

# Exhibit 4.4.2 H&H

## Right and Left Overbank Flows and Velocities

HEC-RAS Plan: Maintenance River: Bushkill Reach: Main

Reach	River Sta	Profile	W.S. Elev (ft)	Q Left (cfs)	Q Channel (cfs)	Q Right (cfs)	Vel Left (ft/s)	Vel Chnl (ft/s)	Vel Right (ft/s)	Hydr Depth L (ft)	Hydr Depth C (ft)	Hydr Depth R (ft)
Main	21	10-yr	362.87	118.85	4928.79	231.36	1.07	7.15	2.39	0.77	4.25	2.89
Main	21	25-yr	363.89	466.73	6768.26	358.01	1.34	7.91	1.89	1.21	5.27	0.87
Main	21	50-yr	364.38	849.90	8568.02	421.07	1.70	9.16	1.36	1.50	5.76	1.14
Main	21	100-yr	364.98	1432.71	10337.92	859.37	2.01	10.01	1.81	1.96	6.36	1.70
Main	20	10-yr	361.69	1650.33	3560.59	68.09	2.75	7.85	1.08	2.05	4.13	0.70
Main	20	25-yr	362.53	2142.25	5181.41	269.34	2.26	9.48	1.70	1.99	4.98	1.30
Main	20	50-yr	363.17	3263.56	6106.29	469.15	2.60	9.90	1.94	2.60	5.62	1.60
Main	20	100-yr	363.87	4646.82	7197.17	786.02	2.92	10.39	2.21	3.23	6.31	2.13
Main	19	10-yr	360.43	460.30	4818.60	0.10	1.20	7.01	0.36	1.05	4.83	0.20
Main	19	25-yr	361.42	1218.35	6371.93	2.72	1.41	7.70	0.75	1.56	5.81	0.62
Main	19	50-yr	361.95	2079.09	7753.25	6.67	1.80	8.58	0.86	2.08	6.35	0.70
Main	19	100-yr	362.55	3265.67	9340.24	24.09	2.19	9.45	0.86	2.65	6.95	0.66
Main	18	10-yr	359.08	1109.07	4166.01	3.92	2.04	8.68	0.79	1.58	4.48	0.43
Main	18	25-yr	359.86	1867.09	5690.33	35.58	2.13	10.09	1.24	1.75	5.26	0.78
Main	18	50-yr	360.58	3086.04	6657.36	95.60	2.48	10.38	1.54	2.40	5.98	1.18
Main	18	100-yr	361.38	4655.83	7763.16	211.01	2.80	10.68	2.04	3.12	6.77	1.98
Main	17	10-yr	358.06	776.59	4501.20	1.21	1.83	8.28	0.81	1.21	4.03	0.44
Main	17	25-yr	359.14	1705.38	5872.74	14.88	1.95	8.53	1.06	1.91	5.11	0.80
Main	17	50-yr	359.93	2745.18	7051.04	42.78	2.19	8.87	1.53	2.48	5.90	1.59
Main	17	100-yr	360.80	4192.11	8357.02	80.88	2.45	9.16	1.88	3.22	6.77	2.46
Main	16	10-yr	357.74	594.30	4678.60	6.10	1.26	6.68	0.63	1.47	5.29	0.55
Main	16	25-yr	358.83	1391.07	6159.50	42.43	1.65	7.29	1.11	2.34	6.38	1.39
Main	16	50-yr	359.57	2205.92	7546.38	86.70	1.98	8.01	1.48	2.98	7.12	2.13
Main	16	100-yr	360.38	3294.06	9188.00	147.94	2.31	8.76	1.83	3.61	7.92	2.94
Main	15	10-yr	356.85	381.92	4887.10	9.98	1.35	8.63	0.64	1.10	5.27	0.37
Main	15	25-yr	357.43	830.66	6706.75	55.59	1.83	10.67	1.38	1.39	5.85	0.95
Main	15	50-yr	358.17	1632.58	8064.89	141.53	2.32	11.40	1.98	2.05	6.59	1.68
Main	15	100-yr	358.84	2659.56	9719.65	250.79	2.84	12.47	2.51	2.69	7.26	2.35
Main	14	10-yr	356.90	1510.09	3759.35	9.56	1.21	6.32	0.63	1.49	5.54	0.59
Main	14	25-yr	357.31	2553.88	5012.71	26.41	1.59	7.85	0.95	1.76	5.95	0.86

HEC-RAS Plan: Maintenance River: Bushkill Reach: Main (Continued)

Reach	River Sta	Profile	W.S. Elev (ft)	Q Left (cfs)	Q Channel (cfs)	Q Right (cfs)	Vel Left (ft/s)	Vel Chnl (ft/s)	Vel Right (ft/s)	Hydr Depth L (ft)	Hydr Depth C (ft)	Hydr Depth R (ft)
Main	14	50-yr	358.24	4271.70	5491.51	75.79	1.72	7.44	1.31	2.63	6.88	1.79
Main	14	100-yr	359.02	6261.57	6238.65	129.79	1.95	7.59	1.56	3.41	7.66	2.57
Main	13	10-yr	355.36	515.56	4763.41	0.03	1.48	9.89	0.42	0.70	4.22	0.14
Main	13	25-yr	356.88	2513.58	5077.02	2.40	1.56	7.74	0.87	1.76	5.70	0.83
Main	13	50-yr	358.00	4468.41	5362.93	7.66	1.69	6.83	0.87	2.88	6.83	1.17
Main	13	100-yr	358.79	6429.09	6184.55	16.36	1.91	7.06	1.11	3.67	7.62	1.97
Main	12	10-yr	353.96	583.49	4695.50	0.01	2.85	10.36	0.30	1.79	3.71	0.06
Main	12	25-yr	354.87	1020.87	6569.40	2.73	3.11	11.62	1.26	2.10	4.63	0.59
Main	12	50-yr	355.75	1518.02	8309.64	11.34	2.86	12.36	1.81	1.28	5.50	1.12
Main	12	100-yr	357.25	3082.67	9513.88	33.45	2.19	11.12	2.01	1.97	7.00	2.00
Main	11	10-yr	353.13	94.67	5184.16	0.17	1.59	8.15	0.58	1.12	3.93	0.30
Main	11	25-yr	354.64	340.70	7248.24	4.06	1.71	8.23	1.10	1.49	5.44	1.06
Main	11	50-yr	355.89	707.57	9119.05	12.38	1.73	8.43	1.33	2.03	6.68	1.69
Main	11	100-yr	357.11	1401.73	11202.13	26.14	1.98	8.75	1.52	2.29	7.91	2.31
Main	10	10-yr	352.79		5279.00			8.10			4.28	
Main	10	25-yr	354.20	2.79	7589.31	0.90	0.80	8.72	0.78	0.54	5.62	0.63
Main	10	50-yr	355.27	23.25	9811.31	4.44	1.03	9.48	1.13	0.67	6.69	1.14
Main	10	100-yr	356.12	97.58	12521.64	10.78	1.22	10.74	1.46	0.95	7.54	1.55
Main	9	10-yr	352.90	1.46	5277.54		0.51	6.37		0.41	5.26	
Main	9	25-yr	354.32	24.25	7565.68	3.08	0.81	7.19	0.79	0.86	6.68	0.89
Main	9	50-yr	355.42	94.35	9733.65	11.00	1.31	7.94	1.14	1.79	7.78	1.57
Main	9	100-yr	356.32	192.04	12414.98	22.98	1.75	9.08	1.45	2.53	8.68	2.09
Main	8	10-yr	352.89	0.00	5279.00	0.00	0.04	4.34	0.08	0.03	6.50	0.07
Main	8	25-yr	354.34	0.25	7591.98	0.77	0.32	5.10	0.43	0.76	7.96	0.80
Main	8	50-yr	355.46	1.15	9834.57	3.28	0.49	5.80	0.64	1.32	9.07	1.37
Main	8	100-yr	356.38	2.78	12619.49	7.73	0.65	6.75	0.84	1.78	9.99	1.82
Main	7.5		Bridge									
Main	7	10-yr	352.27	0.00	5279.00		0.06	4.27		0.07	6.44	
Main	7	25-yr	353.68	0.27	7592.42	0.31	0.33	5.04	0.35	0.78	7.85	0.70

HEC-RAS Plan: Maintenance River: Bushkill Reach: Main (Continued)

Reach	River Sta	Profile	W.S. Elev (ft)	Q Left (cfs)	Q Channel (cfs)	Q Right (cfs)	Vel Left (ft/s)	Vel Chnl (ft/s)	Vel Right (ft/s)	Hydr Depth L (ft)	Hydr Depth C (ft)	Hydr Depth R (ft)
Main	7	50-yr	354.76	1.17	9836.35	1.48	0.49	5.74	0.53	1.32	8.93	1.24
Main	7	100-yr	355.63	2.76	12623.64	3.61	0.65	6.72	0.70	1.75	9.80	1.62
Main	6	10-yr	352.19	0.33	5277.34	1.33	0.35	4.47	0.35	0.60	6.27	0.48
Main	6	25-yr	353.60	2.67	7574.94	15.39	0.61	5.24	0.57	1.30	7.67	0.96
Main	6	50-yr	354.67	7.00	9775.32	56.68	0.79	5.93	0.90	1.83	8.75	1.82
Main	6	100-yr	355.53	13.24	12500.60	116.16	0.97	6.91	1.25	2.13	9.60	2.67
Main	5	10-yr	351.79		5279.00			6.25			5.64	
Main	5	25-yr	353.07	0.08	7590.56	2.36	0.34	7.32	0.58	0.37	6.87	0.52
Main	5	50-yr	353.99	0.73	9824.07	14.20	0.62	8.35	0.99	0.83	7.79	1.09
Main	5	100-yr	354.50	1.72	12598.72	29.56	0.86	10.05	1.38	1.08	8.30	1.45
Main	4	10-yr	351.70	6.22	5241.96	30.82	0.99	5.78	1.11	1.38	5.99	1.44
Main	4	25-yr	352.99	17.80	7487.70	87.50	1.33	6.80	1.48	2.07	7.28	2.11
Main	4	50-yr	353.93	32.40	9643.36	163.24	1.61	7.76	1.89	2.57	8.22	2.83
Main	4	100-yr	354.43	48.24	12339.81	241.96	1.99	9.36	2.37	2.85	8.72	3.19
Main	3	10-yr	351.20	2.93	4940.14	335.93	0.99	6.55	2.08	1.26	5.22	2.66
Main	3	25-yr	352.52	8.63	7002.73	581.65	1.28	7.41	1.73	2.02	6.54	2.08
Main	3	50-yr	353.56	15.41	8715.27	1108.33	1.45	7.96	2.19	2.59	7.58	3.12
Main	3	100-yr	353.93	21.69	11045.46	1562.85	1.78	9.61	2.76	2.79	7.95	3.50
Main	2	10-yr	351.14	1745.26	3506.60	27.14	1.88	3.91	1.00	5.38	5.71	2.13
Main	2	25-yr	352.55	2535.77	4994.84	62.39	2.17	4.47	1.38	6.79	7.12	3.54
Main	2	50-yr	353.73	2967.86	5780.51	1090.64	2.16	4.44	1.61	7.97	8.29	5.18
Main	2	100-yr	354.20	3796.49	7367.25	1466.27	2.61	5.35	1.99	8.44	8.77	5.66
Main	1	10-yr	350.23	359.38	4893.22	26.40	2.38	6.42	1.47	3.47	5.37	1.76
Main	1	25-yr	351.50	561.32	6970.57	61.11	2.54	7.39	1.67	3.81	6.64	2.08
Main	1	50-yr	352.53	838.48	8880.68	119.85	2.98	8.15	2.18	4.85	7.68	3.12
Main	1	100-yr	353.57	896.23	8490.48	3243.29	2.63	6.86	3.01	5.89	8.71	7.18