.61	154.82	155.49	0.63	6.64	4.17
Tributary 5	866.79 don 207		Culvert					

HEC-RAS Reach ID	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Vel Chnl	Shear Chan	Power Chan
			(m ³ /s)	(m)	(m)	(m/s)	(N/m ²)	(N/m s)
Tributary 5	850.18	Regional	15.6	152.44	154.06	3.94	161.72	636.4
Tributary 5	850.18	350-Yr	7.14	152.44	153.41	3.04	114.66	348.24
Tributary 5	850.18	100-Yr	5.3	152.44	153.25	2.74	99.83	273.83
Tributary 5	850.18	50-Yr	4.45	152.44	153.16	2.58	91.72	236.63
Tributary 5	850.18	25-Yr	3.43	152.44	153.05	2.37	82.3	195.28
Tributary 5	850.18	10-Yr	2.42	152.44	152.93	2.11	70.54	149.07
Tributary 5	850.18	5-Yr	1.81	152.44	152.86	1.91	61.27	116.92
Tributary 5	850.18	2-Yr	0.61	152.44	152.66	1.34	37.94	50.82
Tributary 5	829.32	Regional	15.6	151.91	153.04	2.98	107.73	321.17
Tributary 5	829.32	350-Yr	7.14	151.91	152.63	2.38	81.6	194.08
Tributary 5	829.32	100-Yr	5.3	151.91	152.52	2.16	71.95	155.57
Tributary 5	829.32	50-Yr	4.45	151.91	152.47	2.06	68.19	140.58
Tributary 5	829.32	25-Yr	3.43	151.91	152.39	1.9	61.47	116.81
Tributary 5	829.32	10-Yr	2.42	151.91	152.31	1.72	53.62	92.38
Tributary 5	829.32	5-Yr	1.81	151.91	152.25	1.59	48.23	76.84
Tributary 5	829.32	2-Yr	0.61	151.91	152.1	1.19	32.6	38.66
Tributary 5	780.83	Regional	15.6	150.81	152.21	2.03	47.87	96.94
Tributary 5	780.83	350-Yr	7.14	150.81	151.65	2.04	59.87	121.94
Tributary 5	780.83	100-Yr	5.3	150.81	151.52	1.95	58.62	114.23
Tributary 5	780.83	50-Yr	4.45	150.81	151.46	1.86	55.61	103.64
Tributary 5	780.83	25-Yr	3.43	150.81	151.39	1.72	50.05	86.17
Tributary 5	780.83	10-Yr	2.42	150.81	151.3	1.56	42.92	66.78
Tributary 5	780.83	5-Yr	1.81	150.81	151.25	1.41	36.53	51.47
Tributary 5	780.83	2-Yr	0.61	150.81	151.08	0.96	19.41	18.56
Tributary 5	770.98	Regional	15.6	150.66	151.9	2.93	101.19	296.69
Tributary 5	770.98	350-Yr	7.14	150.66	151.44	2.44	84.14	205.32

HEC-RAS Reach ID	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Vel Chnl	Shear Chan	Power Chan
			(m ³ /s)	(m)	(m)	(m/s)	(N/m ²)	(N/m s)
Tributary 5	770.98	100-Yr	5.3	150.66	151.32	2.22	74.43	165.34
Tributary 5	770.98	50-Yr	4.45	150.66	151.27	2.11	69.6	146.6
Tributary 5	770.98	25-Yr	3.43	150.66	151.19	1.94	62.46	121.1
Tributary 5	770.98	10-Yr	2.42	150.66	151.11	1.74	54.36	94.53
Tributary 5	770.98	5-Yr	1.81	150.66	151.06	1.59	48.28	76.85
Tributary 5	770.98	2-Yr	0.61	150.66	150.9	1.21	33.52	40.66
Tributary 5	765.85	Regional	15.6	150.27	151.37	2.56	82.84	212.15
Tributary 5	765.85	350-Yr	7.14	150.27	151.14	1.93	52.05	100.63
Tributary 5	765.85	100-Yr	5.3	150.27	151.04	1.84	49.89	91.91
Tributary 5	765.85	50-Yr	4.45	150.27	150.97	1.88	54.12	101.5
Tributary 5	765.85	25-Yr	3.43	150.27	150.86	1.91	60.77	115.86
Tributary 5	765.85	10-Yr	2.42	150.27	150.77	1.73	53.93	93.4
Tributary 5	765.85	5-Yr	1.81	150.27	150.71	1.6	48.65	77.97
Tributary 5	765.85	2-Yr	0.61	150.27	150.55	1.23	33.9	41.63
Tributary 5	758.01	Regional	15.6	149.96	151.08	2.45	77.29	189.02
Tributary 5	758.01	350-Yr	7.14	149.96	150.83	1.96	55.81	109.48
Tributary 5	758.01	100-Yr	5.3	149.96	150.74	1.83	51.21	93.7
Tributary 5	758.01	50-Yr	4.45	149.96	150.68	1.83	53.09	97.32
Tributary 5	758.01	25-Yr	3.43	149.96	150.56	1.95	63.33	123.36
Tributary 5	758.01	10-Yr	2.42	149.96	150.46	1.8	56.83	102.04
Tributary 5	758.01	5-Yr	1.81	149.96	150.39	1.67	51.56	86.14
Tributary 5	758.01	2-Yr	0.61	149.96	150.22	1.27	35.54	45.09
Tributary 5	742.32	Regional	15.6	149.52	150.6	2.48	78.09	193.57
Tributary 5	742.32	350-Yr	7.14	149.52	150.25	2.25	76.24	171.18
Tributary 5	742.32	100-Yr	5.3	149.52	150.15	2.05	67.13	137.35
Tributary 5	742.32	50-Yr	4.45	149.52	150.09	1.97	63.77	125.34

HEC-RAS Reach ID	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Vel Chnl	Shear Chan	Power Chan
			(m ³ /s)	(m)	(m)	(m/s)	(N/m ²)	(N/m s)
Tributary 5	742.32	25-Yr	3.43	149.52	150.02	1.84	58.67	108.23
Tributary 5	742.32	10-Yr	2.42	149.52	149.94	1.68	51.67	86.9
Tributary 5	742.32	5-Yr	1.81	149.52	149.88	1.56	46.87	73.2
Tributary 5	742.32	2-Yr	0.61	149.52	149.73	1.2	33.87	40.73
Tributary 5	731.07	Regional	15.6	148.38	149.76	3.15	114.96	362.46
Tributary 5	731.07	350-Yr	7.14	148.38	149.28	2.55	89.2	227.06
Tributary 5	731.07	100-Yr	5.3	148.38	149.15	2.34	80.55	188.3
Tributary 5	731.07	50-Yr	4.45	148.38	149.09	2.2	74.29	163.7
Tributary 5	731.07	25-Yr	3.43	148.38	149.01	2.05	68.48	140.43
Tributary 5	731.07	10-Yr	2.42	148.38	148.92	1.84	59.29	109.27
Tributary 5	731.07	5-Yr	1.81	148.38	148.85	1.71	53.2	90.93
Tributary 5	731.07	2-Yr	0.61	148.38	148.66	1.31	37.05	48.46
Tributary 5	678.19	Regional	15.6	146.2	147.82	3.35	127.47	426.55
Tributary 5	678.19	350-Yr	7.14	146.2	147.42	2.32	69.7	161.99
Tributary 5	678.19	100-Yr	5.3	146.2	147.27	2.07	58.8	121.95
Tributary 5	678.19	50-Yr	4.45	146.2	147.2	1.94	53.15	103.02
Tributary 5	678.19	25-Yr	3.43	146.2	147.11	1.74	44.9	78.07
Tributary 5	678.19	10-Yr	2.42	146.2	147	1.51	36.4	55.07
Tributary 5	678.19	5-Yr	1.81	146.2	146.92	1.36	30.92	42.18
Tributary 5	678.19	2-Yr	0.61	146.2	146.69	0.93	16.76	15.62
Tributary 5	668.94	Regional	15.6	146.2	147.74	3.21	117.7	377.34
Tributary 5	668.94	350-Yr	7.14	146.2	147.21	2.67	97.67	260.69
Tributary 5	668.94	100-Yr	5.3	146.2	147.07	2.44	87.7	214.36
Tributary 5	668.94	50-Yr	4.45	146.2	147	2.31	81.47	188.23
Tributary 5	668.94	25-Yr	3.43	146.2	146.91	2.14	74.03	158.2
Tributary 5	668.94	10-Yr	2.42	146.2	146.8	1.95	65.16	126.85

HEC-RAS Reach ID	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Vel Chnl	Shear Chan	Power Chan
			(m ³ /s)	(m)	(m)	(m/s)	(N/m ²)	(N/m s)
Tributary 5	668.94	5-Yr	1.81	146.2	146.73	1.82	59.32	107.74
Tributary 5	668.94	2-Yr	0.61	146.2	146.52	1.37	40.57	55.71
Tributary 5	635.32	Regional	15.6	145.55	146.87	3.24	121.51	393.78
Tributary 5	635.32	350-Yr	7.14	145.55	146.41	2.56	89.87	230.48
Tributary 5	635.32	100-Yr	5.3	145.55	146.28	2.34	79.77	186.56
Tributary 5	635.32	50-Yr	4.45	145.55	146.22	2.23	75.21	167.41
Tributary 5	635.32	25-Yr	3.43	145.55	146.14	2.04	67.14	137.25
Tributary 5	635.32	10-Yr	2.42	145.55	146.04	1.84	58.97	108.66
Tributary 5	635.32	5-Yr	1.81	145.55	145.98	1.69	52.51	88.77
Tributary 5	635.32	2-Yr	0.61	145.55	145.81	1.19	30.75	36.66
Tributary 5	608.05	Regional	15.6	145.11	146.29	3.12	116.74	364.55
Tributary 5	608.05	350-Yr	7.14	145.11	145.92	2.25	70.07	157.74
Tributary 5	608.05	100-Yr	5.3	145.11	145.83	1.9	52.29	99.54
Tributary 5	608.05	50-Yr	4.45	145.11	145.78	1.75	45.73	80.19
Tributary 5	608.05	25-Yr	3.43	145.11	145.72	1.54	36.83	56.74
Tributary 5	608.05	10-Yr	2.42	145.11	145.63	1.33	29.2	38.76
Tributary 5	608.05	5-Yr	1.81	145.11	145.56	1.18	24.09	28.35
Tributary 5	608.05	2-Yr	0.61	145.11	145.38	0.78	12.65	9.9
Tributary 5	591.33	Regional	15.6	144.92	146.15	2.65	83.78	222.09
Tributary 5	591.33	350-Yr	7.14	144.92	145.7	2.33	78.19	182.47
Tributary 5	591.33	100-Yr	5.3	144.92	145.58	2.16	72.13	156.08
Tributary 5	591.33	50-Yr	4.45	144.92	145.53	2.04	66.65	136.05
Tributary 5	591.33	25-Yr	3.43	144.92	145.45	1.93	62.88	121.1
Tributary 5	591.33	10-Yr	2.42	144.92	145.37	1.71	53.3	91.38
Tributary 5	591.33	5-Yr	1.81	144.92	145.31	1.58	47.95	75.96
Tributary 5	591.33	2-Yr	0.61	144.92	145.14	1.22	33.84	41.41

HEC-RAS Reach ID	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Vel Chnl	Shear Chan	Power Chan
			(m ³ /s)	(m)	(m)	(m/s)	(N/m ²)	(N/m s)
Tributary 5	568.53	Regional	15.6	144.23	145.73	2.14	51.41	109.83
Tributary 5	568.53	350-Yr	7.14	144.23	145.45	1.35	22.32	30.13
Tributary 5	568.53	100-Yr	5.3	144.23	145.27	1.24	20.25	25.17
Tributary 5	568.53	50-Yr	4.45	144.23	145.17	1.19	19.52	23.31
Tributary 5	568.53	25-Yr	3.43	144.23	145.04	1.14	18.92	21.51
Tributary 5	568.53	10-Yr	2.42	144.23	144.89	1.08	18.49	19.92
Tributary 5	568.53	5-Yr	1.81	144.23	144.79	1.04	18.32	19.07
Tributary 5	568.53	2-Yr	0.61	144.23	144.53	0.86	14.95	12.83
Tributary 5	560.18	Regional	15.6	144.11	145.61	2.88	91.66	263.98
Tributary 5	560.18	350-Yr	7.14	144.11	145.13	2.73	95.08	259.96
Tributary 5	560.18	100-Yr	5.3	144.11	144.98	2.5	84.14	210.31
Tributary 5	560.18	50-Yr	4.45	144.11	144.89	2.44	83.55	203.54
Tributary 5	560.18	25-Yr	3.43	144.11	144.78	2.26	75.81	171.09
Tributary 5	560.18	10-Yr	2.42	144.11	144.66	2.06	68.34	140.65
Tributary 5	560.18	5-Yr	1.81	144.11	144.58	1.89	61.69	116.66
Tributary 5	560.18	2-Yr	0.61	144.11	144.37	1.38	40.25	55.6
Tributary 5	553.18	Regional	15.6	143.41	144.67	2.92	100.49	293.93
Tributary 5	553.18	350-Yr	7.14	143.41	144.31	2.3	70.78	162.81
Tributary 5	553.18	100-Yr	5.3	143.41	144.16	2.26	73.62	166.25
Tributary 5	553.18	50-Yr	4.45	143.41	144.09	2.2	73.18	161.05
Tributary 5	553.18	25-Yr	3.43	143.41	144	2.03	65.55	132.75
Tributary 5	553.18	10-Yr	2.42	143.41	143.91	1.84	59.06	108.88
Tributary 5	553.18	5-Yr	1.81	143.41	143.84	1.69	52.31	88.22
Tributary 5	553.18	2-Yr	0.61	143.41	143.66	1.28	36.04	46.24
Tributary 5	537.08	Regional	15.6	140.25	141.44	2.83	106.58	301.69

HEC-RAS Reach ID	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Vel Chnl	Shear Chan	Power Chan
			(m ³ /s)	(m)	(m)	(m/s)	(N/m ²)	(N/m s)
Tributary 5	537.08	350-Yr	7.14	140.25	141.09	2.25	77	172.9
Tributary 5	537.08	100-Yr	5.3	140.25	140.98	2.08	70	145.87
Tributary 5	537.08	50-Yr	4.45	140.25	140.93	1.99	66.01	131.63
Tributary 5	537.08	25-Yr	3.43	140.25	140.86	1.87	60.36	112.61
Tributary 5	537.08	10-Yr	2.42	140.25	140.78	1.7	53.22	90.47
Tributary 5	537.08	5-Yr	1.81	140.25	140.72	1.59	48.38	76.75
Tributary 5	537.08	2-Yr	0.61	140.25	140.54	1.27	35.85	45.52
Tributary 5	485.91	Regional	15.6	138.79	139.98	2.91	109.9	319.98
Tributary 5	485.91	350-Yr	7.14	138.79	139.61	2.31	80.39	185.68
Tributary 5	485.91	100-Yr	5.3	138.79	139.51	2.12	71.2	151.15
Tributary 5	485.91	50-Yr	4.45	138.79	139.45	2.04	67.5	137.54
Tributary 5	485.91	25-Yr	3.43	138.79	139.37	1.93	63.15	121.74
Tributary 5	485.91	10-Yr	2.42	138.79	139.28	1.76	55.38	97.34
Tributary 5	485.91	5-Yr	1.81	138.79	139.22	1.63	49.79	81.12
Tributary 5	485.91	2-Yr	0.61	138.79	139.04	1.27	35.48	44.99
Tributary 5	439.87	Regional	15.6	137.46	138.77	3.25	120.36	391.09
Tributary 5	439.87	350-Yr	7.14	137.46	138.33	2.58	88.27	227.47
Tributary 5	439.87	100-Yr	5.3	137.46	138.2	2.35	77.94	183.11
Tributary 5	439.87	50-Yr	4.45	137.46	138.13	2.26	75.08	169.58
Tributary 5	439.87	25-Yr	3.43	137.46	138.05	2.08	67.47	140.49
Tributary 5	439.87	10-Yr	2.42	137.46	137.95	1.88	59.17	110.95
Tributary 5	439.87	5-Yr	1.81	137.46	137.88	1.73	53.83	93.04
Tributary 5	439.87	2-Yr	0.61	137.46	137.71	1.25	34.69	43.27
Tributary 5	393.95	Regional	15.6	136.01	137.13	2.88	107.04	308.19
Tributary 5	393.95	350-Yr	7.14	136.01	136.78	2.25	76.85	172.74
Tributary 5	393.95	100-Yr	5.3	136.01	136.68	2.07	68.63	141.79

HEC-RAS Reach ID	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Vel Chnl	Shear Chan	Power Chan
			(m ³ /s)	(m)	(m)	(m/s)	(N/m ²)	(N/m s)
Tributary 5	393.95	50-Yr	4.45	136.01	136.63	1.98	65.08	128.76
Tributary 5	393.95	25-Yr	3.43	136.01	136.56	1.82	57.79	105.34
Tributary 5	393.95	10-Yr	2.42	136.01	136.48	1.67	51.81	86.41
Tributary 5	393.95	5-Yr	1.81	136.01	136.43	1.54	46.32	71.26
Tributary 5	393.95	2-Yr	0.61	136.01	136.27	1.23	34.05	41.86
Tributary 5	341.39	Regional	22.73	134.18	135.38	2.96	109.78	324.49
Tributary 5	341.39	350-Yr	10.45	134.18	134.99	2.35	81.73	191.79
Tributary 5	341.39	100-Yr	7.81	134.18	134.88	2.18	73.91	160.95
Tributary 5	341.39	50-Yr	6.58	134.18	134.83	2.07	68.78	142.68
Tributary 5	341.39	25-Yr	5.09	134.18	134.75	1.95	63.98	125.05
Tributary 5	341.39	10-Yr	3.53	134.18	134.65	1.77	55.93	98.92
Tributary 5	341.39	5-Yr	2.66	134.18	134.6	1.61	48.73	78.4
Tributary 5	341.39	2-Yr	0.87	134.18	134.45	1.16	31.3	36.16
Tributary 5	301.39	Regional	22.73	133.11	134.64	3.34	130.06	434.59
Tributary 5	301.39	350-Yr	10.45	133.11	134.14	2.66	97.1	258.27
Tributary 5	301.39	100-Yr	7.81	133.11	134	2.48	89	220.76
Tributary 5	301.39	50-Yr	6.58	133.11	133.93	2.36	82.7	194.9
Tributary 5	301.39	25-Yr	5.09	133.11	133.82	2.21	75.57	166.77
Tributary 5	301.39	10-Yr	3.53	133.11	133.7	2.02	66.81	134.75
Tributary 5	301.39	5-Yr	2.66	133.11	133.62	1.88	60.68	114.03
Tributary 5	301.39	2-Yr	0.87	133.11	133.4	1.35	37.41	50.47
Tributary 5	244.77	Regional	22.73	132	134.52	1.44	19.52	28.06
Tributary 5	244.77	350-Yr	10.45	132	132.89	2.59	94.37	244.4
Tributary 5	244.77	100-Yr	7.81	132	132.76	2.39	84.19	200.99
Tributary 5	244.77	50-Yr	6.58	132	132.69	2.28	79	179.96
Tributary 5	244.77	25-Yr	5.09	132	132.6	2.12	71.55	151.66

HEC-RAS Reach ID	River Sta	Profile	Q Total	Min Ch El	W.S. Elev	Vel Chnl	Shear Chan	Power Chan
			(m ³ /s)	(m)	(m)	(m/s)	(N/m ²)	(N/m s)
Tributary 5	244.77	10-Yr	3.53	132	132.49	1.91	62.09	118.61
Tributary 5	244.77	5-Yr	2.66	132	132.43	1.76	55.77	98.4
Tributary 5	244.77	2-Yr	0.87	132	132.24	1.27	35.53	45.21
Tributary 5	146.47	Regional	22.73	129.49	134.58	0.32	0.74	0.24
Tributary 5	146.47	350-Yr	10.45	129.49	131.13	0.83	7.55	6.3
Tributary 5	146.47	100-Yr	7.81	129.49	130.16	2.13	71.3	151.7
Tributary 5	146.47	50-Yr	6.58	129.49	130.11	2.02	66.16	133.55
Tributary 5	146.47	25-Yr	5.09	129.49	130.03	1.89	61.07	115.71
Tributary 5	146.47	10-Yr	3.53	129.49	129.95	1.71	53.38	91.44
Tributary 5	146.47	5-Yr	2.66	129.49	129.89	1.58	47.87	75.63
Tributary 5	146.47	2-Yr	0.87	129.49	129.75	1.12	29.89	33.55
Tributary 5	28.37	Regional	22.73	127.26	134.58	0.06	0.02	0
Tributary 5	28.37	350-Yr	10.45	127.26	131.16	0.07	0.04	0
Tributary 5	28.37	100-Yr	7.81	127.26	130.19	0.09	0.08	0.01
Tributary 5	28.37	50-Yr	6.58	127.26	129.94	0.1	0.08	0.01
Tributary 5	28.37	25-Yr	5.09	127.26	129.67	0.09	0.09	0.01
Tributary 5	28.37	10-Yr	3.53	127.26	129.29	0.1	0.1	0.01
Tributary 5	28.37	5-Yr	2.66	127.26	128.96	0.12	0.17	0.02
Tributary 5	28.37	2-Yr	0.87	127.26	128.34	0.09	0.1	0.01