

Appendix A: Hydrologic Assessment Results

APPENDIX A: Hydrologic Assessment Results

Table A-1: Annual and Monthly Flow Statistics for Monatiquot River and East Branch Neponset River Gages

Month	River	Period of Record	Flow (cfs)				Flow per Drainage Area (cfs/mi ²)				Regression R ² Value
			Min	Max	Mean	Median	Min	Max	Mean	Median	
JAN	Monatiquot	3/31/06 - 5/6/08	18	79	44	48	0.63	2.75	1.53	1.67	0.71
	E. Br. Neponset	3/31/06 - 5/6/08	32	129	61	56	1.10	4.49	2.12	1.97	
		10/1/52 - 5/6/08	8	676	72	58	0.26	23.57	2.52	2.02	
FEB	Monatiquot	3/31/06 - 5/6/08	7	326	79	70	0.24	11.36	2.75	2.44	0.75
	E. Br. Neponset	3/31/06 - 5/6/08	19	461	92	78	0.66	16.07	3.21	2.72	
		10/1/52 - 5/6/08	9	461	76	64	0.32	16.07	2.66	2.24	
MAR	Monatiquot	3/31/06 - 5/6/08	15	308	106	93	0.52	10.73	3.68	3.24	0.65
	E. Br. Neponset	3/31/06 - 5/6/08	26	351	116	108	0.92	12.24	4.04	3.75	
		10/1/52 - 5/6/08	18	862	99	82	0.63	30.04	3.46	2.87	
APR	Monatiquot	3/31/06 - 5/6/08	11	384	70	42	0.38	13.38	2.45	1.46	0.89
	E. Br. Neponset	3/31/06 - 5/6/08	18	460	84	57	0.63	16.03	2.93	1.99	
		10/1/52 - 5/6/08	16	544	95	79	0.55	18.97	3.30	2.76	
MAY	Monatiquot	3/31/06 - 5/6/08	12	448	89	59	0.42	15.61	3.10	2.04	0.88
	E. Br. Neponset	3/31/06 - 5/6/08	17	395	89	64	0.59	13.75	3.11	2.22	
		10/1/52 - 5/6/08	9	395	59	47	0.31	13.75	2.05	1.65	
JUN	Monatiquot	3/31/06 - 5/6/08	5	537	105	47	0.18	18.71	3.67	1.64	0.83
	E. Br. Neponset	3/31/06 - 5/6/08	18	651	112	53	0.63	22.68	3.91	1.84	
		10/1/52 - 5/6/08	3	934	43	25	0.10	32.54	1.50	0.88	
JUL	Monatiquot	3/31/06 - 5/6/08	1	156	32	13	0.04	5.44	1.11	0.45	0.89
	E. Br. Neponset	3/31/06 - 5/6/08	9	148	35	28	0.32	5.15	1.21	0.97	
		10/1/52 - 5/6/08	1	388	21	14	0.02	13.53	0.73	0.48	
AUG	Monatiquot	3/31/06 - 5/6/08	1	31	8	4	0.02	1.08	0.26	0.13	0.81
	E. Br. Neponset	3/31/06 - 5/6/08	5	64	18	18	0.19	2.24	0.63	0.63	
		10/1/52 - 5/6/08	1	1435	22	12	0.02	50.00	0.78	0.40	
SEP	Monatiquot	3/31/06 - 5/6/08	0	19	6	3	0.02	0.66	0.19	0.12	0.25
	E. Br. Neponset	3/31/06 - 5/6/08	5	66	14	13	0.17	2.32	0.50	0.44	
		10/1/52 - 5/6/08	1	383	23	13	0.02	13.35	0.79	0.44	
OCT	Monatiquot	3/31/06 - 5/6/08	0	116	9	2	0.02	4.04	0.32	0.08	0.62
	E. Br. Neponset	3/31/06 - 5/6/08	6	206	22	13	0.21	7.17	0.78	0.44	
		10/1/52 - 5/6/08	2	814	34	18	0.06	28.35	1.17	0.63	
NOV	Monatiquot	3/31/06 - 5/6/08	1	236	41	15	0.03	8.22	1.44	0.51	0.80
	E. Br. Neponset	3/31/06 - 5/6/08	9	315	55	33	0.30	10.99	1.92	1.16	
		10/1/52 - 5/6/08	4	513	50	38	0.13	17.87	1.74	1.32	
DEC	Monatiquot	3/31/06 - 5/6/08	3	82	34	33	0.09	2.86	1.18	1.15	0.90
	E. Br. Neponset	3/31/06 - 5/6/08	9	126	46	44	0.30	4.38	1.62	1.53	
		10/1/52 - 5/6/08	6	653	68	54	0.21	22.76	2.37	1.88	
ANNUAL	Monatiquot	3/31/06 - 5/6/08	0	537	53	28	0.02	18.71	1.84	0.96	0.85
	E. Br. Neponset	3/31/06 - 5/6/08	5	651	63	40	0.17	22.68	2.20	1.40	
		10/1/52 - 5/6/08	1	1435	55	39	0.02	50.00	1.92	1.36	

Note: Flow data for the East Branch Neponset River gage (drainage area = 27.2 mi²) have been multiplied by a factor of 1.06 to reflect the drainage area at the Monatiquot River gage (28.7 mi²).

Table A-2: Annual and Monthly Flow Statistics for Great Pond Dam Outlet

Month	Gage	Period of Record	Flow (cfs)				Flow per Drainage Area (cfs/mi ²)			
			Min	Max	Mean	Median	Min	Max	Mean	Median
JAN	Monatiquot	3/31/06 - 5/6/08	3.8	16.8	9.3	10.2	0.63	2.75	1.53	1.67
	E. Br. Neponset	10/1/52 - 5/6/08	1.6	143.8	15.4	12.3	0.26	23.57	2.52	2.02
FEB	Monatiquot	3/31/06 - 5/6/08	1.5	69.3	16.8	14.9	0.24	11.36	2.75	2.44
	E. Br. Neponset	10/1/52 - 5/6/08	2.0	98.0	16.2	13.7	0.32	16.07	2.66	2.24
MAR	Monatiquot	3/31/06 - 5/6/08	3.2	65.5	22.5	19.8	0.52	10.73	3.68	3.24
	E. Br. Neponset	10/1/52 - 5/6/08	3.8	183.2	21.1	17.5	0.63	30.04	3.46	2.87
APR	Monatiquot	3/31/06 - 5/6/08	2.3	81.6	15.0	8.9	0.38	13.38	2.45	1.46
	E. Br. Neponset	10/1/52 - 5/6/08	3.4	115.7	20.1	16.8	0.55	18.97	3.30	2.76
MAY	Monatiquot	3/31/06 - 5/6/08	2.6	95.2	18.9	12.4	0.42	15.61	3.10	2.04
	E. Br. Neponset	10/1/52 - 5/6/08	1.9	83.9	12.5	10.1	0.31	13.75	2.05	1.65
JUN	Monatiquot	3/31/06 - 5/6/08	1.1	114.1	22.4	10.0	0.18	18.71	3.67	1.64
	E. Br. Neponset	10/1/52 - 5/6/08	0.6	198.5	9.1	5.4	0.10	32.54	1.50	0.88
JUL	Monatiquot	3/31/06 - 5/6/08	0.2	33.2	6.8	2.8	0.04	5.44	1.11	0.45
	E. Br. Neponset	10/1/52 - 5/6/08	0.1	82.5	4.5	2.9	0.02	13.53	0.73	0.48
AUG	Monatiquot	3/31/06 - 5/6/08	0.1	6.6	1.6	0.8	0.02	1.08	0.26	0.13
	E. Br. Neponset	10/1/52 - 5/6/08	0.1	305.0	4.8	2.5	0.02	50.00	0.78	0.40
SEP	Monatiquot	3/31/06 - 5/6/08	0.1	4.0	1.2	0.7	0.02	0.66	0.19	0.12
	E. Br. Neponset	10/1/52 - 5/6/08	0.1	81.4	4.8	2.7	0.02	13.35	0.79	0.44
OCT	Monatiquot	3/31/06 - 5/6/08	0.1	24.7	2.0	0.5	0.02	4.04	0.32	0.08
	E. Br. Neponset	10/1/52 - 5/6/08	0.4	172.9	7.1	3.8	0.06	28.35	1.17	0.63
NOV	Monatiquot	3/31/06 - 5/6/08	0.2	50.2	8.8	3.1	0.03	8.22	1.44	0.51
	E. Br. Neponset	10/1/52 - 5/6/08	0.8	109.0	10.6	8.1	0.13	17.87	1.74	1.32
DEC	Monatiquot	3/31/06 - 5/6/08	0.5	17.4	7.2	7.0	0.09	2.86	1.18	1.15
	E. Br. Neponset	10/1/52 - 5/6/08	1.3	138.8	14.4	11.4	0.21	22.76	2.37	1.88
ANNUAL	Monatiquot	3/31/06 - 5/6/08	0.1	114.1	11.2	5.8	0.02	18.71	1.84	0.96
	E. Br. Neponset	10/1/52 - 5/6/08	0.1	305.0	11.7	8.3	0.02	50.00	1.92	1.36

Note: A range of flow statistics for Great Pond Dam Outlet (drainage area = 6.1 mi²) have been estimated by adjusting to the Monatiquot River gage (drainage area = 28.7 mi²) and the East Branch Neponset River gage (drainage area = 27.2 mi²).

Table A-3: Annual and Monthly Flow Statistics for Sunset Lake Dam Outlet

Month	Gage	Period of Record	Flow (cfs)				Flow per Drainage Area (cfs/mi ²)			
			Min	Max	Mean	Median	Min	Max	Mean	Median
JAN	Monatiquot	3/31/06 - 5/6/08	0.31	1.38	0.76	0.84	0.63	2.75	1.53	1.67
	E. Br. Neponset	10/1/52 - 5/6/08	0.13	11.78	1.26	1.01	0.26	23.57	2.52	2.02
FEB	Monatiquot	3/31/06 - 5/6/08	0.12	5.68	1.37	1.22	0.24	11.36	2.75	2.44
	E. Br. Neponset	10/1/52 - 5/6/08	0.16	8.03	1.33	1.12	0.32	16.07	2.66	2.24
MAR	Monatiquot	3/31/06 - 5/6/08	0.26	5.37	1.84	1.62	0.52	10.73	3.68	3.24
	E. Br. Neponset	10/1/52 - 5/6/08	0.31	15.02	1.73	1.43	0.63	30.04	3.46	2.87
APR	Monatiquot	3/31/06 - 5/6/08	0.19	6.69	1.23	0.73	0.38	13.38	2.45	1.46
	E. Br. Neponset	10/1/52 - 5/6/08	0.28	9.49	1.65	1.38	0.55	18.97	3.30	2.76
MAY	Monatiquot	3/31/06 - 5/6/08	0.21	7.80	1.55	1.02	0.42	15.61	3.10	2.04
	E. Br. Neponset	10/1/52 - 5/6/08	0.15	6.88	1.03	0.83	0.31	13.75	2.05	1.65
JUN	Monatiquot	3/31/06 - 5/6/08	0.09	9.36	1.83	0.82	0.18	18.71	3.67	1.64
	E. Br. Neponset	10/1/52 - 5/6/08	0.05	16.27	0.75	0.44	0.10	32.54	1.50	0.88
JUL	Monatiquot	3/31/06 - 5/6/08	0.02	2.72	0.56	0.23	0.04	5.44	1.11	0.45
	E. Br. Neponset	10/1/52 - 5/6/08	0.01	6.76	0.37	0.24	0.02	13.53	0.73	0.48
AUG	Monatiquot	3/31/06 - 5/6/08	0.01	0.54	0.13	0.06	0.02	1.08	0.26	0.13
	E. Br. Neponset	10/1/52 - 5/6/08	0.01	25.00	0.39	0.20	0.02	50.00	0.78	0.40
SEP	Monatiquot	3/31/06 - 5/6/08	0.01	0.33	0.10	0.06	0.02	0.66	0.19	0.12
	E. Br. Neponset	10/1/52 - 5/6/08	0.01	6.67	0.40	0.22	0.02	13.35	0.79	0.44
OCT	Monatiquot	3/31/06 - 5/6/08	0.01	2.02	0.16	0.04	0.02	4.04	0.32	0.08
	E. Br. Neponset	10/1/52 - 5/6/08	0.03	14.17	0.59	0.31	0.06	28.35	1.17	0.63
NOV	Monatiquot	3/31/06 - 5/6/08	0.01	4.11	0.72	0.25	0.03	8.22	1.44	0.51
	E. Br. Neponset	10/1/52 - 5/6/08	0.07	8.93	0.87	0.66	0.13	17.87	1.74	1.32
DEC	Monatiquot	3/31/06 - 5/6/08	0.04	1.43	0.59	0.57	0.09	2.86	1.18	1.15
	E. Br. Neponset	10/1/52 - 5/6/08	0.10	11.38	1.18	0.94	0.21	22.76	2.37	1.88
ANNUAL	Monatiquot	3/31/06 - 5/6/08	0.01	9.36	0.92	0.48	0.02	18.71	1.84	0.96
	E. Br. Neponset	10/1/52 - 5/6/08	0.01	25.00	0.96	0.68	0.02	50.00	1.92	1.36

Note: A range of flow statistics for Sunset Lake Dam Outlet (drainage area = 0.5 mi²) have been estimated by adjusting to the Monatiquot River gage (drainage area = 28.7 mi²) and the East Branch Neponset River gage (drainage area = 27.2 mi²).

Table A-4: Annual and Monthly Flow Statistics for Farm River at Monatiquot River

Month	Gage	Period of Record	Flow (cfs)				Flow per Drainage Area (cfs/mi ²)			
			Min	Max	Mean	Median	Min	Max	Mean	Median
JAN	Monatiquot	3/31/06 - 5/6/08	8.1	35.5	19.7	21.6	0.63	2.75	1.53	1.67
	E. Br. Neponset	10/1/52 - 5/6/08	3.4	304.0	32.6	26.1	0.26	23.57	2.52	2.02
FEB	Monatiquot	3/31/06 - 5/6/08	3.1	146.5	35.5	31.5	0.24	11.36	2.75	2.44
	E. Br. Neponset	10/1/52 - 5/6/08	4.1	207.3	34.3	28.9	0.32	16.07	2.66	2.24
MAR	Monatiquot	3/31/06 - 5/6/08	6.7	138.4	47.5	41.8	0.52	10.73	3.68	3.24
	E. Br. Neponset	10/1/52 - 5/6/08	8.1	387.5	44.6	37.0	0.63	30.04	3.46	2.87
APR	Monatiquot	3/31/06 - 5/6/08	4.9	172.6	31.6	18.9	0.38	13.38	2.45	1.46
	E. Br. Neponset	10/1/52 - 5/6/08	7.1	244.7	42.5	35.6	0.55	18.97	3.30	2.76
MAY	Monatiquot	3/31/06 - 5/6/08	5.4	201.4	40.0	26.3	0.42	15.61	3.10	2.04
	E. Br. Neponset	10/1/52 - 5/6/08	4.0	177.4	26.5	21.3	0.31	13.75	2.05	1.65
JUN	Monatiquot	3/31/06 - 5/6/08	2.3	241.4	47.3	21.1	0.18	18.71	3.67	1.64
	E. Br. Neponset	10/1/52 - 5/6/08	1.3	419.7	19.3	11.4	0.10	32.54	1.50	0.88
JUL	Monatiquot	3/31/06 - 5/6/08	0.5	70.1	14.4	5.8	0.04	5.44	1.11	0.45
	E. Br. Neponset	10/1/52 - 5/6/08	0.3	174.5	9.4	6.2	0.02	13.53	0.73	0.48
AUG	Monatiquot	3/31/06 - 5/6/08	0.3	13.9	3.4	1.7	0.02	1.08	0.26	0.13
	E. Br. Neponset	10/1/52 - 5/6/08	0.3	645.0	10.1	5.2	0.02	50.00	0.78	0.40
SEP	Monatiquot	3/31/06 - 5/6/08	0.2	8.5	2.5	1.6	0.02	0.66	0.19	0.12
	E. Br. Neponset	10/1/52 - 5/6/08	0.3	172.2	10.2	5.7	0.02	13.35	0.79	0.44
OCT	Monatiquot	3/31/06 - 5/6/08	0.2	52.1	4.1	1.1	0.02	4.04	0.32	0.08
	E. Br. Neponset	10/1/52 - 5/6/08	0.8	365.7	15.1	8.1	0.06	28.35	1.17	0.63
NOV	Monatiquot	3/31/06 - 5/6/08	0.3	106.1	18.6	6.5	0.03	8.22	1.44	0.51
	E. Br. Neponset	10/1/52 - 5/6/08	1.7	230.5	22.5	17.1	0.13	17.87	1.74	1.32
DEC	Monatiquot	3/31/06 - 5/6/08	1.1	36.9	15.2	14.8	0.09	2.86	1.18	1.15
	E. Br. Neponset	10/1/52 - 5/6/08	2.7	293.6	30.5	24.2	0.21	22.76	2.37	1.88
ANNUAL	Monatiquot	3/31/06 - 5/6/08	0.2	241.4	23.7	12.4	0.02	18.71	1.84	0.96
	E. Br. Neponset	10/1/52 - 5/6/08	0.3	645.0	24.8	17.5	0.02	50.00	1.92	1.36

Note: A range of flow statistics for Farm River at Monatiquot River (drainage area = 12.9 mi²) have been estimated by adjusting to the Monatiquot River gage (drainage area = 28.7 mi²) and the East Branch Neponset River gage (drainage area = 27.2 mi²).

Table A-5: Annual and Monthly Flow Statistics for Cochato River at Former Diversion

Month	Gage	Period of Record	Flow (cfs)				Flow per Drainage Area (cfs/mi ²)			
			Min	Max	Mean	Median	Min	Max	Mean	Median
JAN	Monatiquot	3/31/06 - 5/6/08	6.7	29.5	16.4	17.9	0.63	2.75	1.53	1.67
	E. Br. Neponset	10/1/52 - 5/6/08	2.8	252.2	27.0	21.6	0.26	23.57	2.52	2.02
FEB	Monatiquot	3/31/06 - 5/6/08	2.6	121.5	29.4	26.1	0.24	11.36	2.75	2.44
	E. Br. Neponset	10/1/52 - 5/6/08	3.4	171.9	28.5	24.0	0.32	16.07	2.66	2.24
MAR	Monatiquot	3/31/06 - 5/6/08	5.6	114.8	39.4	34.7	0.52	10.73	3.68	3.24
	E. Br. Neponset	10/1/52 - 5/6/08	6.7	321.4	37.0	30.7	0.63	30.04	3.46	2.87
APR	Monatiquot	3/31/06 - 5/6/08	4.1	143.2	26.2	15.7	0.38	13.38	2.45	1.46
	E. Br. Neponset	10/1/52 - 5/6/08	5.9	203.0	35.3	29.5	0.55	18.97	3.30	2.76
MAY	Monatiquot	3/31/06 - 5/6/08	4.5	167.0	33.2	21.8	0.42	15.61	3.10	2.04
	E. Br. Neponset	10/1/52 - 5/6/08	3.3	147.1	22.0	17.7	0.31	13.75	2.05	1.65
JUN	Monatiquot	3/31/06 - 5/6/08	1.9	200.2	39.2	17.5	0.18	18.71	3.67	1.64
	E. Br. Neponset	10/1/52 - 5/6/08	1.1	348.1	16.0	9.4	0.10	32.54	1.50	0.88
JUL	Monatiquot	3/31/06 - 5/6/08	0.4	58.2	11.9	4.8	0.04	5.44	1.11	0.45
	E. Br. Neponset	10/1/52 - 5/6/08	0.2	144.8	7.8	5.1	0.02	13.53	0.73	0.48
AUG	Monatiquot	3/31/06 - 5/6/08	0.2	11.6	2.8	1.4	0.02	1.08	0.26	0.13
	E. Br. Neponset	10/1/52 - 5/6/08	0.3	535.0	8.4	4.3	0.02	50.00	0.78	0.40
SEP	Monatiquot	3/31/06 - 5/6/08	0.2	7.1	2.1	1.3	0.02	0.66	0.19	0.12
	E. Br. Neponset	10/1/52 - 5/6/08	0.2	142.8	8.5	4.7	0.02	13.35	0.79	0.44
OCT	Monatiquot	3/31/06 - 5/6/08	0.2	43.2	3.4	0.9	0.02	4.04	0.32	0.08
	E. Br. Neponset	10/1/52 - 5/6/08	0.7	303.3	12.5	6.7	0.06	28.35	1.17	0.63
NOV	Monatiquot	3/31/06 - 5/6/08	0.3	88.0	15.4	5.4	0.03	8.22	1.44	0.51
	E. Br. Neponset	10/1/52 - 5/6/08	1.4	191.2	18.7	14.2	0.13	17.87	1.74	1.32
DEC	Monatiquot	3/31/06 - 5/6/08	0.9	30.6	12.6	12.3	0.09	2.86	1.18	1.15
	E. Br. Neponset	10/1/52 - 5/6/08	2.2	243.5	25.3	20.1	0.21	22.76	2.37	1.88
ANNUAL	Monatiquot	3/31/06 - 5/6/08	0.2	200.2	19.7	10.3	0.02	18.71	1.84	0.96
	E. Br. Neponset	10/1/52 - 5/6/08	0.2	535.0	20.6	14.6	0.02	50.00	1.92	1.36

Note: A range of flow statistics for Cochato River at former diversion (drainage area = 10.7 mi²) have been estimated by adjusting to the Monatiquot River gage (drainage area = 28.7 mi²) and the East Branch Neponset River gage (drainage area = 27.2 mi²).

Table A-6: Annual and Monthly Flow Statistics for Cochato River at Monatiquot River

Month	Gage	Period of Record	Flow (cfs)				Flow per Drainage Area (cfs/mi ²)			
			Min	Max	Mean	Median	Min	Max	Mean	Median
JAN	Monatiquot	3/31/06 - 5/6/08	7.0	30.6	17.0	18.6	0.63	2.75	1.53	1.67
	E. Br. Neponset	10/1/52 - 5/6/08	2.9	261.6	28.0	22.4	0.26	23.57	2.52	2.02
FEB	Monatiquot	3/31/06 - 5/6/08	2.7	126.1	30.5	27.1	0.24	11.36	2.75	2.44
	E. Br. Neponset	10/1/52 - 5/6/08	3.6	178.3	29.6	24.9	0.32	16.07	2.66	2.24
MAR	Monatiquot	3/31/06 - 5/6/08	5.8	119.1	40.9	36.0	0.52	10.73	3.68	3.24
	E. Br. Neponset	10/1/52 - 5/6/08	6.9	333.4	38.4	31.8	0.63	30.04	3.46	2.87
APR	Monatiquot	3/31/06 - 5/6/08	4.3	148.5	27.2	16.2	0.38	13.38	2.45	1.46
	E. Br. Neponset	10/1/52 - 5/6/08	6.1	210.6	36.6	30.6	0.55	18.97	3.30	2.76
MAY	Monatiquot	3/31/06 - 5/6/08	4.6	173.3	34.4	22.6	0.42	15.61	3.10	2.04
	E. Br. Neponset	10/1/52 - 5/6/08	3.4	152.6	22.8	18.4	0.31	13.75	2.05	1.65
JUN	Monatiquot	3/31/06 - 5/6/08	2.0	207.7	40.7	18.2	0.18	18.71	3.67	1.64
	E. Br. Neponset	10/1/52 - 5/6/08	1.1	361.2	16.6	9.8	0.10	32.54	1.50	0.88
JUL	Monatiquot	3/31/06 - 5/6/08	0.4	60.3	12.4	5.0	0.04	5.44	1.11	0.45
	E. Br. Neponset	10/1/52 - 5/6/08	0.2	150.2	8.1	5.3	0.02	13.53	0.73	0.48
AUG	Monatiquot	3/31/06 - 5/6/08	0.2	12.0	2.9	1.4	0.02	1.08	0.26	0.13
	E. Br. Neponset	10/1/52 - 5/6/08	0.3	555.0	8.7	4.5	0.02	50.00	0.78	0.40
SEP	Monatiquot	3/31/06 - 5/6/08	0.2	7.3	2.2	1.3	0.02	0.66	0.19	0.12
	E. Br. Neponset	10/1/52 - 5/6/08	0.2	148.1	8.8	4.9	0.02	13.35	0.79	0.44
OCT	Monatiquot	3/31/06 - 5/6/08	0.2	44.9	3.6	0.9	0.02	4.04	0.32	0.08
	E. Br. Neponset	10/1/52 - 5/6/08	0.7	314.6	13.0	6.9	0.06	28.35	1.17	0.63
NOV	Monatiquot	3/31/06 - 5/6/08	0.3	91.3	16.0	5.6	0.03	8.22	1.44	0.51
	E. Br. Neponset	10/1/52 - 5/6/08	1.5	198.3	19.3	14.7	0.13	17.87	1.74	1.32
DEC	Monatiquot	3/31/06 - 5/6/08	1.0	31.7	13.1	12.8	0.09	2.86	1.18	1.15
	E. Br. Neponset	10/1/52 - 5/6/08	2.3	252.6	26.3	20.8	0.21	22.76	2.37	1.88
ANNUAL	Monatiquot	3/31/06 - 5/6/08	0.2	207.7	20.4	10.6	0.02	18.71	1.84	0.96
	E. Br. Neponset	10/1/52 - 5/6/08	0.2	555.0	21.4	15.1	0.02	50.00	1.92	1.36

Note: A range of flow statistics for Cochato River at Monatiquot River (drainage area = 11.1 mi²) have been estimated by adjusting to the Monatiquot River gage (drainage area = 28.7 mi²) and the East Branch Neponset River gage (drainage area = 27.2 mi²).

Table A-7: Annual and Monthly Flow Statistics for Monatiquot River at Hollingsworth Dam

Month	Gage	Period of Record	Flow (cfs)				Flow per Drainage Area (cfs/mi ²)			
			Min	Max	Mean	Median	Min	Max	Mean	Median
JAN	Monatiquot	3/31/06 - 5/6/08	16.2	71.3	39.6	43.3	0.63	2.75	1.53	1.67
	E. Br. Neponset	10/1/52 - 5/6/08	6.9	610.4	65.4	52.4	0.26	23.57	2.52	2.02
FEB	Monatiquot	3/31/06 - 5/6/08	6.3	294.2	71.2	63.2	0.24	11.36	2.75	2.44
	E. Br. Neponset	10/1/52 - 5/6/08	8.3	416.1	69.0	58.1	0.32	16.07	2.66	2.24
MAR	Monatiquot	3/31/06 - 5/6/08	13.5	278.0	95.4	83.9	0.52	10.73	3.68	3.24
	E. Br. Neponset	10/1/52 - 5/6/08	16.2	778.0	89.6	74.3	0.63	30.04	3.46	2.87
APR	Monatiquot	3/31/06 - 5/6/08	9.9	346.5	63.5	37.9	0.38	13.38	2.45	1.46
	E. Br. Neponset	10/1/52 - 5/6/08	14.3	491.3	85.4	71.4	0.55	18.97	3.30	2.76
MAY	Monatiquot	3/31/06 - 5/6/08	10.8	404.3	80.3	52.8	0.42	15.61	3.10	2.04
	E. Br. Neponset	10/1/52 - 5/6/08	8.0	356.1	53.2	42.8	0.31	13.75	2.05	1.65
JUN	Monatiquot	3/31/06 - 5/6/08	4.7	484.6	94.9	42.4	0.18	18.71	3.67	1.64
	E. Br. Neponset	10/1/52 - 5/6/08	2.7	842.7	38.8	22.9	0.10	32.54	1.50	0.88
JUL	Monatiquot	3/31/06 - 5/6/08	1.0	140.8	28.9	11.7	0.04	5.44	1.11	0.45
	E. Br. Neponset	10/1/52 - 5/6/08	0.6	350.4	18.9	12.4	0.02	13.53	0.73	0.48
AUG	Monatiquot	3/31/06 - 5/6/08	0.5	28.0	6.8	3.3	0.02	1.08	0.26	0.13
	E. Br. Neponset	10/1/52 - 5/6/08	0.6	1295.0	20.2	10.5	0.02	50.00	0.78	0.40
SEP	Monatiquot	3/31/06 - 5/6/08	0.4	17.1	5.0	3.1	0.02	0.66	0.19	0.12
	E. Br. Neponset	10/1/52 - 5/6/08	0.6	345.7	20.6	11.4	0.02	13.35	0.79	0.44
OCT	Monatiquot	3/31/06 - 5/6/08	0.4	104.7	8.3	2.2	0.02	4.04	0.32	0.08
	E. Br. Neponset	10/1/52 - 5/6/08	1.6	734.2	30.3	16.2	0.06	28.35	1.17	0.63
NOV	Monatiquot	3/31/06 - 5/6/08	0.7	213.0	37.3	13.1	0.03	8.22	1.44	0.51
	E. Br. Neponset	10/1/52 - 5/6/08	3.4	462.8	45.1	34.3	0.13	17.87	1.74	1.32
DEC	Monatiquot	3/31/06 - 5/6/08	2.3	74.0	30.6	29.8	0.09	2.86	1.18	1.15
	E. Br. Neponset	10/1/52 - 5/6/08	5.4	589.4	61.3	48.6	0.21	22.76	2.37	1.88
ANNUAL	Monatiquot	3/31/06 - 5/6/08	0.4	484.6	47.6	24.8	0.02	18.71	1.84	0.96
	E. Br. Neponset	10/1/52 - 5/6/08	0.6	1295.0	49.9	35.2	0.02	50.00	1.92	1.36

Note: A range of flow statistics for Monatiquot River at Hollingsworth Dam (drainage area = 25.9 mi²) have been estimated by adjusting to the Monatiquot River gage (drainage area = 28.7 mi²) and the East Branch Neponset River gage (drainage area = 27.2 mi²).

**Comparison of Annual Flow Duration Curves for the
Monatiquot River (No. 01105583) and East Branch Neponset River (No. 01105500) Gages**

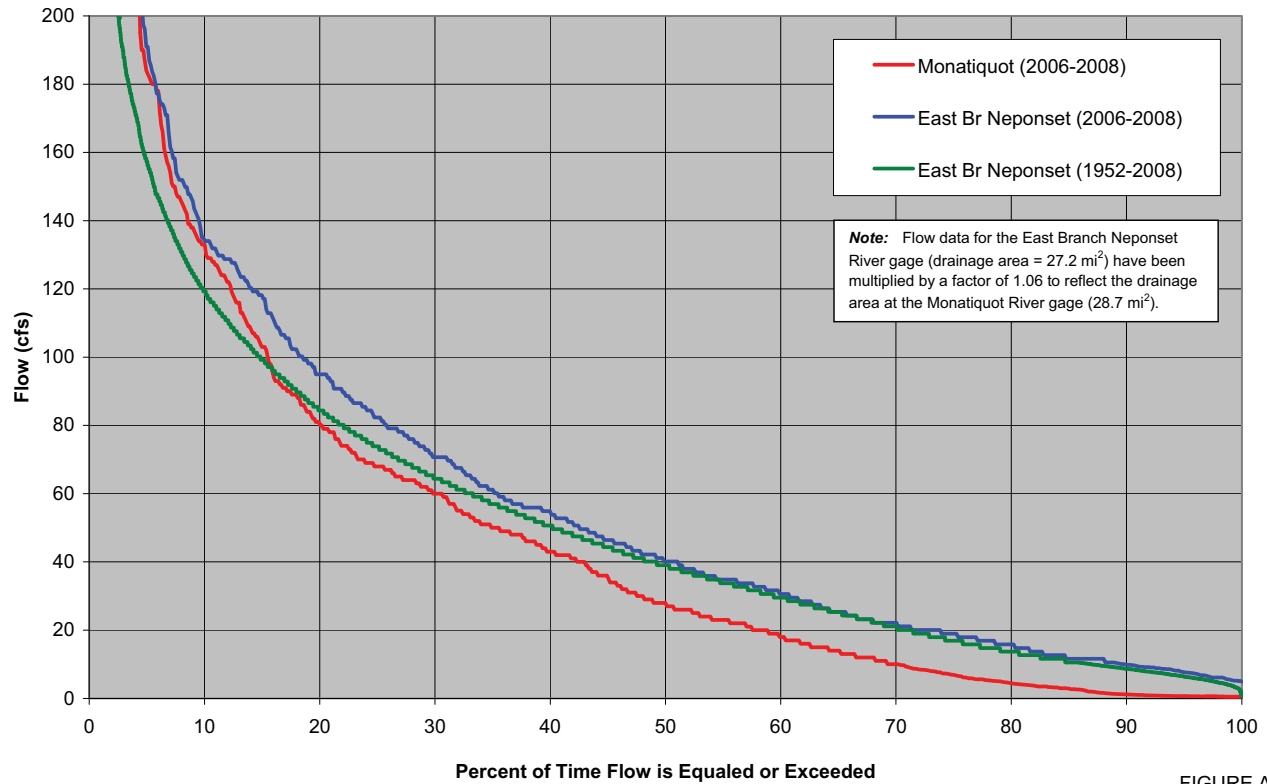


FIGURE A-1

**Regression Relationship between Monatiquot River and East Branch Neponset River
Annual Flows from 3/31/06 to 5/6/08**

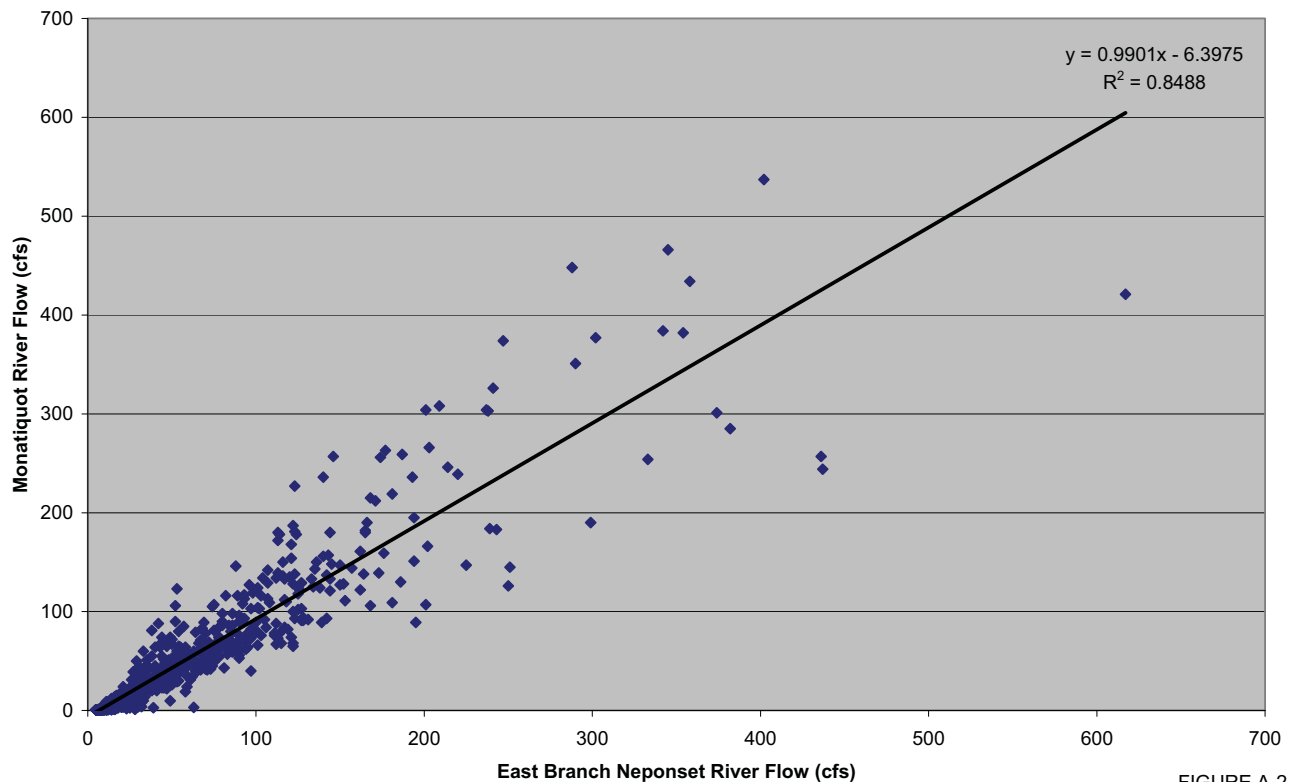


FIGURE A-2

**Comparison of January Flow Duration Curves for the
Monatiquot River (No. 01105583) and East Branch Neponset River (No. 01105500) Gages**

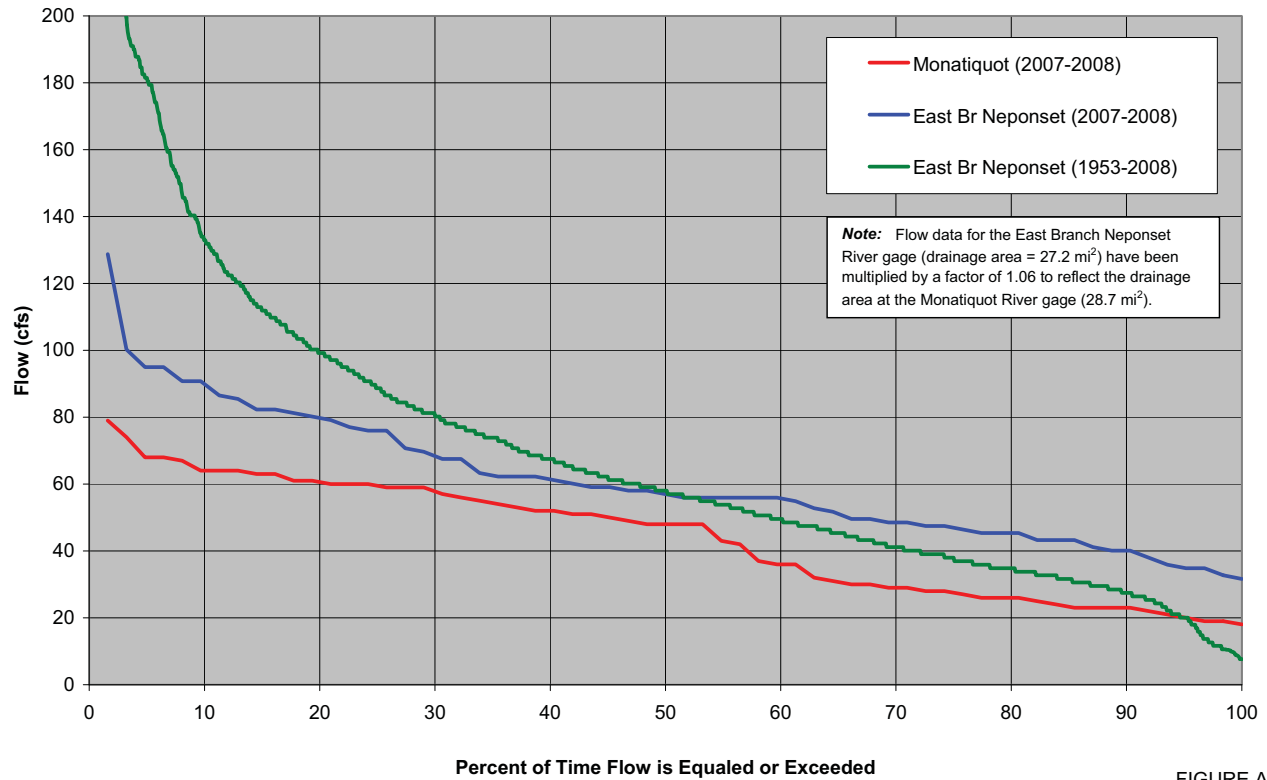


FIGURE A-3

**Regression Relationship between Monatiquot River and East Branch Neponset River
January Flows from 3/31/06 to 5/6/08**

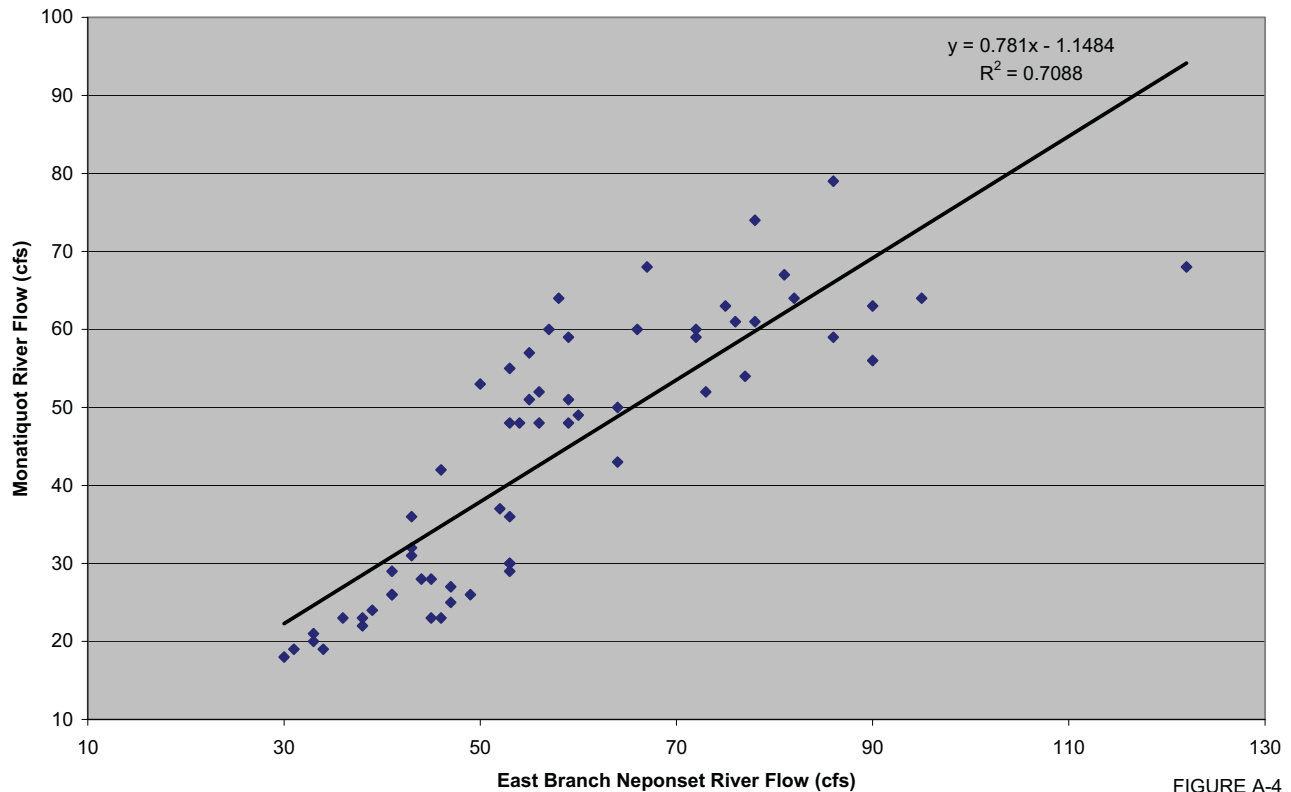


FIGURE A-4

**Comparison of February Flow Duration Curves for the
Monatiquot River (No. 01105583) and East Branch Neponset River (No. 01105500) Gages**

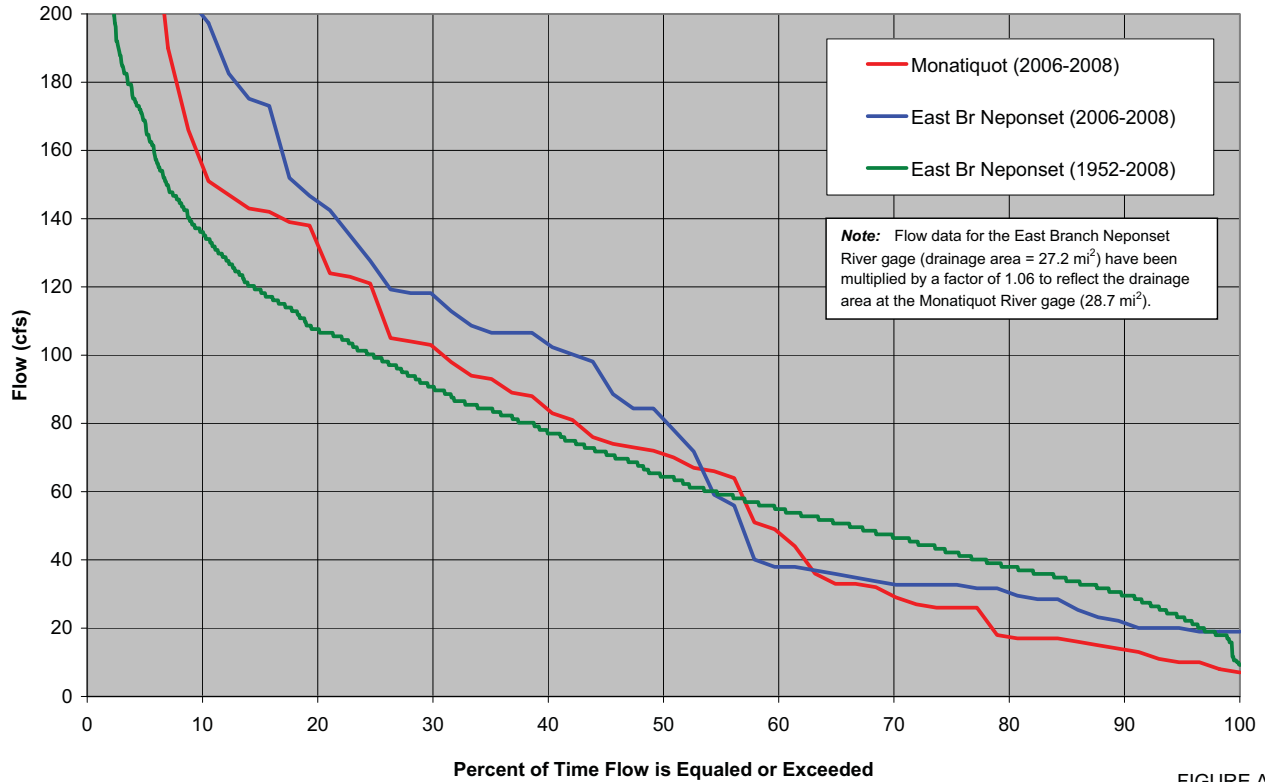


FIGURE A-5

**Regression Relationship between Monatiquot River and East Branch Neponset River
February Flows from 3/31/06 to 5/6/08**

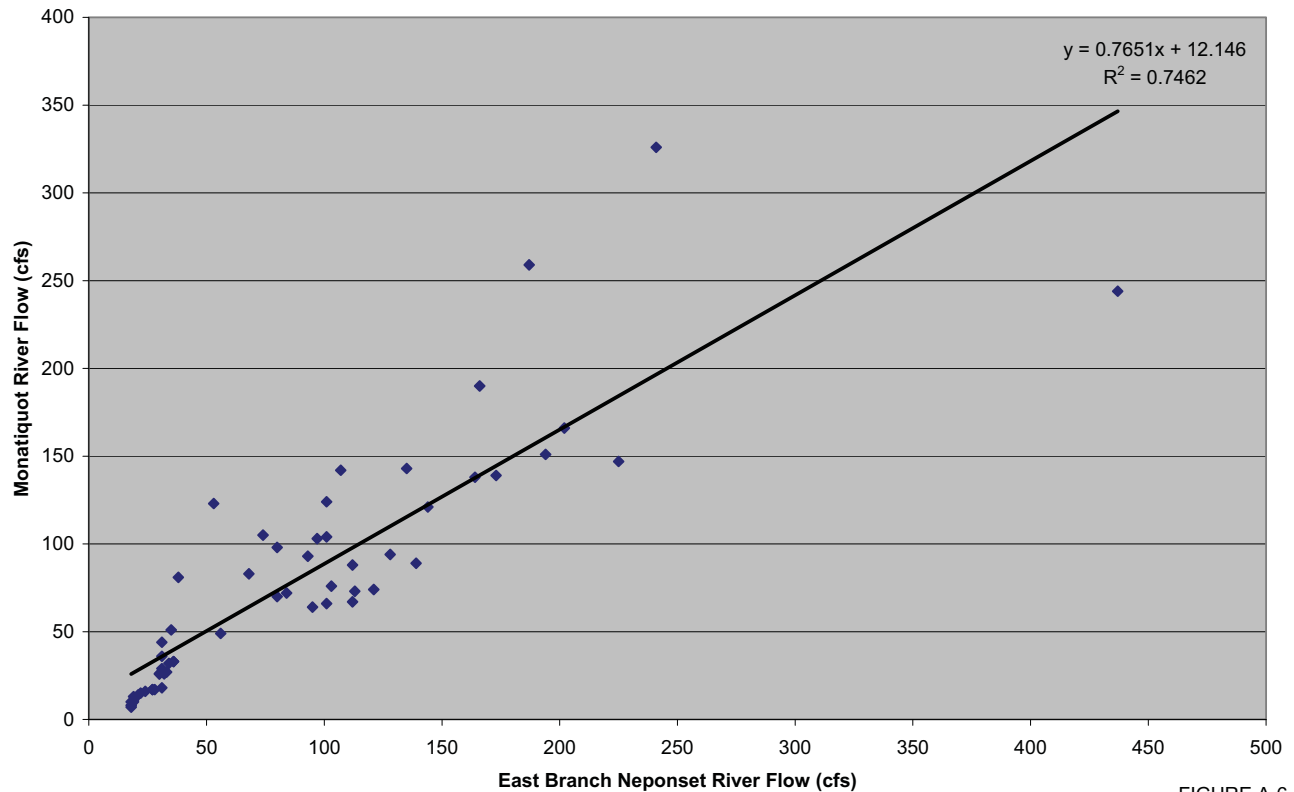


FIGURE A-6

**Comparison of March Flow Duration Curves for the
Monatiquot River (No. 01105583) and East Branch Neponset River (No. 01105500) Gages**

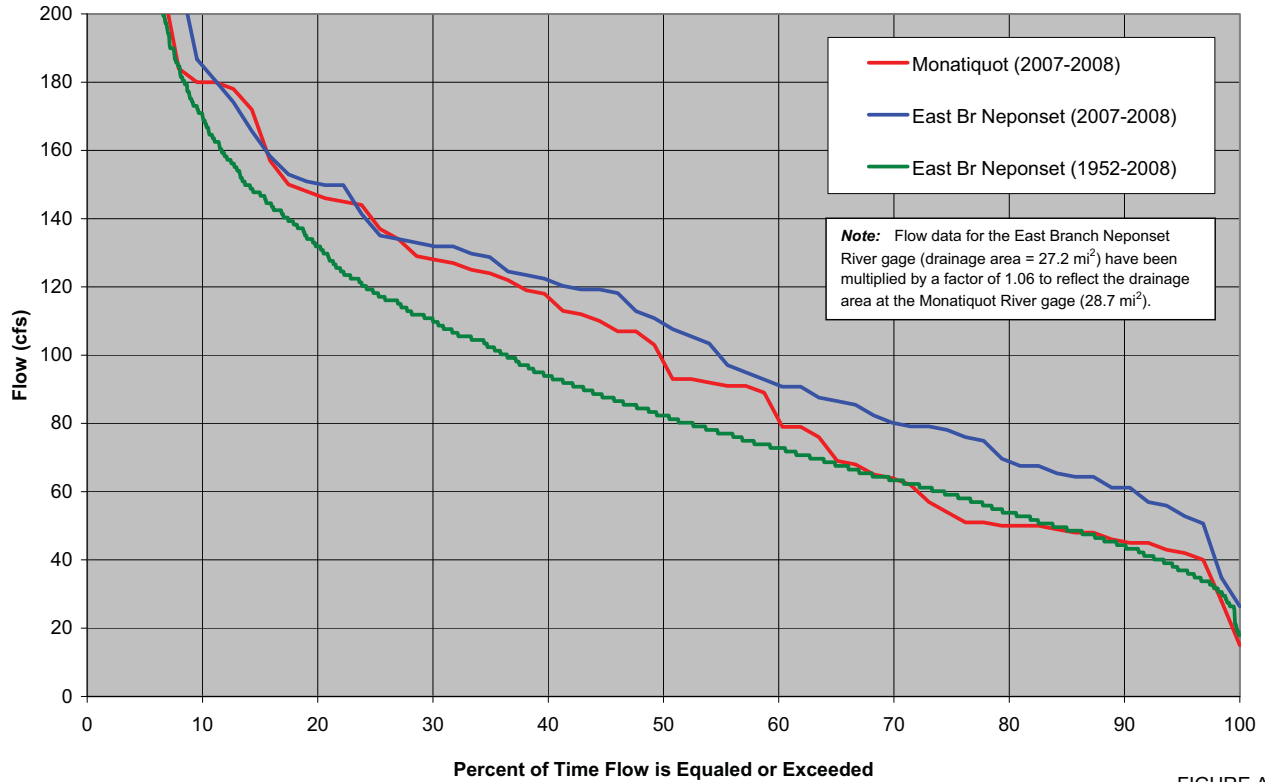


FIGURE A-7

**Regression Relationship between Monatiquot River and East Branch Neponset River
March Flows from 3/31/06 to 5/6/08**

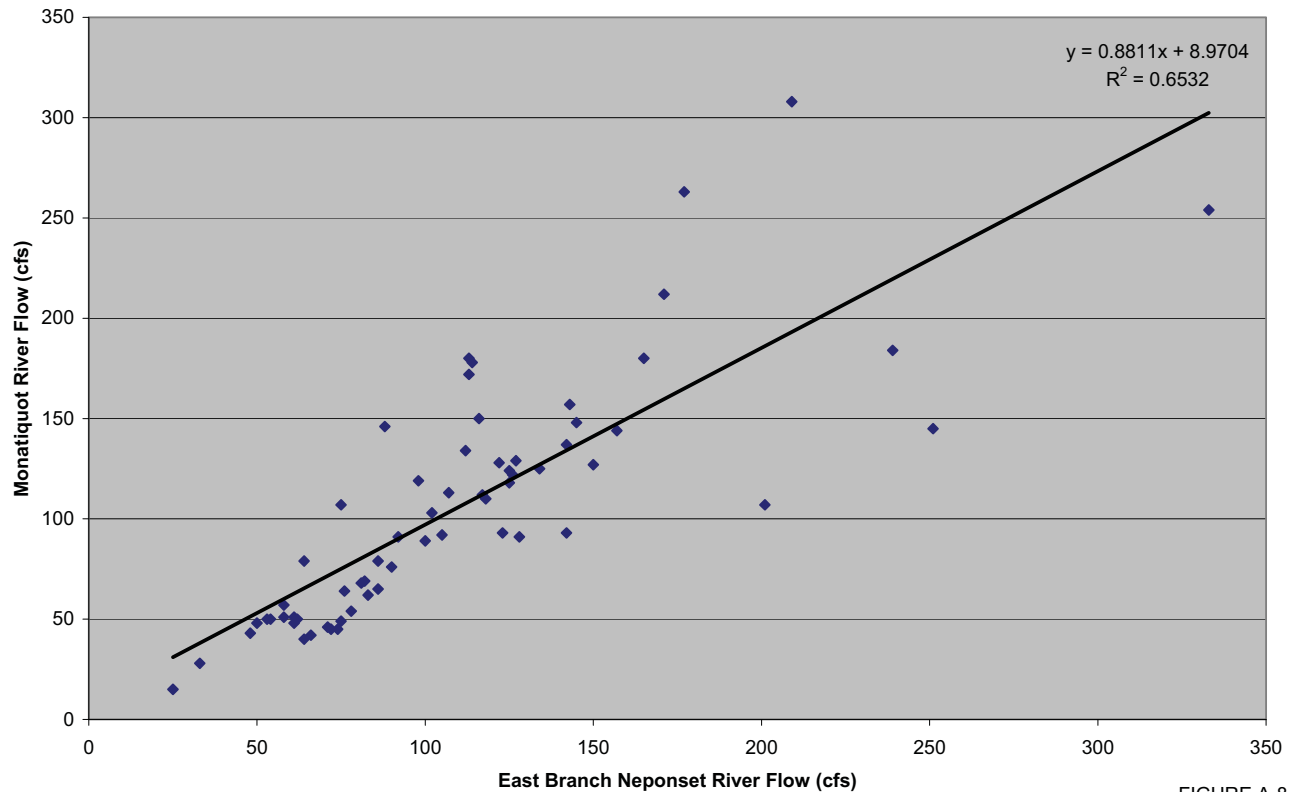


FIGURE A-8

**Comparison of April Flow Duration Curves for the
Monatiquot River (No. 01105583) and East Branch Neponset River (No. 01105500) Gages**

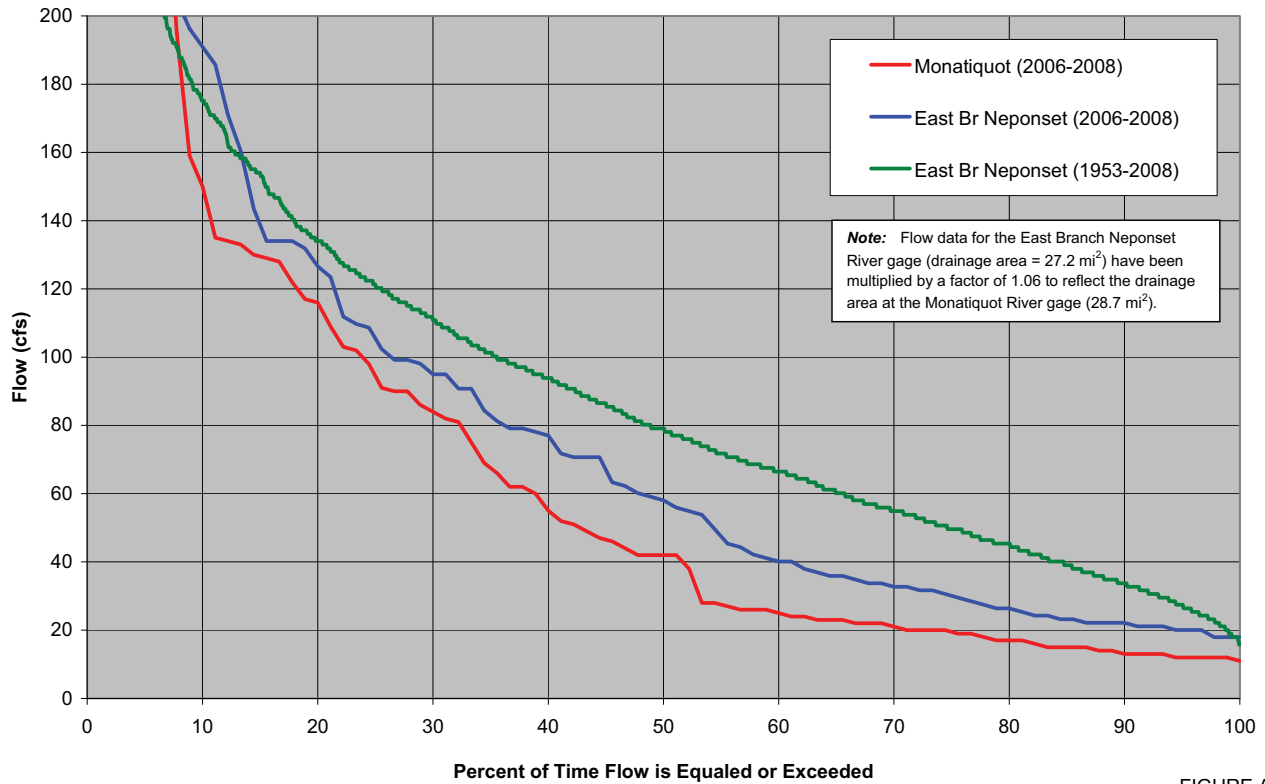


FIGURE A-9

**Regression Relationship between Monatiquot River and East Branch Neponset River
April Flows from 3/31/06 to 5/6/08**

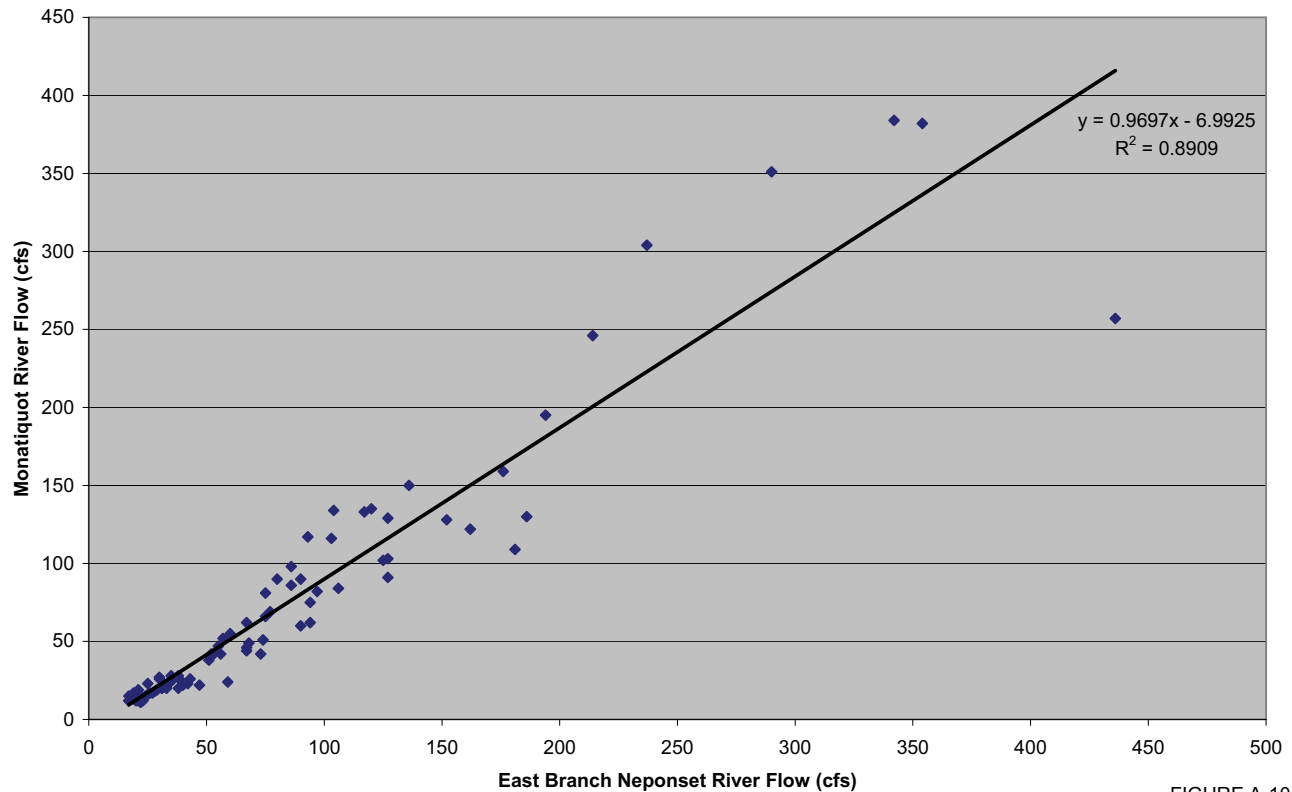


FIGURE A-10

**Comparison of May Flow Duration Curves for the
Monatiquot River (No. 01105583) and East Branch Neponset River (No. 01105500) Gages**

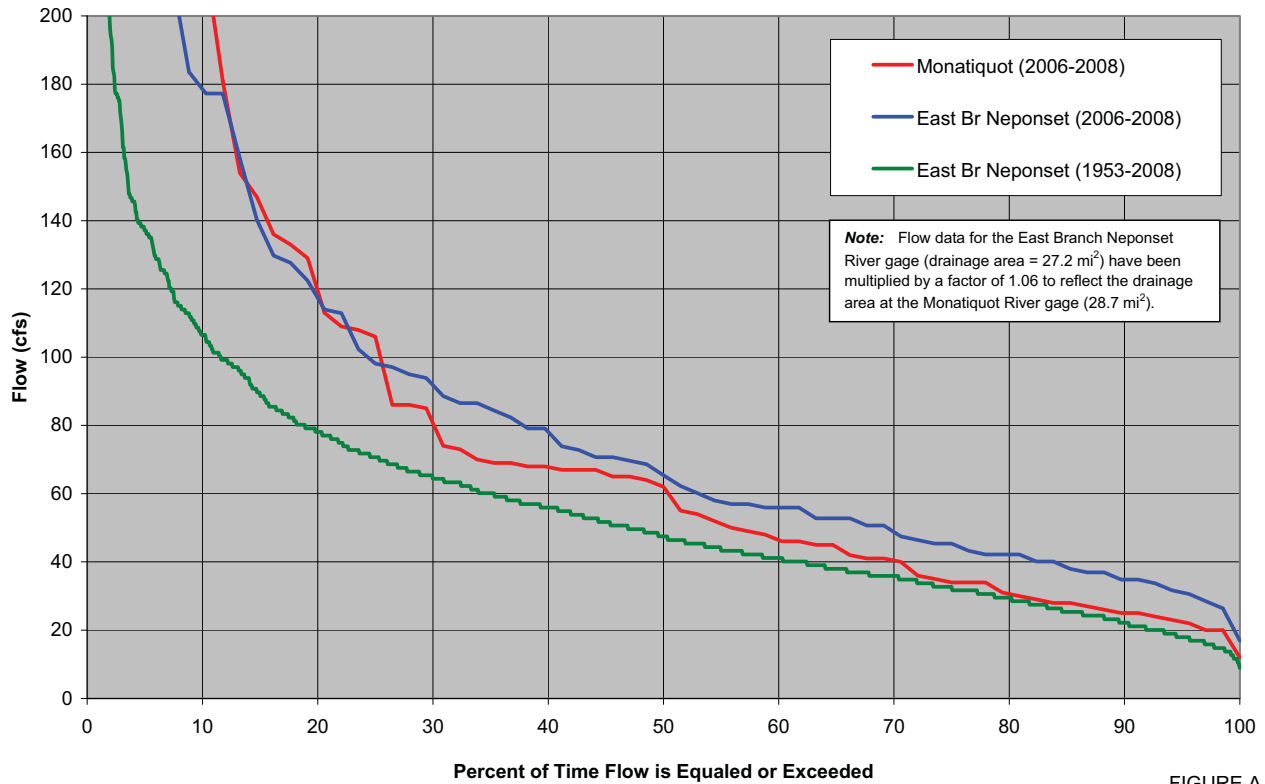


FIGURE A-11

**Regression Relationship between Monatiquot River and East Branch Neponset River
May Flows from 3/31/06 to 5/6/08**

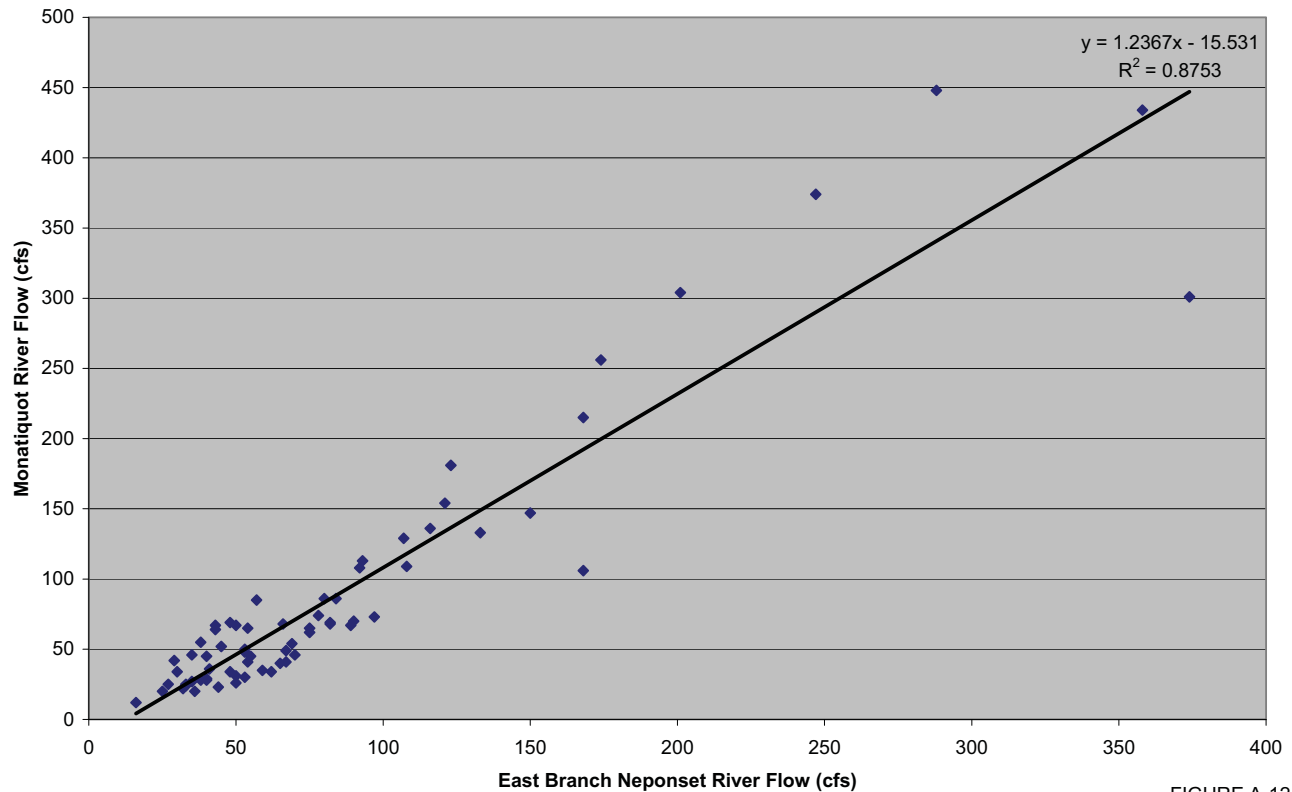


FIGURE A-12

**Comparison of June Flow Duration Curves for the
Monatiquot River (No. 01105583) and East Branch Neponset River (No. 01105500) Gages**

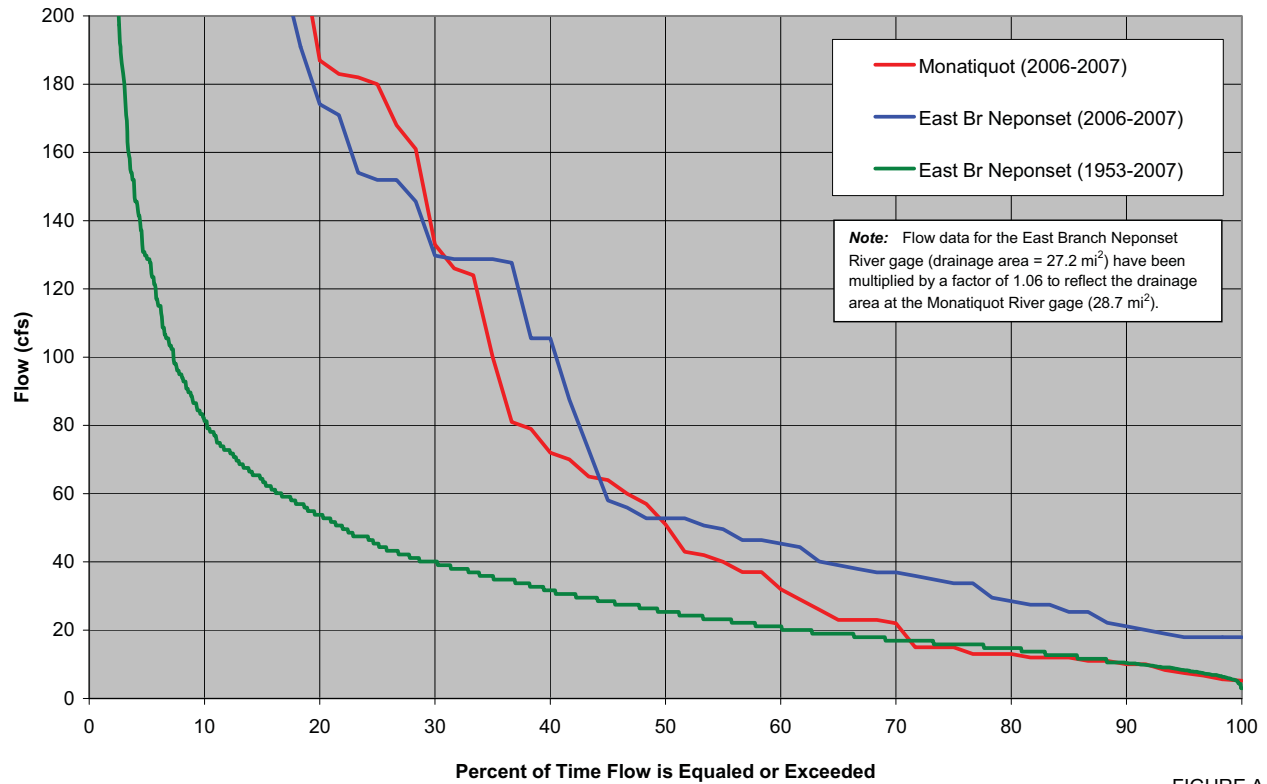


FIGURE A-13

**Regression Relationship between Monatiquot River and East Branch Neponset River
June Flows from 3/31/06 to 5/6/08**

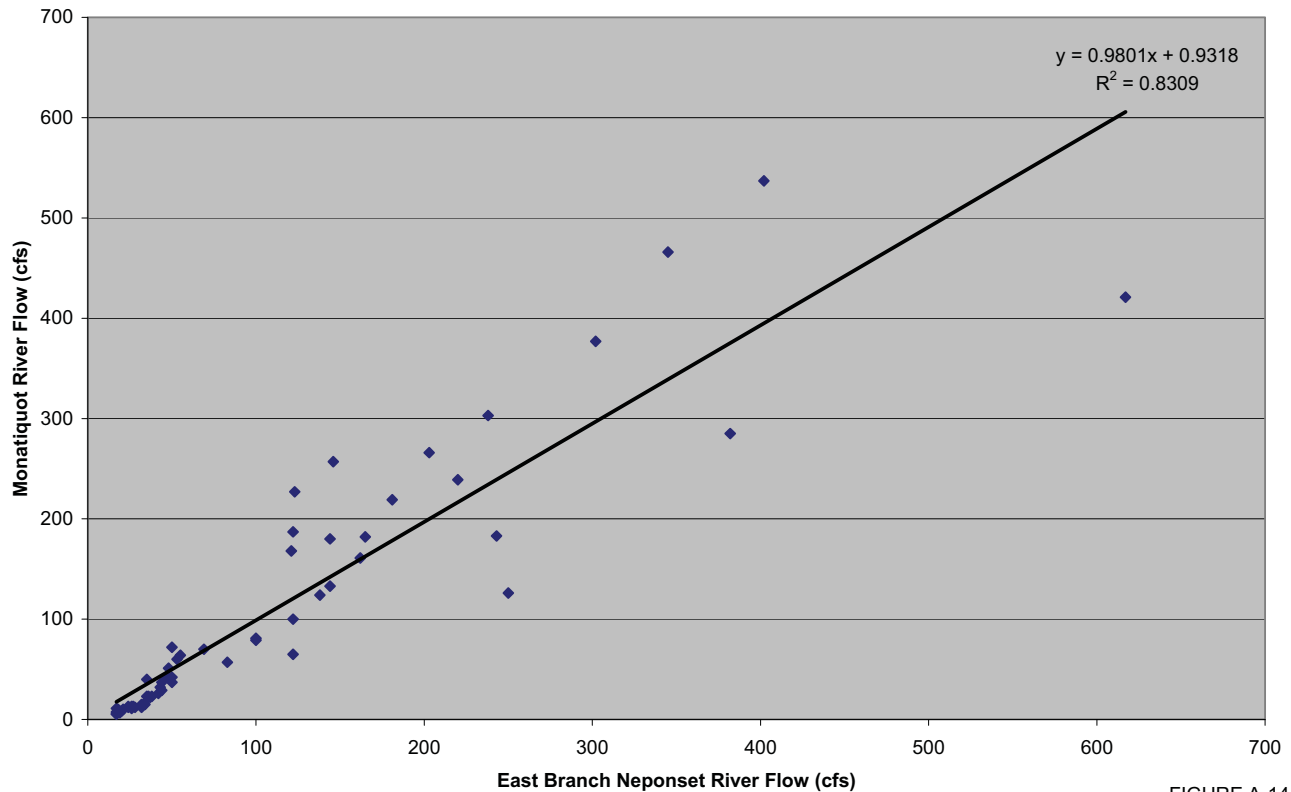


FIGURE A-14

**Comparison of July Flow Duration Curves for the
Monatiquot River (No. 01105583) and East Branch Neponset River (No. 01105500) Gages**

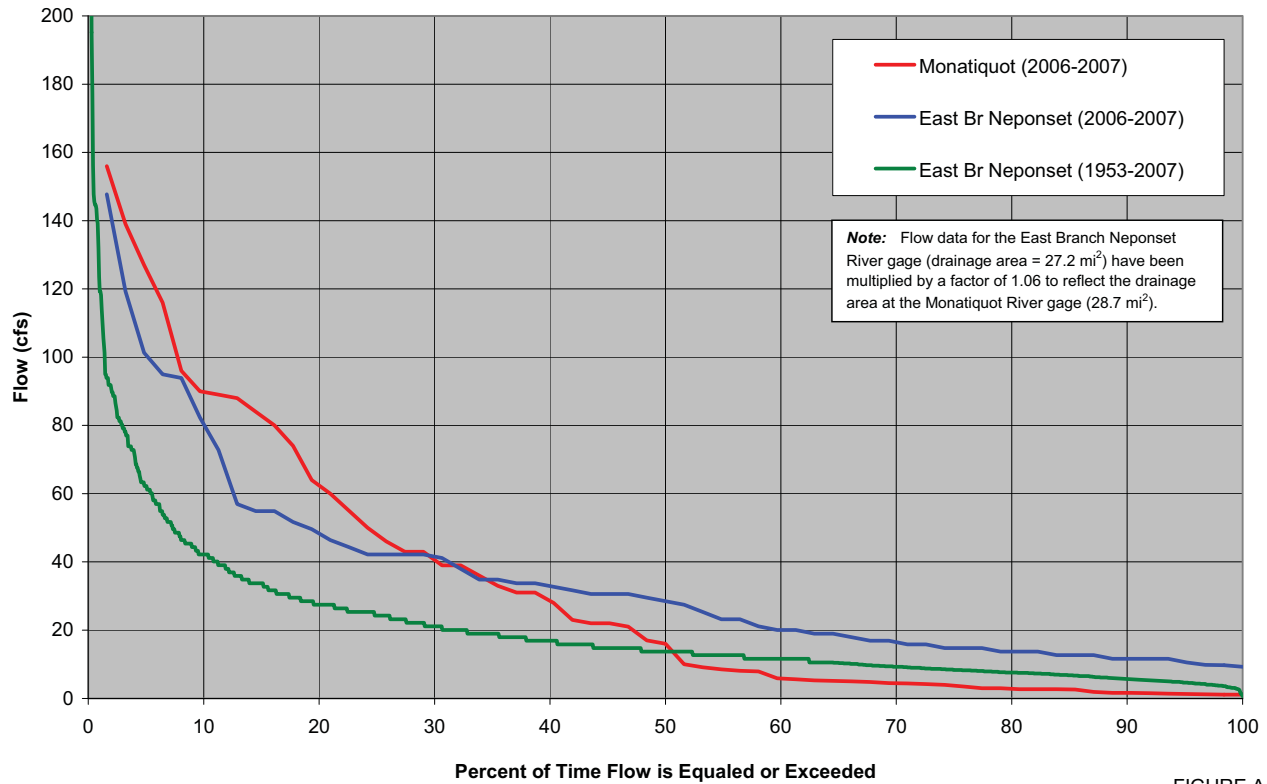


FIGURE A-15

**Regression Relationship between Monatiquot River and East Branch Neponset River
July Flows from 3/31/06 to 5/6/08**

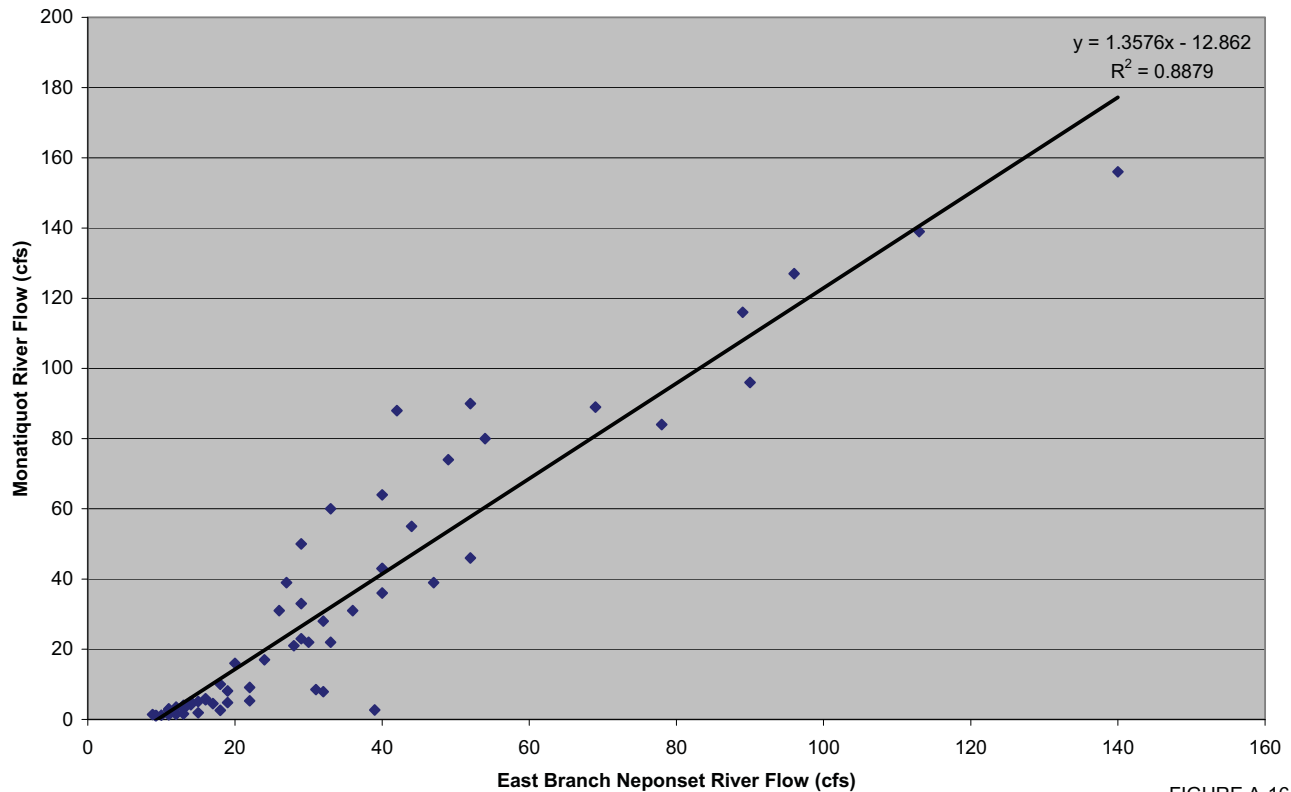


FIGURE A-16

**Comparison of August Flow Duration Curves for the
Monatiquot River (No. 01105583) and East Branch Neponset River (No. 01105500) Gages**

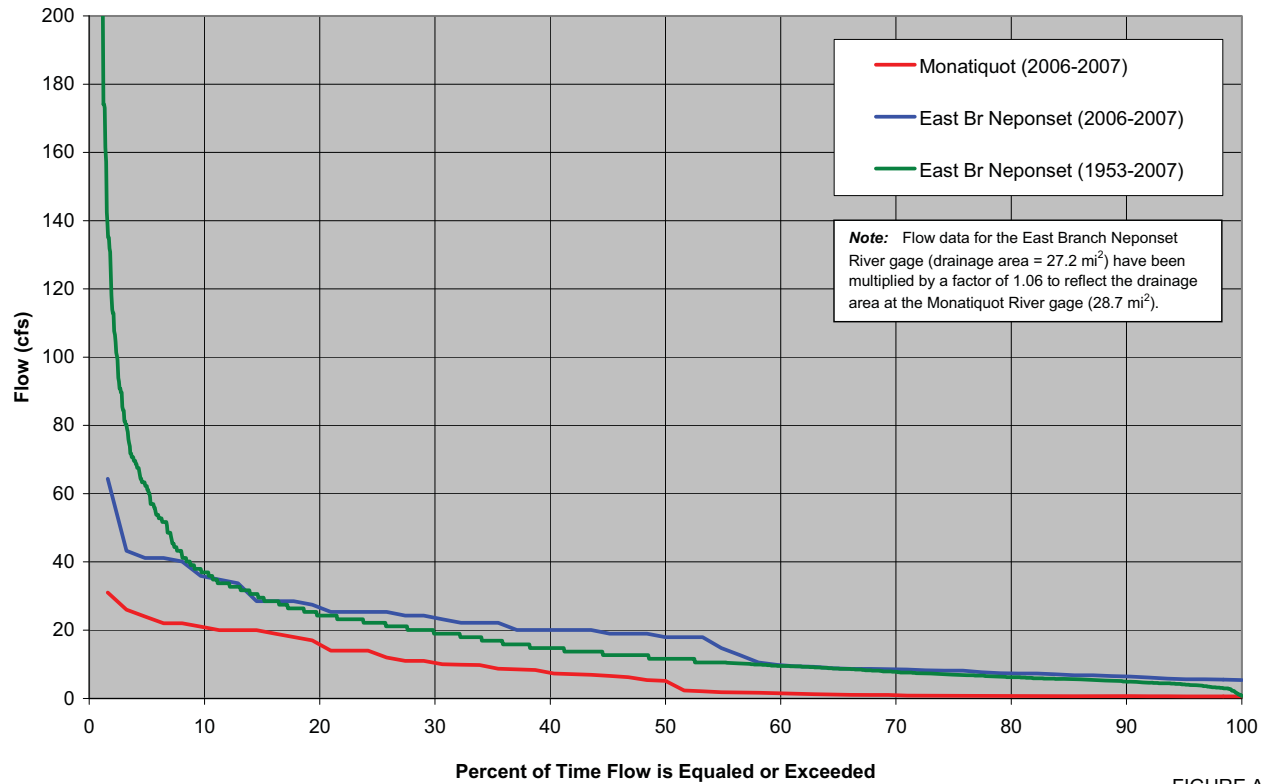


FIGURE A-17

**Regression Relationship between Monatiquot River and East Branch Neponset River
August Flows from 3/31/06 to 5/6/08**

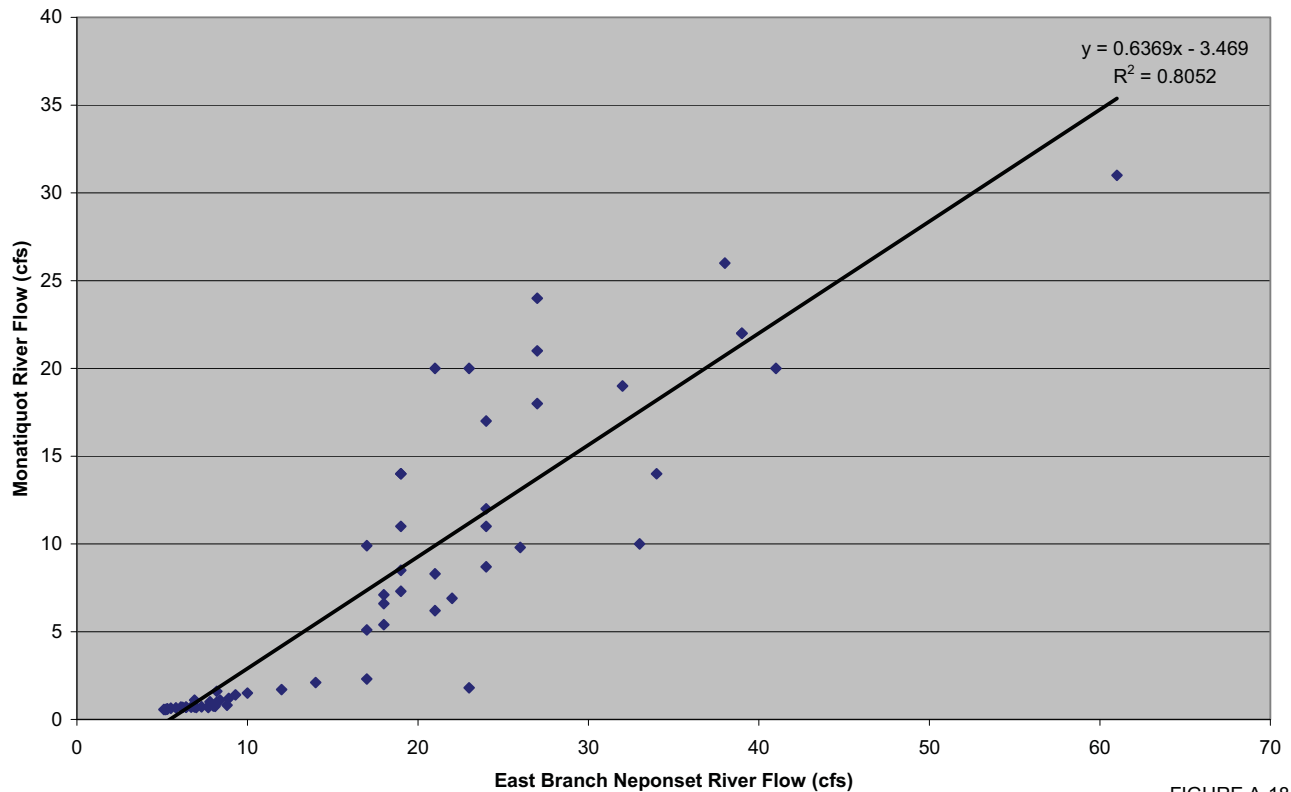


FIGURE A-18

**Comparison of September Flow Duration Curves for the
Monatiquot River (No. 01105583) and East Branch Neponset River (No. 01105500) Gages**

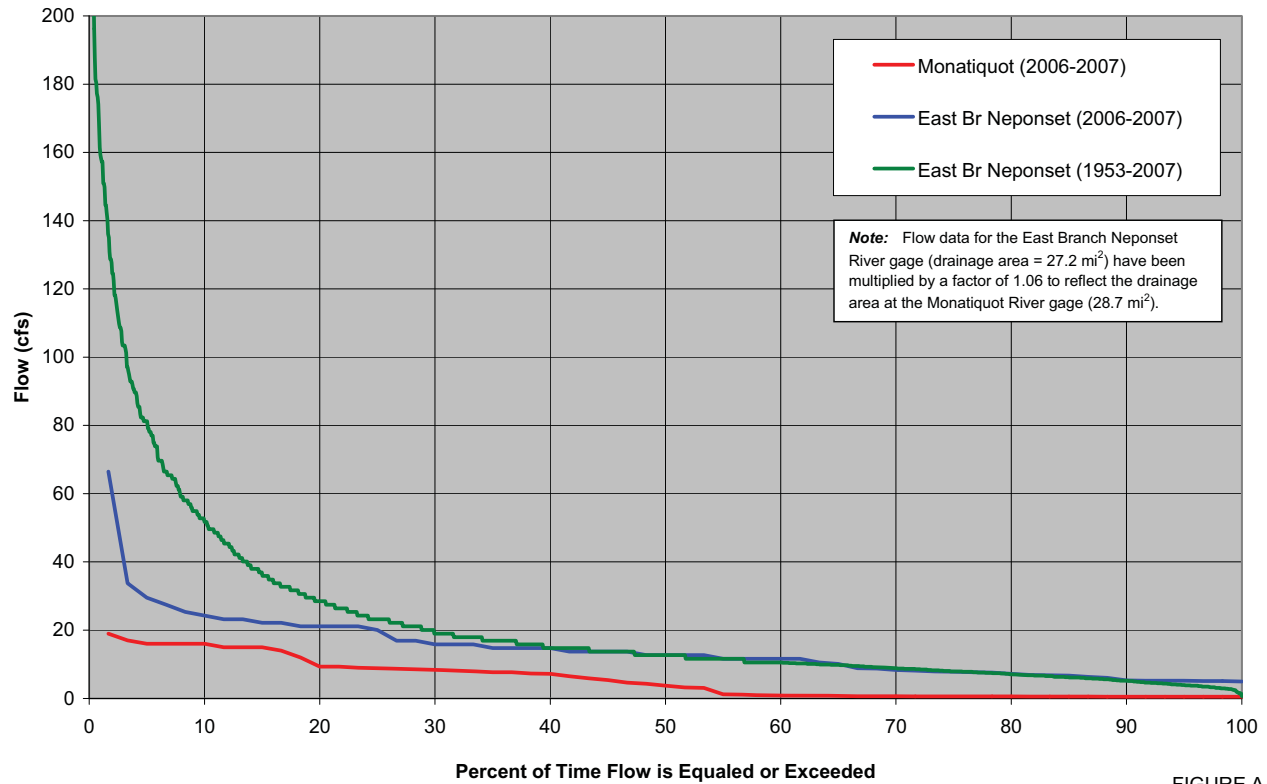


FIGURE A-19

**Regression Relationship between Monatiquot River and East Branch Neponset River
September Flows from 3/31/06 to 5/6/08**

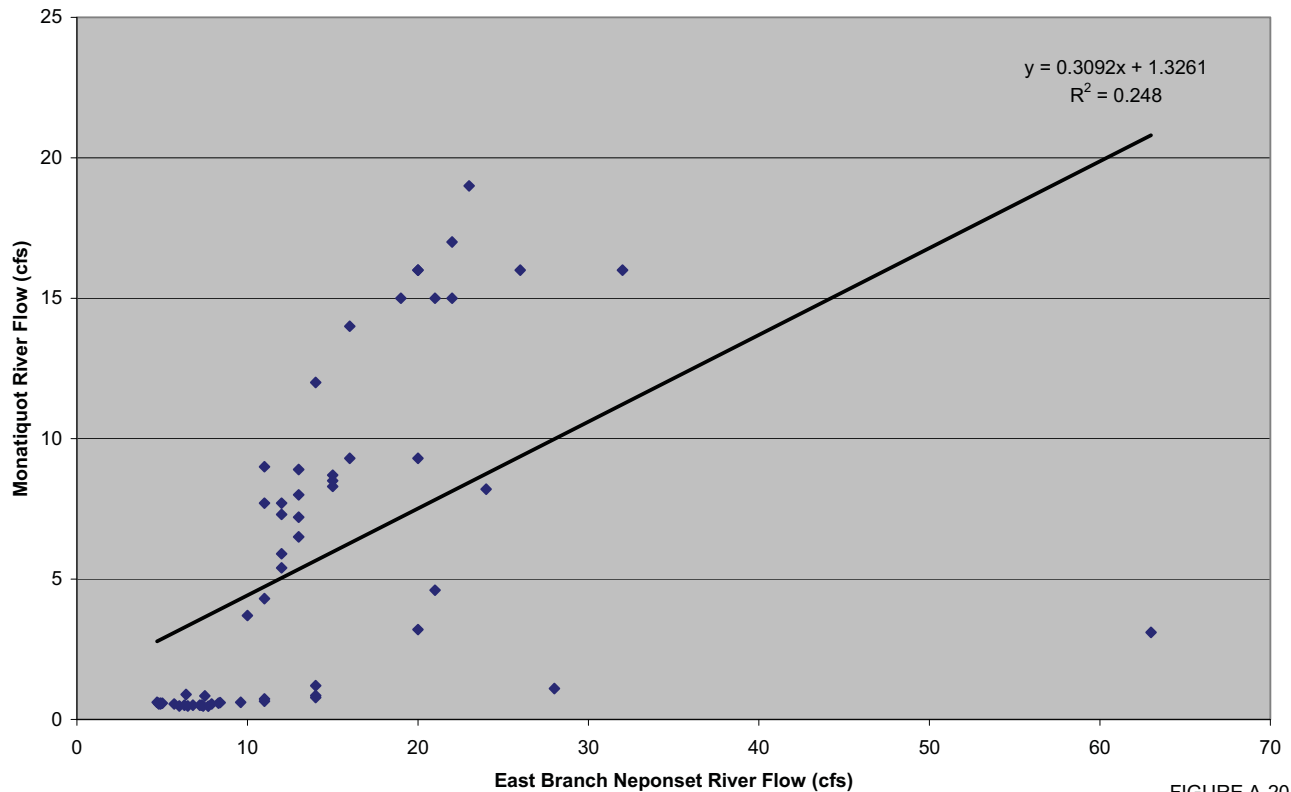


FIGURE A-20

**Comparison of October Flow Duration Curves for the
Monatiquot River (No. 01105583) and East Branch Neponset River (No. 01105500) Gages**

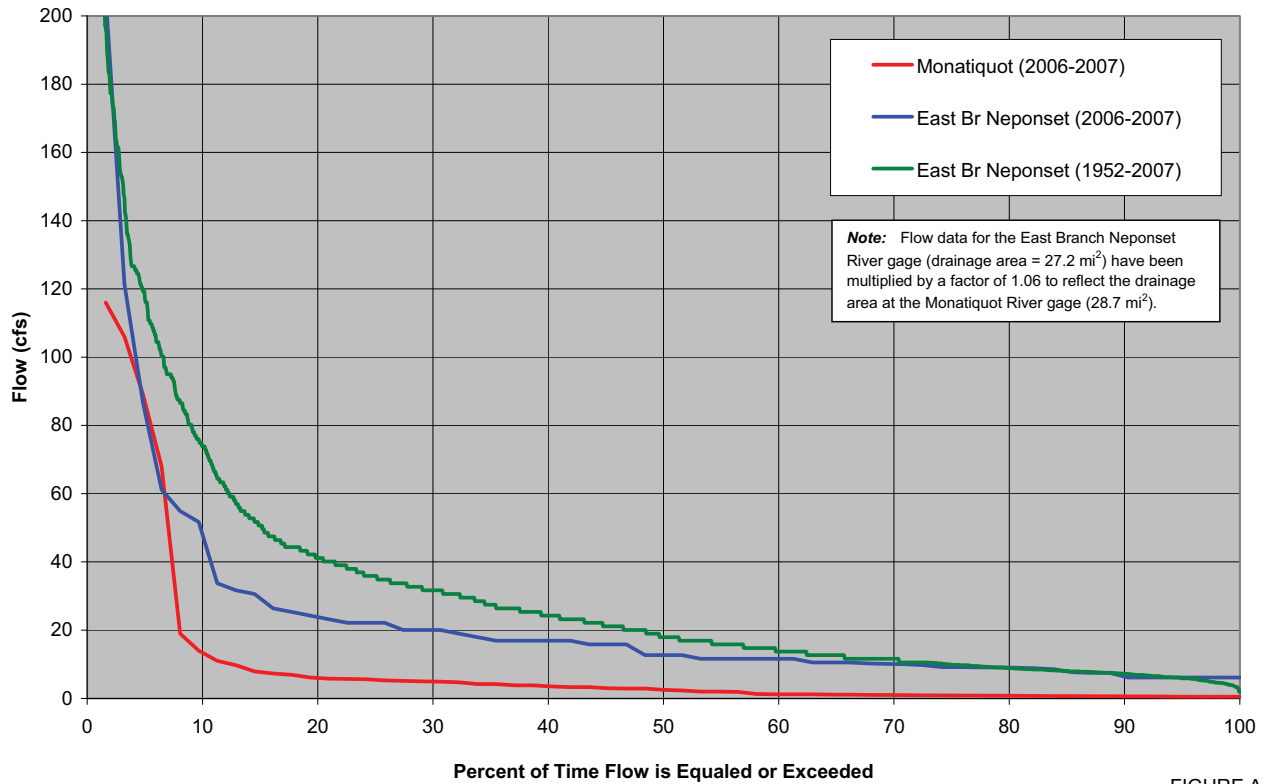


FIGURE A-21

**Regression Relationship between Monatiquot River and East Branch Neponset River
October Flows from 3/31/06 to 5/6/08**

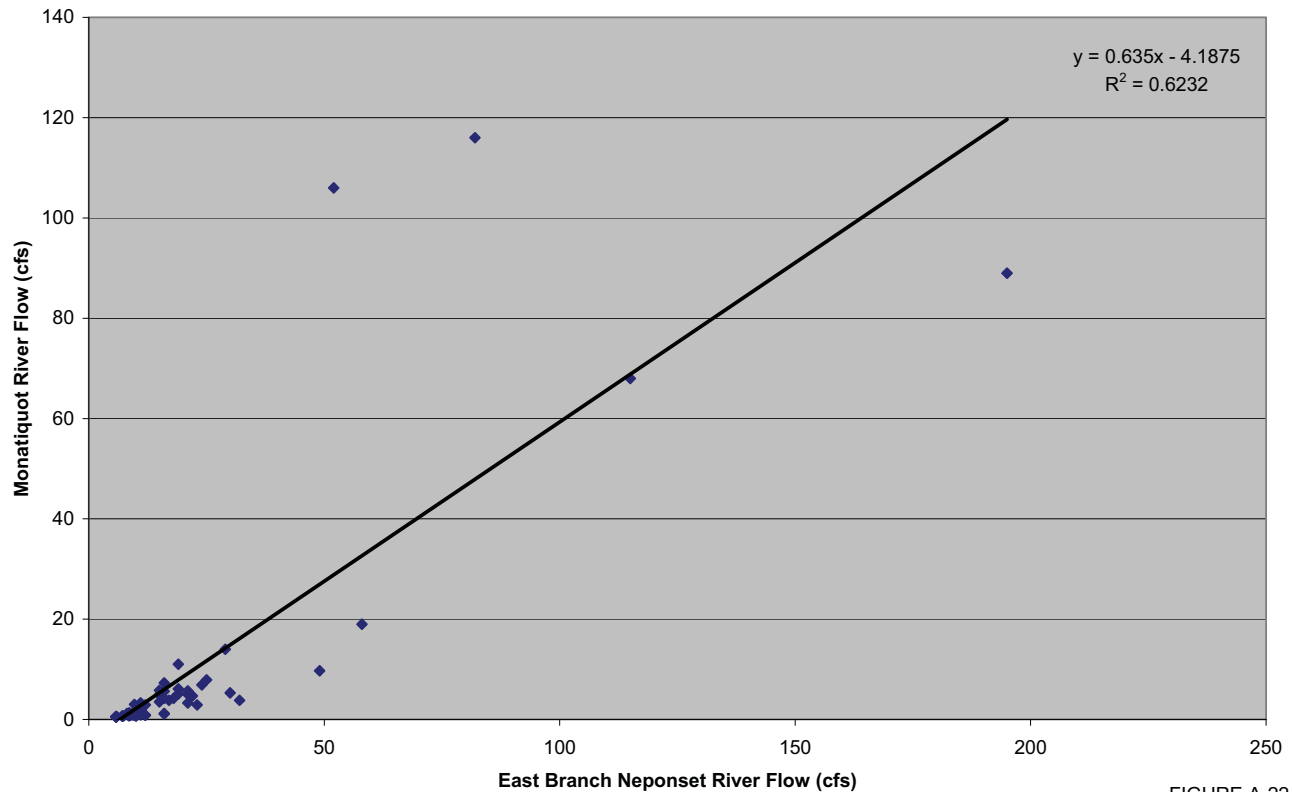


FIGURE A-22

**Comparison of November Flow Duration Curves for the
Monatiquot River (No. 01105583) and East Branch Neponset River (No. 01105500) Gages**

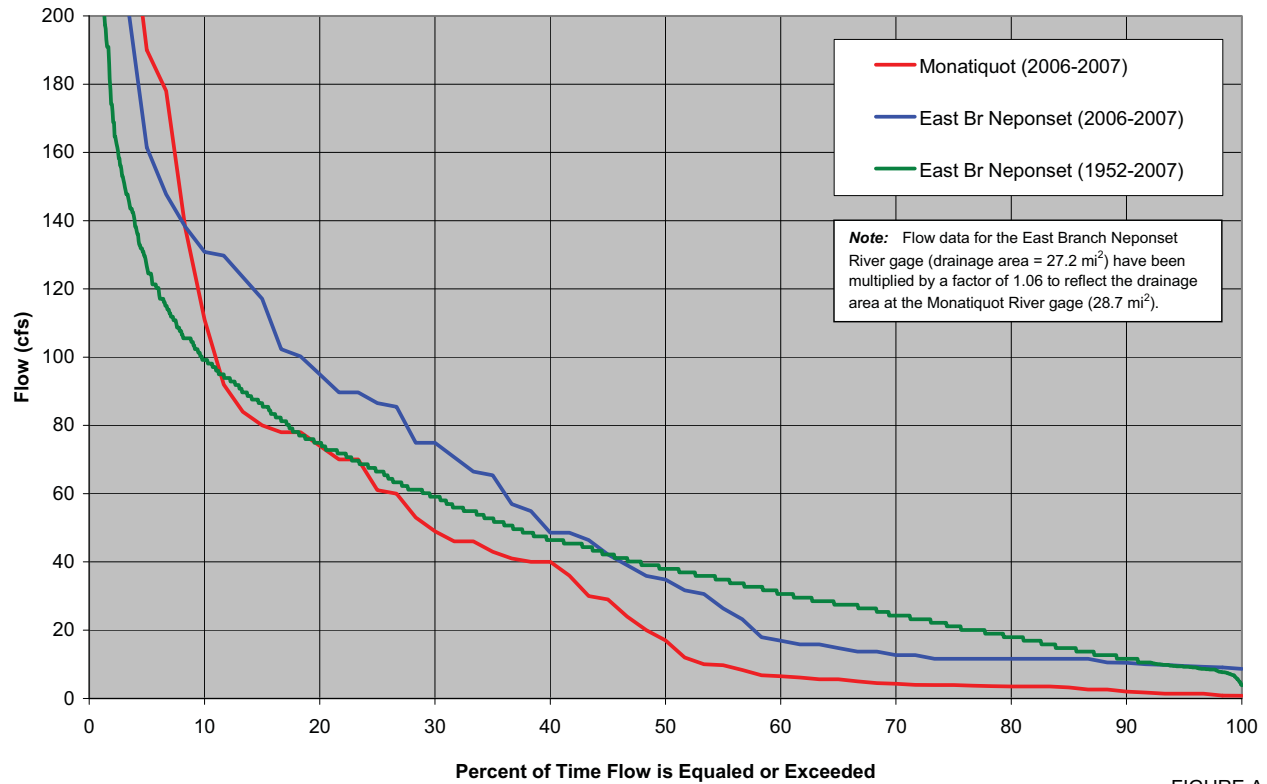


FIGURE A-23

**Regression Relationship between Monatiquot River and East Branch Neponset River
November Flows from 3/31/06 to 5/6/08**

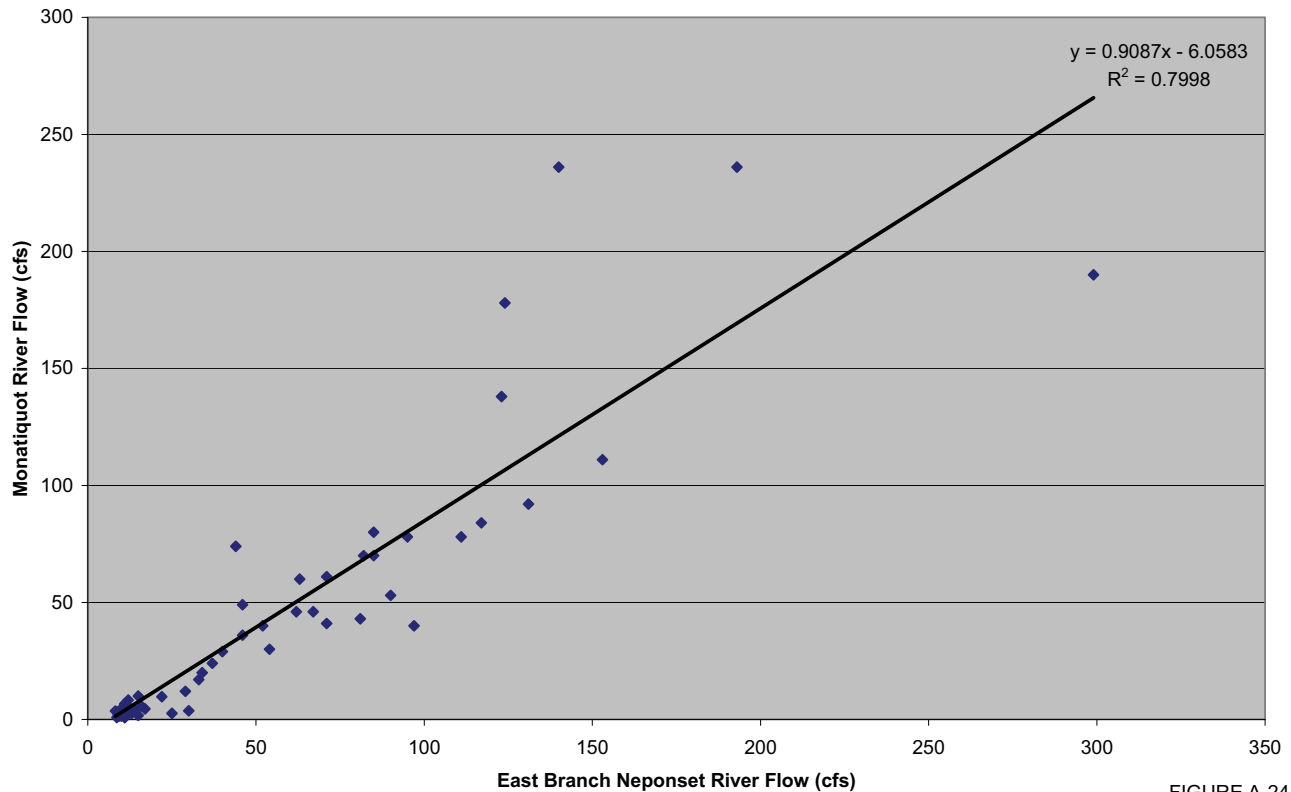


FIGURE A-24

**Comparison of December Flow Duration Curves for the
Monatiquot River (No. 01105583) and East Branch Neponset River (No. 01105500) Gages**

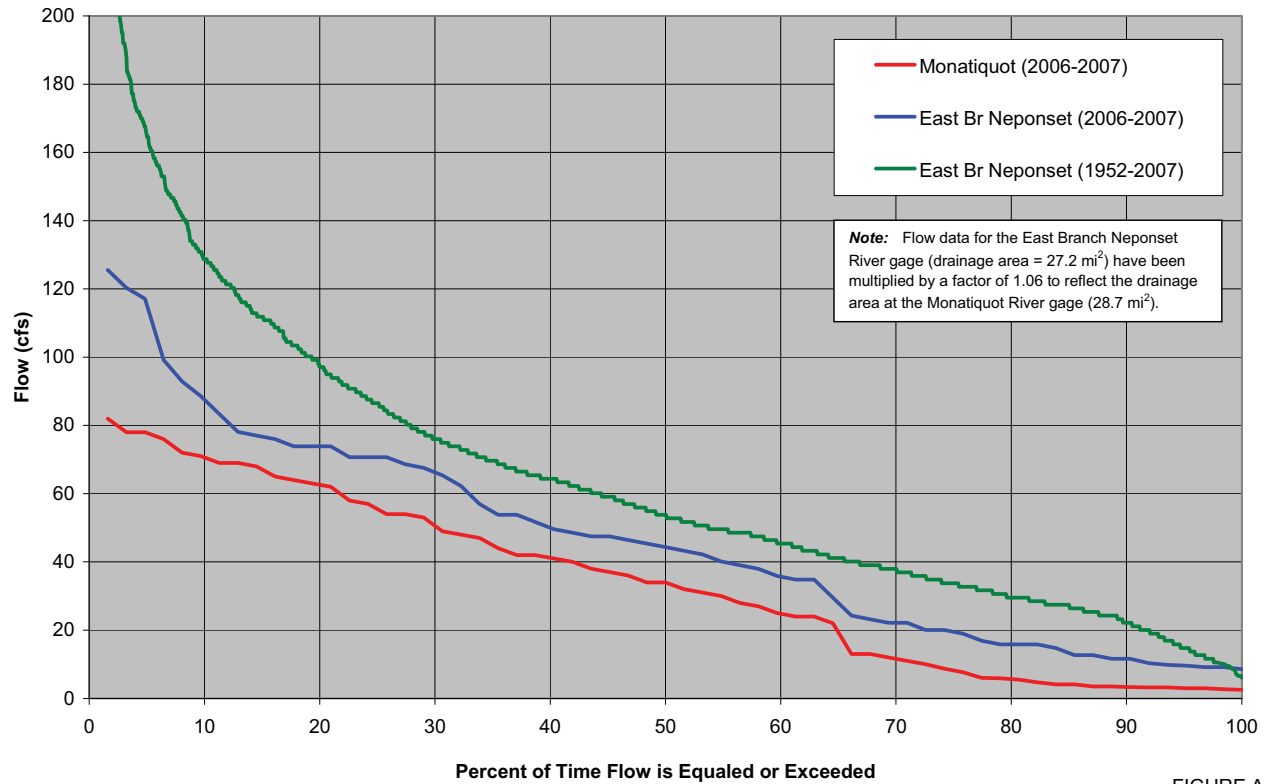


FIGURE A-25

**Regression Relationship between Monatiquot River and East Branch Neponset River
December Flows from 3/31/06 to 5/6/08**

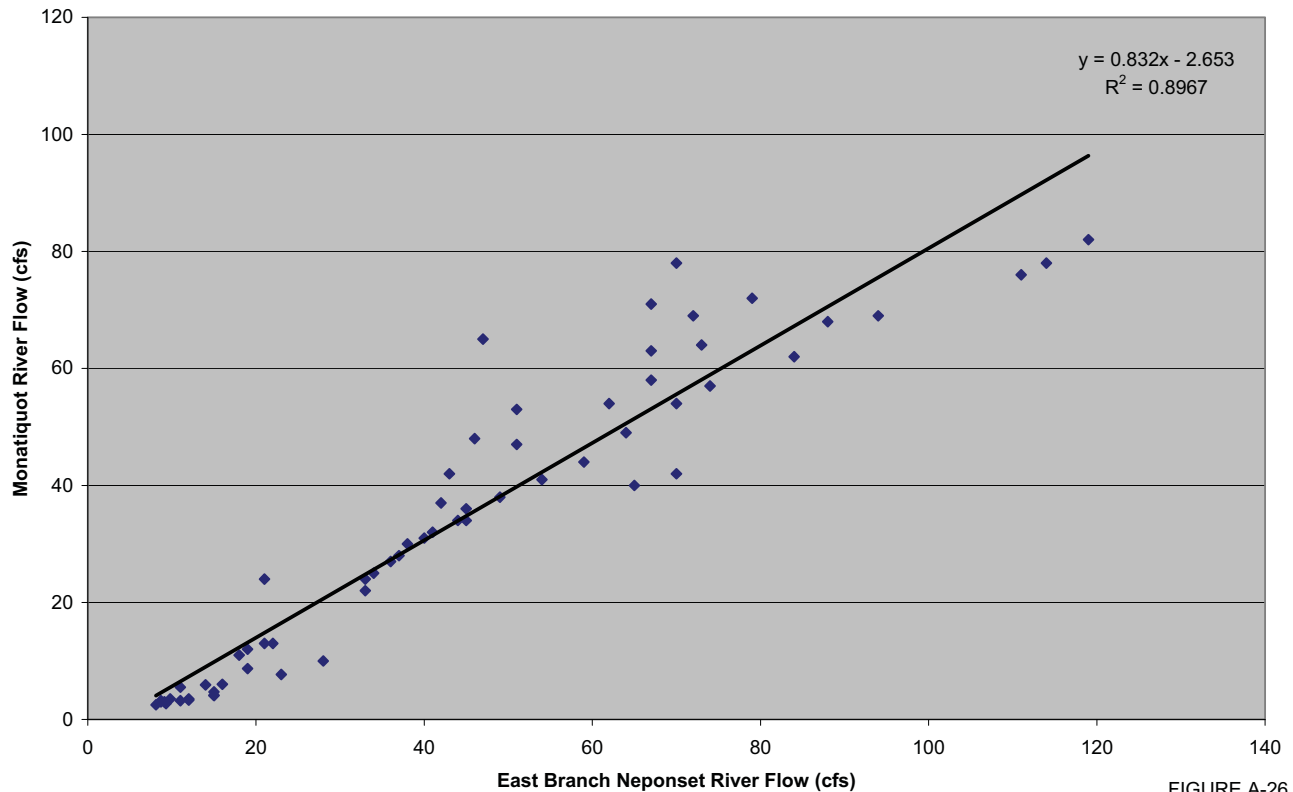


FIGURE A-26

Annual Flow Duration Curve for Great Pond Dam Outlet

Based on adjusted data from the Monatiquot River and East Branch Neponset River Gages

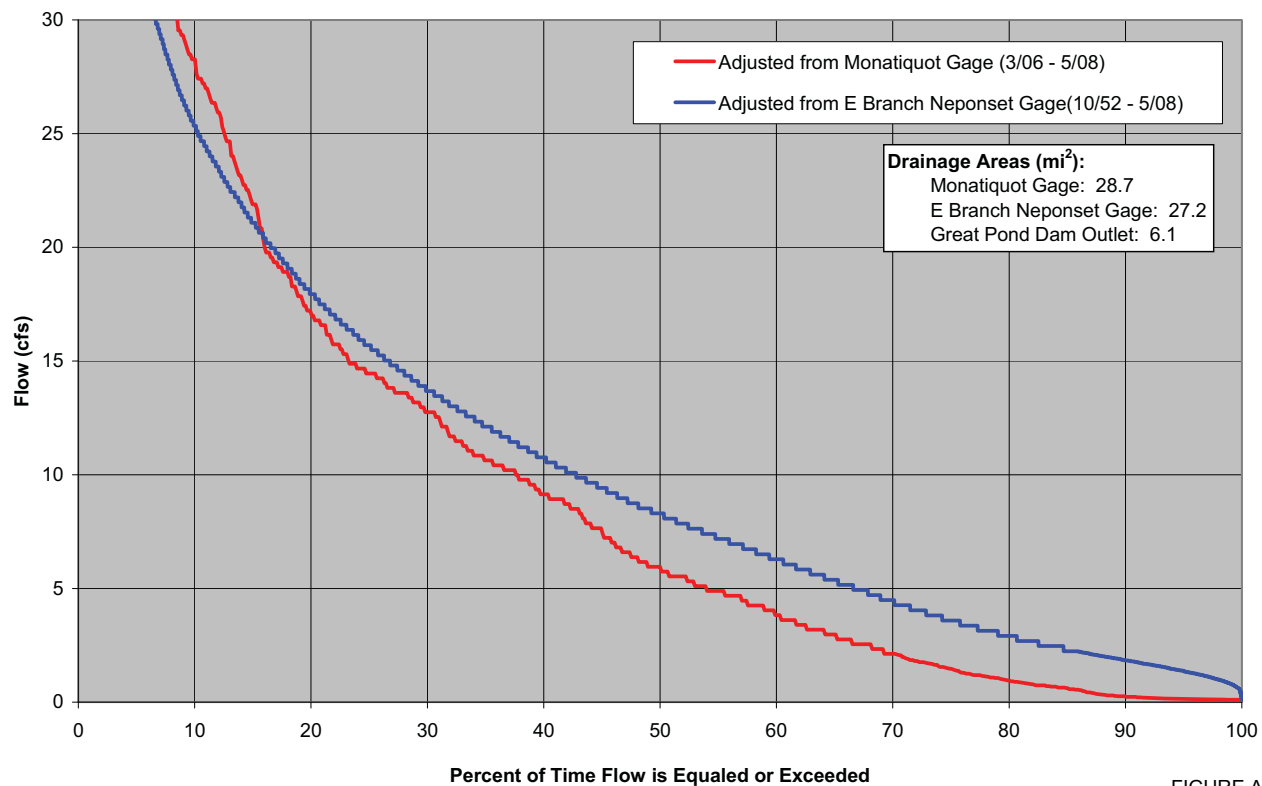


FIGURE A-27

Annual Flow Duration Curve for Sunset Lake Dam Outlet

Based on adjusted data from the Monatiquot River and East Branch Neponset River Gages

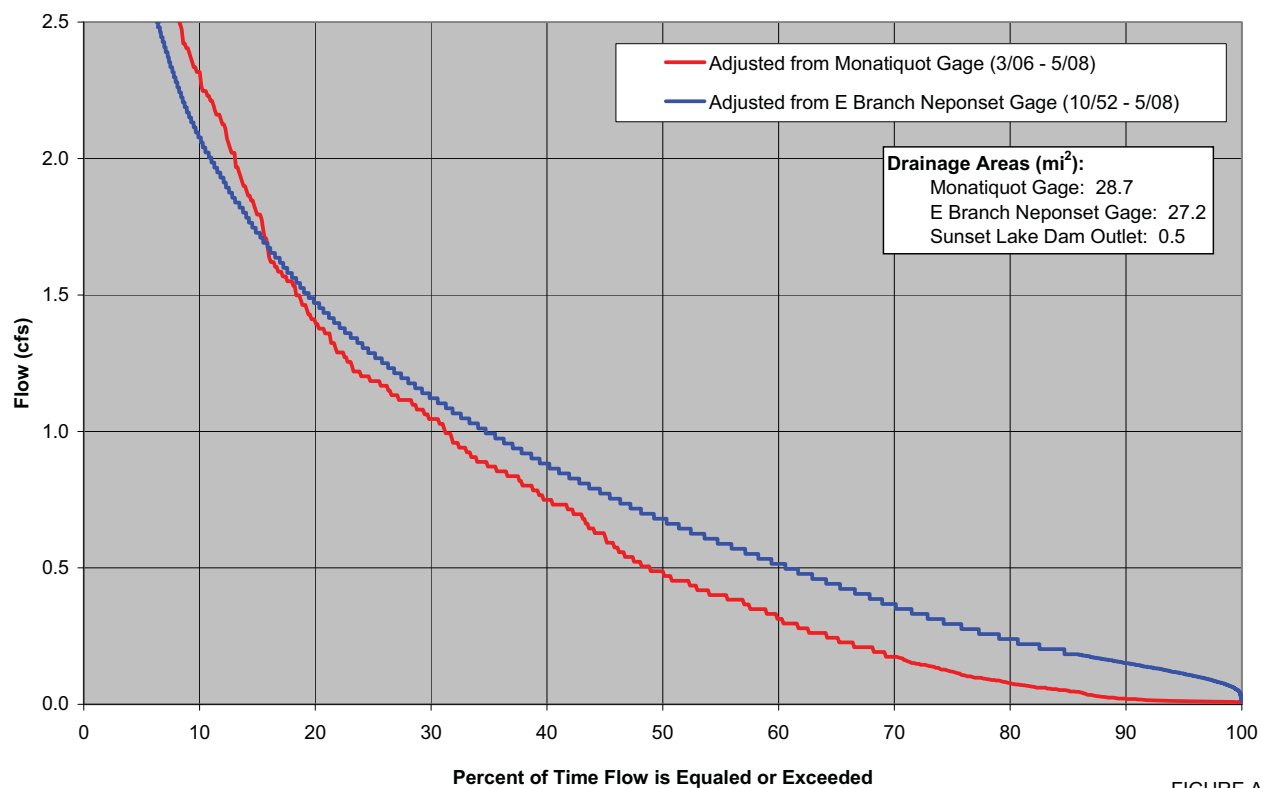


FIGURE A-28

Annual Flow Duration Curve for Farm River at Monatiquot River
 Based on adjusted data from the Monatiquot River and East Branch Neponset River Gages

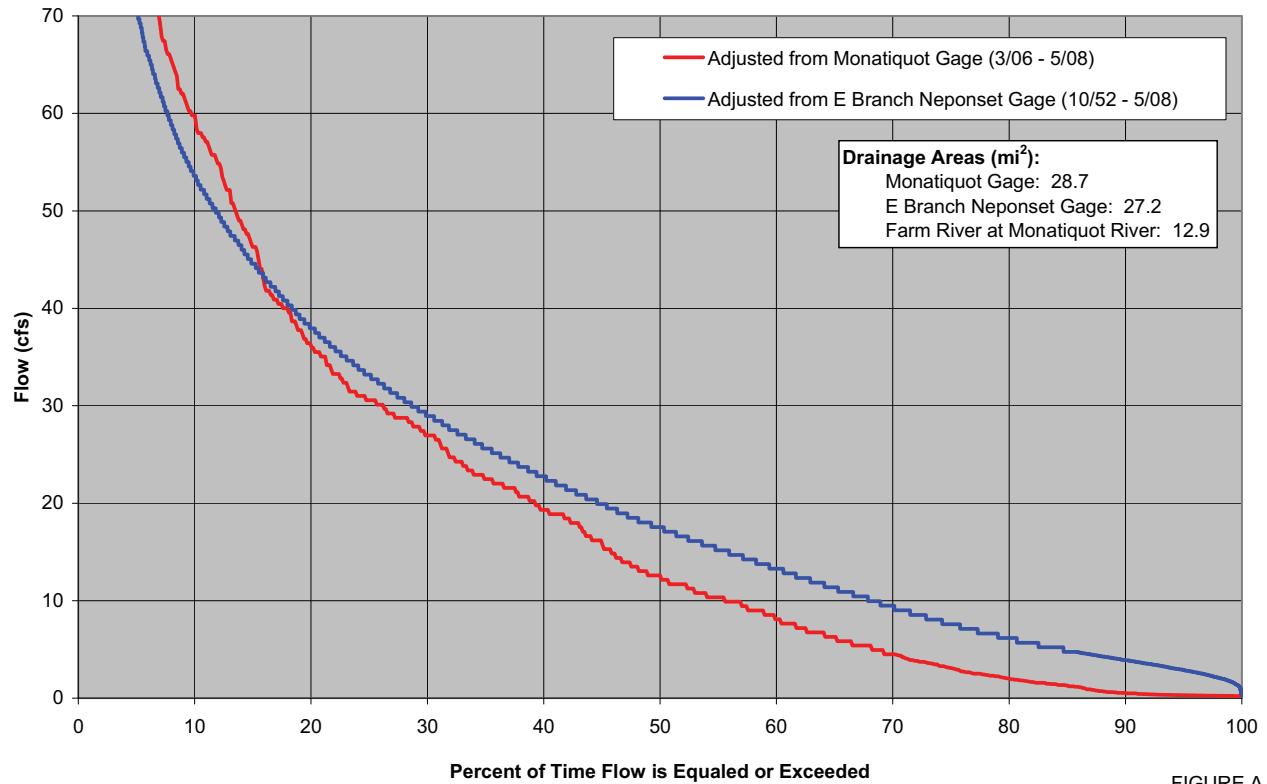


FIGURE A-29

Annual Flow Duration Curve for Cochato River at Former Diversion
 Based on adjusted data from the Monatiquot River and East Branch Neponset River Gages

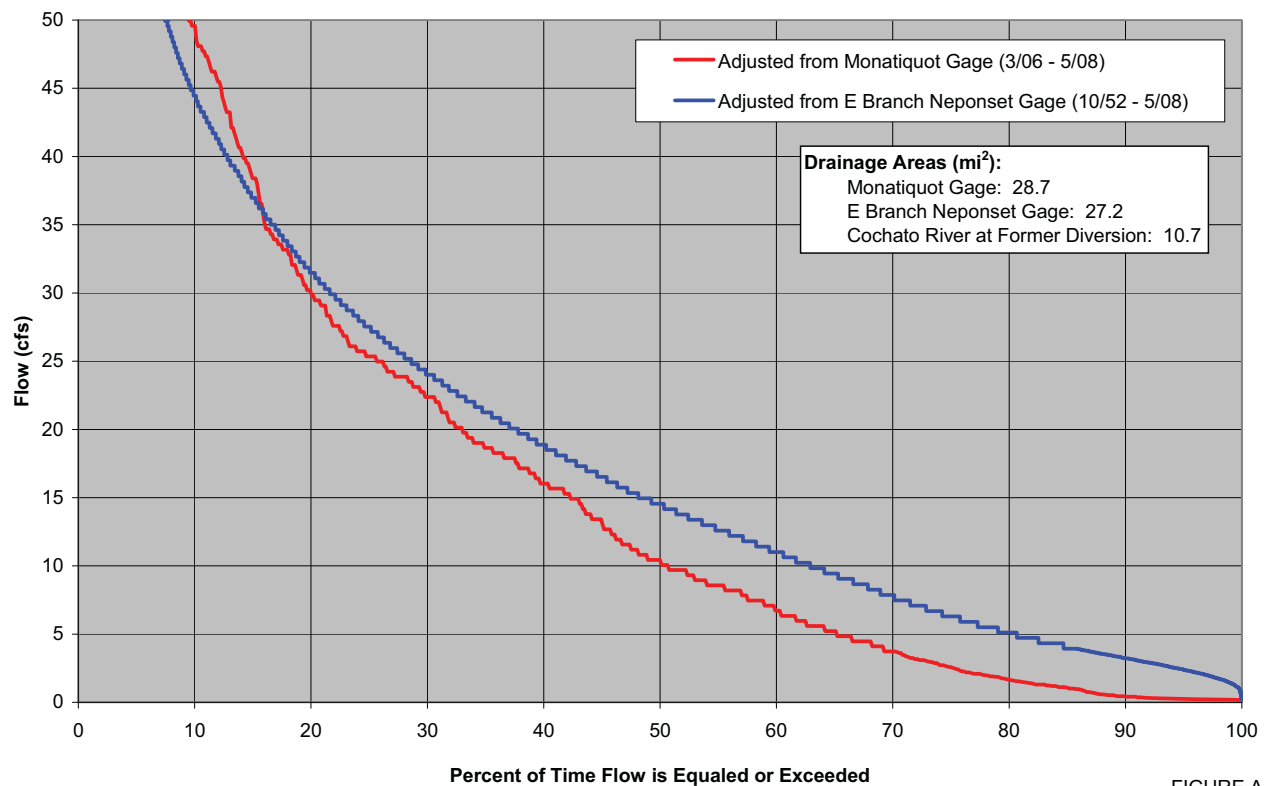


FIGURE A-30

Annual Flow Duration Curve for Cochato River Monatiquot River

Based on adjusted data from the Monatiquot River and East Branch Neponset River Gages

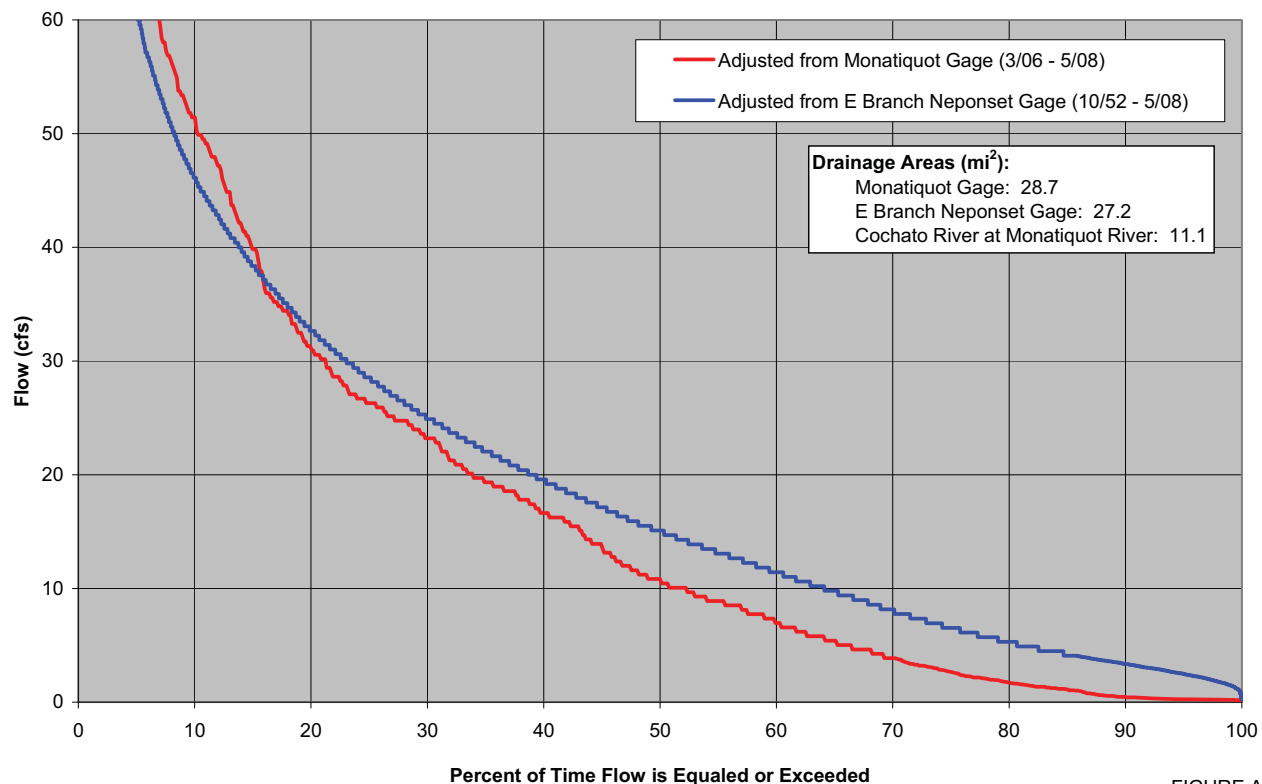


FIGURE A-31

Annual Flow Duration Curve for Monatiquot River at Hollingsworth Dam

Based on adjusted data from the Monatiquot River and East Branch Neponset River Gages

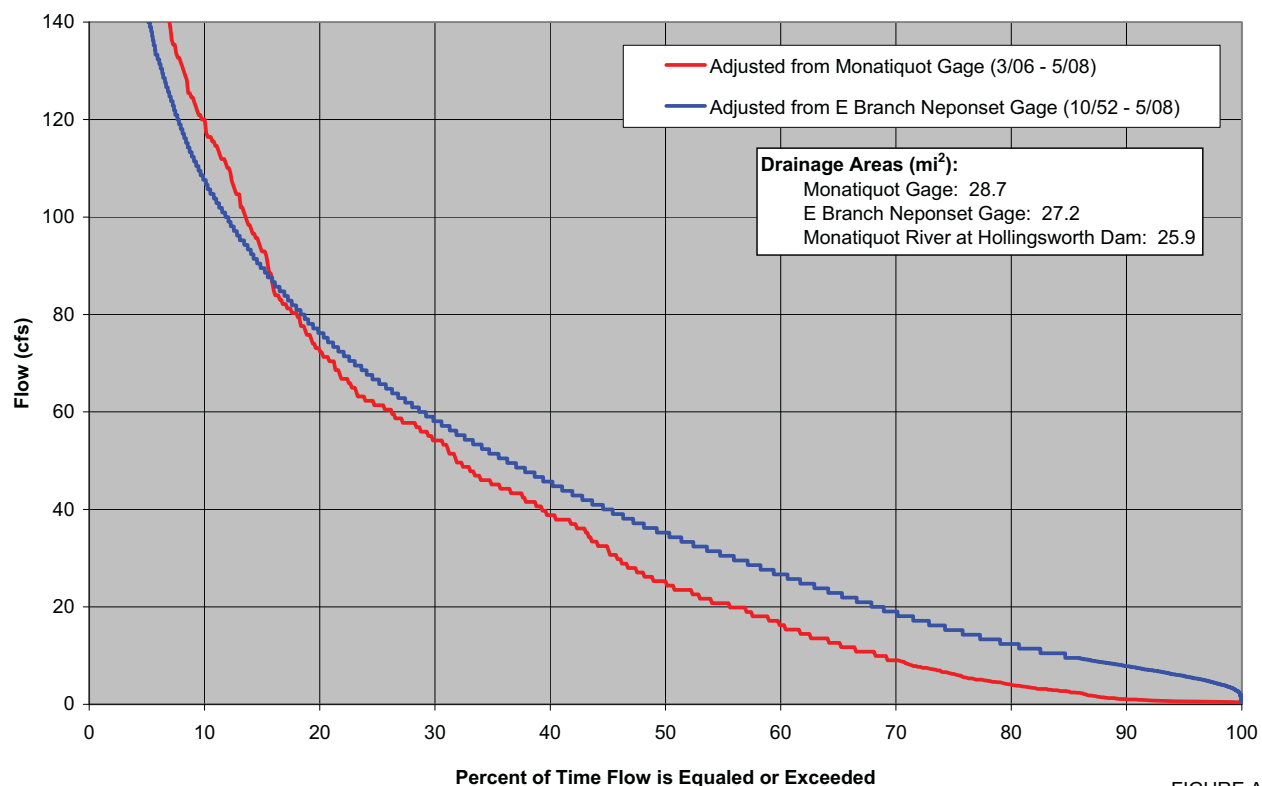


FIGURE A-32

Appendix B: Water Level Records

Table B-1: Water Level Data for Richardi Reservoir, Upper Pond, and Lower (Great) Pond from August 2005 to Present

Start Date	End Date	Report Date	Great Pond			Richardi Reservoir			Upper Pond		
			Elevation (ft)	Volume (MG)	% Full	Elevation (ft)	Volume (MG)	% Full	Elevation (ft)	Volume (MG)	% Full
8/8/2005	8/14/2005	8/15/2005	125.89	536.4	90.0%	99.62	150.4	97.0%	132.14	366.2	56.0%
8/15/2005	8/21/2005	8/22/2005	126.07	548.3	92.0%	98.91	148.8	96.0%	133.02	412.0	63.0%
8/22/2005	8/28/2005	8/29/2005	126.19	560.2	94.0%	95.12	133.3	86.0%	133.27	418.6	64.0%
8/29/2005	9/4/2005	9/5/2005	125.27	500.6	84.0%	97.29	142.6	92.0%	134.25	497.0	76.0%
9/5/2005	9/11/2005	9/12/2005	126.56	584.1	98.0%	94.29	124.0	80.0%	133.77	431.6	66.0%
9/17/2005	9/25/2005	9/26/2005	125.52	518.5	87.0%	91.87	113.2	73.0%	135.39	549.4	84.0%
9/17/2005	9/25/2005	9/26/2005	125.52	518.5	87.0%	93.62	124.0	80.0%	135.35	549.4	84.0%
9/26/2005	10/2/2005	10/3/2005	125.52	572.2	96.0%	95.62	136.4	88.0%	133.52	431.6	66.0%
10/3/2005	10/9/2005	10/10/2005	126.39	584.1	98.0%	98.95	148.8	96.0%	135.44	549.4	84.0%
10/10/2005	10/16/2005	10/17/2005	126.77	596.0	100.0%	101.62	155.0	100.0%	136.77	654.0	100.0%
10/24/2005	10/30/2005	10/31/2005	126.77	596.0	100.0%	101.62	155.0	100.0%	136.77	654.0	100.0%
3/13/2006	3/19/2006	3/20/2006	126.48	584.1	98.0%	101.62	155.0	100.0%	134.27	497.0	76.0%
3/30/2006	4/5/2006	4/6/2006	126.54	584.1	98.0%	101.62	155.0	100.0%	134.02	484.0	74.0%
4/24/2006	4/30/2006	5/1/2006	125.94	548.3	92.0%	101.62	155.0	100.0%	133.77	457.8	70.0%
5/1/2006	5/7/2006	5/8/2006	126.06	554.3	93.0%	100.32	151.9	98.0%	134.48	510.1	78.0%
5/8/2006	5/14/2006	5/15/2006	126.77	596.0	100.0%	101.62	155.0	100.0%	136.77	654.0	100.0%
9/11/2006	9/17/2006	9/18/2006	125.27	464.9	78.0%	101.62	155.0	100.0%	130.77	287.8	44.0%
10/9/2006	10/15/2006	10/16/2006	125.96	542.4	91.0%	89.62	99.2	64.0%	132.44	405.5	62.0%
11/6/2006	11/12/2006	11/13/2006	125.77	530.4	89.0%	97.29	138.0	89.0%	134.44	497.0	76.0%
11/6/2006	11/12/2006	11/13/2006	125.77	530.4	89.0%	97.29	138.0	89.0%	134.44	497.0	76.0%
11/13/2006	11/19/2006	11/20/2006	126.31	572.2	96.0%	97.29	151.9	98.0%	134.77	582.1	89.0%
6/18/2007	6/24/2007	6/25/2007	126.48	524.5	88.0%	101.62	155.0	100.0%	134.27	536.3	82.0%
		7/16/2007	126.47	572.2	96.0%	100.00	151.7	97.9%	131.77	313.9	48.0%
		7/23/2007	126.23	572.2	96.0%	95.66	134.9	87.0%	132.36	313.9	48.0%
		8/6/2007	126.35	566.2	95.0%	89.12	91.5	59.0%	133.19	313.9	48.0%
		9/7/2007	125.25	488.7	82.0%	86.62	60.5	39.0%	131.33	313.9	48.0%
		9/24/2007	125.27	500.6	84.0%	90.90	105.4	68.0%	128.27	183.1	28.0%
		10/1/2007	124.89	484.3	81.3%	91.30	110.0	71.0%	127.52	156.9	24.0%
		10/9/2007	124.68	470.8	79.0%	92.12	114.7	74.0%	126.77	130.8	20.0%
		10/15/2007	124.18	435.0	73.0%	92.62	119.3	77.0%	126.77	130.8	20.0%
		10/22/2007	124.93	482.7	81.0%	88.12	88.3	57.0%	126.27	111.1	17.0%
		10/29/2007	124.68	470.8	79.0%	85.87	58.9	38.0%	126.00	104.6	16.0%
		12/10/2007	124.24	435.0	73.0%	89.62	97.6	63.0%	125.43	91.5	14.0%
		12/24/2007	123.97	417.2	70.0%	92.62	119.4	77.0%	126.02	111.1	17.0%
		12/31/2007	124.68	464.8	78.0%	99.46	148.8	96.0%	126.93	137.3	21.0%
		12/31/2007	124.68	464.8	78.0%	99.46	148.8	96.0%	126.93	137.3	21.0%
		1/6/2008	124.68	494.6	83.0%	99.28	148.8	96.0%	128.18	183.1	28.0%
		1/15/2007	126.07	554.2	93.0%	101.62	155.0	100.0%	129.77	248.5	38.0%
		1/22/2008	126.07	584.0	98.0%	101.62	155.0	100.0%	130.93	300.8	46.0%
		1/28/2008	126.31	572.1	96.0%	100.12	151.9	98.0%	131.77	346.6	53.0%
		2/4/2008	126.31	554.2	93.0%	101.03	153.4	99.0%	132.52	385.8	59.0%
		2/25/2008	126.93	560.2	94.0%	102.37	151.7	97.9%	136.77	523.2	80.0%

Appendix C: Records from Massachusetts Dam Safety on:

- Hollingsworth Dam (also called Armstrong Dam)
- Sunset Lake Dam
- Great Pond Dam

- Hollingsworth Dam (also called Armstrong Dam)



Date: July 29th 2006

Commonwealth of Massachusetts
Department of Conservation and Recreation
Division of Parks and Recreation
251 Causeway Street
Boston, MA. 02114

Attention: Mr. William Saloma

Regarding: MA03102, Armstrong Pond Dam
Braintree

Dear Sir:

Mistry Associates, Inc. visited Armstrong Pond Dam in the Town of Braintree. The following table summarizes what we found:

Description:	Mill Pond
Length of Dam (Feet):	75
Height of Dam (Feet):	15
General Condition:	Good
Type of Dam:	Concrete Dam
Impoundment Size (Acres):	3

We also visited the town assessor's office to obtain the owner information and prepared the required registration form. Attached for your records, is the information we have compiled for this dam:

- Office of Dam Safety Dam Registration Form
- Satellite image
- Assessor's data (8 pages)
- Deed data (0 pages)
- Photographs of the dam and impoundment (5 pictures)

We thank you for giving us the opportunity to work with you. If you have any questions or need further information please do not hesitate to contact us.

Sincerely,

A handwritten signature in dark ink, appearing to read 'Nalin Mistry', is written over the printed name and title.

Nalin M. Mistry
President

Mistry Associates, Inc.

CIVIL, STRUCTURAL, MECHANICAL, ELECTRICAL & ARCHITECTURAL ENGINEERS - PLANNERS - SURVEYORS

315 MAIN STREET
READING, MASSACHUSETTS 01867

781-944-6400 • FAX: 781-944-0180 • E-MAIL: nalin@mistry.com

DCR Dam Owner Search Project
MA03102 - Armstrong Pond Dam - Braintree



Commonwealth of Massachusetts
 Department of Conservation and Recreation (DCR)
 Office of Dam Safety (ODS)
DAM REGISTRATION FORM (DRF)

Office of Dam Safety Records	
Dam Name	Armstrong Pond Dam
AKA Dam Name	
Name of impoundment	Armstrong Pond
AKA Name of Impoundment	Hollingsworth Pond-Upper Mill Pond
Location (City/Town)	Braintree
Dam Height (feet)	15
Hazard Potential Rating	
National Dam ID No.	MA03102
Section II: Owner(s) Information	
Legal Dam Owner(s) Name(s)	Hollingsworth Pond LLC c/o Messina Enterprise
Mail address	400 Franklin Street
Town/Zip	Braintree, MA 02184
Phone	781-848-5000
Other:	
Section III: Registry of Deeds Information	
Location of property on which the dam lies	Hancock Street
Registry Location (County Name)	Norfolk County
Registry of Deeds Book No	19512
Registry of Deeds Page No	160
Registry of Deeds Plan Bk/Pg No if available	C#165567
Section IV: Town/City Assessor's Office information	
Map No	1031
Section/ Block No	0
Lot No	5
Other:	
Other:	

COMMONWEALTH OF MASSACHUSETTS EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS

Department of Conservation and Recreation
 270 Causeway Street, Suite 400
 Boston, MA 02114-7115
 (617) 828-1280 (617) 828-1393 Fax



His Excellency
 Governor
 Kerry Healey
 Lt. Governor

Gordon R. Pittsford, Secretary
 Executive Office of Environmental Affairs
 Stephen M. Burroughs, Commissioner
 Department of Conservation & Recreation



Mistry Associates, Inc.
 315 Main Street - Reading, Massachusetts 01867
 781-944-6400 - FAX: 781-944-0180 - E-MAIL: nalin@mistry.com

MA03102
 Page 2 of 14

DCR Dam Owner Search Project
MA03102 - Armstrong Pond Dam - Braintree



Filename: MA03102.png



Mistry Associates, Inc.
315 Main Street - Reading, Massachusetts 01867
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MA03102
Page 3 of 14

DCR Dam Owner Search Project
MA03102 - Armstrong Pond Dam - Braintree



Filename: MA03102_Assessor_01.TIF



Mistry Associates, Inc.
 315 Main Street - Reading, Massachusetts 01867
 781-944-6400 - FAX: 781-944-0180 - E-MAIL: nalin@mistry.com

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 Page 4 of 14



MA03102
Page 5 of 14

DCR Dam Owner Search Project MA03102 - Armstrong Pond Dam - Braintree

1031
MAP

0
BLOCK

5
LOT

1 of 3
CARD

INDUSTRIAL
BRAintree

TOTAL ASSESSED: 6,288,500
(11335)

PROPERTY LOCATION

Address: 1031 0 5
HARCOCK AV, BRAintree

OWNERSHIP

Owner 1: HOLLINGSWORTH POND LLC
Owner 2: 50 METCAL ENTERPRISE
Owner 3: 140 FRANKLIN STREET
Owner 4: 140 FRANKLIN STREET
Owner 5: 140 FRANKLIN STREET

PREVIOUS ASSESSMENT

Parcel ID: 1031 0 5
Assessed Value: 6,288,500
Total Value: 6,288,500
Land Value: 2,255,500
Total Value per SQ unit Card: 14.07

IN PROCESS APPRAISAL SUMMARY

Use Code: 400
Building Value: 2,111,500
Land Value: 2,255,500
Total Value: 4,367,000

LEGAL DESCRIPTION

Parcel ID: 1031 0 5
Assessed Value: 6,288,500
Total Value: 6,288,500
Land Value: 2,255,500
Total Value per SQ unit Card: 14.07

SALES INFORMATION

Owner: HOLLINGSWORTH POND LLC
Address: 1031 0 5
Sales Date: 11/15/2023
Sales Price: 6,288,500

ACTIVITY INFORMATION

Date: 11/15/2023
Result: 1031 0 5
Comments: 1031 0 5

PROPERTY FACTORS

Item Code: 100
Description: 100

LAND SECTION (First 7 lines only)

Item Code: 100
Description: 100

BUILDING PERMITS

Item Code: 100
Description: 100

OTHER ASSESSMENTS

Item Code: 100
Description: 100

LAND SECTION (First 7 lines only)

Item Code: 100
Description: 100

BUILDING PERMITS

Item Code: 100
Description: 100

PROPERTY FACTORS

Item Code: 100
Description: 100

LAND SECTION (First 7 lines only)

Item Code: 100
Description: 100

BUILDING PERMITS

Item Code: 100
Description: 100

OTHER ASSESSMENTS

Item Code: 100
Description: 100

LAND SECTION (First 7 lines only)

Item Code: 100
Description: 100

BUILDING PERMITS

Item Code: 100
Description: 100

Filename: MA03102_Assessor_03.tif

Filename: MA03102_Assessor_05.tif

[illegible]

Sketch of a rectangular building layout. The main rectangle has a width of 41 and a height of 42. A small rectangular extension is attached to the right side, with a width of 10 and a height of 10. The extension contains a smaller rectangle with a width of 8 and a height of 10, labeled "Cup (10x10)". The main rectangle is labeled "S/L F/L (87x41)" in the center. The left side of the main rectangle is labeled "F/L (176)" and "41". The top side of the main rectangle is labeled "42". The right side of the main rectangle is labeled "42". The bottom side of the main rectangle is labeled "41". A small rectangular extension is attached to the right side, with a width of 10 and a height of 10. The extension contains a smaller rectangle with a width of 8 and a height of 10, labeled "Cup (10x10)". The main rectangle is labeled "S/L F/L (87x41)" in the center. The left side of the main rectangle is labeled "F/L (176)" and "41". The top side of the main rectangle is labeled "42". The right side of the main rectangle is labeled "42". The bottom side of the main rectangle is labeled "41". A small rectangular extension is attached to the right side, with a width of 10 and a height of 10. The extension contains a smaller rectangle with a width of 8 and a height of 10, labeled "Cup (10x10)".

[illegible]

Filename: MA03102_Assessor_06.tif

DCR Dam Owner Search Project

MA03102 - Armstrong Pond Dam - Braintree

1031 MAP 0 BLOCK 5 LOT

PROPERTY LOCATION
No. 0 AIN
HANCOCK AV BRAINTREE

OWNERSHIP
Owner 1: HOLLANDWORTH POND LLC
Owner 2: CO METSIA ENTERPRISES
Dated 3
Street 1: 400 FRANKLIN STREET
Street 2:
Town/City: BRAINTREE
State/Zip: MA 01914
Parcel ID: 103100

PREVIOUS OWNER
Owner 1:
Owner 2:
Street 1:
Town/City:
State/Zip:

TOTAL ASSESSED: 6,288,500 (1335)

3 of 3 COMMERCIAL CARD

Braintree

IN PROCESS APPRAISAL SUMMARY
User Code: 430
Building Value: 30,700
Land Size: 0.000
Land Value: 30,700
Total Value: 30,700

Legal Description
Estimated Lot Size: 30,700
Total Land: 6,288,500
Land Unit Type: (Parcel) 14.90
Total Value per SQ and Acre: 32.02

PREVIOUS ASSESSMENT
Tax Yr: 104
Col: 104
Assess Value: 30,700
Land Value: 30,700
Total Value: 30,700

SALES INFORMATION
Comment:
Legal Ref:
Type:
Date:
Yrd Area:
Land Size:
Land Value:
Total Value:
Account Value:

ACTIVITY INFORMATION
Date:
By:
Name:
2003 STEVE

1031 MAP 0 BLOCK 5 LOT

PROPERTY LOCATION
No. 0 AIN
HANCOCK AV BRAINTREE

OWNERSHIP
Owner 1: HOLLANDWORTH POND LLC
Owner 2: CO METSIA ENTERPRISES
Dated 3
Street 1: 400 FRANKLIN STREET
Street 2:
Town/City: BRAINTREE
State/Zip: MA 01914
Parcel ID: 103100

PREVIOUS OWNER
Owner 1:
Owner 2:
Street 1:
Town/City:
State/Zip:

1031 MAP 0 BLOCK 5 LOT

PROPERTY LOCATION
No. 0 AIN
HANCOCK AV BRAINTREE

OWNERSHIP
Owner 1: HOLLANDWORTH POND LLC
Owner 2: CO METSIA ENTERPRISES
Dated 3
Street 1: 400 FRANKLIN STREET
Street 2:
Town/City: BRAINTREE
State/Zip: MA 01914
Parcel ID: 103100

PREVIOUS OWNER
Owner 1:
Owner 2:
Street 1:
Town/City:
State/Zip:

TOTAL ASSESSED: 6,288,500 (1335)

3 of 3 COMMERCIAL CARD

Braintree

IN PROCESS APPRAISAL SUMMARY
User Code: 430
Building Value: 30,700
Land Size: 0.000
Land Value: 30,700
Total Value: 30,700

Legal Description
Estimated Lot Size: 30,700
Total Land: 6,288,500
Land Unit Type: (Parcel) 14.90
Total Value per SQ and Acre: 32.02

PREVIOUS ASSESSMENT
Tax Yr: 104
Col: 104
Assess Value: 30,700
Land Value: 30,700
Total Value: 30,700

SALES INFORMATION
Comment:
Legal Ref:
Type:
Date:
Yrd Area:
Land Size:
Land Value:
Total Value:
Account Value:

ACTIVITY INFORMATION
Date:
By:
Name:
2003 STEVE

1031 MAP 0 BLOCK 5 LOT

PROPERTY LOCATION
No. 0 AIN
HANCOCK AV BRAINTREE

OWNERSHIP
Owner 1: HOLLANDWORTH POND LLC
Owner 2: CO METSIA ENTERPRISES
Dated 3
Street 1: 400 FRANKLIN STREET
Street 2:
Town/City: BRAINTREE
State/Zip: MA 01914
Parcel ID: 103100

PREVIOUS OWNER
Owner 1:
Owner 2:
Street 1:
Town/City:
State/Zip:

1031 MAP 0 BLOCK 5 LOT

PROPERTY LOCATION
No. 0 AIN
HANCOCK AV BRAINTREE

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Dated 3
Street 1: 400 FRANKLIN STREET
Street 2:
Town/City: BRAINTREE
State/Zip: MA 01914
Parcel ID: 103100

PREVIOUS OWNER
Owner 1:
Owner 2:
Street 1:
Town/City:
State/Zip:

TOTAL ASSESSED: 6,288,500 (1335)

3 of 3 COMMERCIAL CARD

Braintree

IN PROCESS APPRAISAL SUMMARY
User Code: 430
Building Value: 30,700
Land Size: 0.000
Land Value: 30,700
Total Value: 30,700

Legal Description
Estimated Lot Size: 30,700
Total Land: 6,288,500
Land Unit Type: (Parcel) 14.90
Total Value per SQ and Acre: 32.02

PREVIOUS ASSESSMENT
Tax Yr: 104
Col: 104
Assess Value: 30,700
Land Value: 30,700
Total Value: 30,700

SALES INFORMATION
Comment:
Legal Ref:
Type:
Date:
Yrd Area:
Land Size:
Land Value:
Total Value:
Account Value:

ACTIVITY INFORMATION
Date:
By:
Name:
2003 STEVE

1031 MAP 0 BLOCK 5 LOT

PROPERTY LOCATION
No. 0 AIN
HANCOCK AV BRAINTREE

OWNERSHIP
Owner 1: HOLLANDWORTH POND LLC
Owner 2: CO METSIA ENTERPRISES
Dated 3
Street 1: 400 FRANKLIN STREET
Street 2:
Town/City: BRAINTREE
State/Zip: MA 01914
Parcel ID: 103100

PREVIOUS OWNER
Owner 1:
Owner 2:
Street 1:
Town/City:
State/Zip:

1031 MAP 0 BLOCK 5 LOT

PROPERTY LOCATION
No. 0 AIN
HANCOCK AV BRAINTREE

OWNERSHIP
Owner 1: HOLLANDWORTH POND LLC
Owner 2: CO METSIA ENTERPRISES
Dated 3
Street 1: 400 FRANKLIN STREET
Street 2:
Town/City: BRAINTREE
State/Zip: MA 01914
Parcel ID: 103100

PREVIOUS OWNER
Owner 1:
Owner 2:
Street 1:
Town/City:
State/Zip:

TOTAL ASSESSED: 6,288,500 (1335)

3 of 3 COMMERCIAL CARD

Braintree

IN PROCESS APPRAISAL SUMMARY
User Code: 430
Building Value: 30,700
Land Size: 0.000
Land Value: 30,700
Total Value: 30,700

Legal Description
Estimated Lot Size: 30,700
Total Land: 6,288,500
Land Unit Type: (Parcel) 14.90
Total Value per SQ and Acre: 32.02

PREVIOUS ASSESSMENT
Tax Yr: 104
Col: 104
Assess Value: 30,700
Land Value: 30,700
Total Value: 30,700

SALES INFORMATION
Comment:
Legal Ref:
Type:
Date:
Yrd Area:
Land Size:
Land Value:
Total Value:
Account Value:

ACTIVITY INFORMATION
Date:
By:
Name:
2003 STEVE

1031 MAP 0 BLOCK 5 LOT

PROPERTY LOCATION
No. 0 AIN
HANCOCK AV BRAINTREE

OWNERSHIP
Owner 1: HOLLANDWORTH POND LLC
Owner 2: CO METSIA ENTERPRISES
Dated 3
Street 1: 400 FRANKLIN STREET
Street 2:
Town/City: BRAINTREE
State/Zip: MA 01914
Parcel ID: 103100

PREVIOUS OWNER
Owner 1:
Owner 2:
Street 1:
Town/City:
State/Zip:

Filename: MA03102_Assessor_07.tif



Mistry Associates, Inc.
315 Main Street - Reading, Massachusetts 01867
781-944-6400 - FAX: 781-944-0180 - E-MAIL: nalin@mistry.com

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DCR Dam Owner Search Project
MA03102 - Armstrong Pond Dam - Braintree



Filename: MA03102-00.JPG



Filename: MA03102-01.JPG



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MA03102
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DCR Dam Owner Search Project
MA03102 - Armstrong Pond Dam - Braintree



Filename: MA03102-02.JPG



Filename: MA03102-03.JPG



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315 Main Street - Reading, Massachusetts 01867
781-944-6400 - FAX: 781-944-0180 - E-MAIL: na1in@mistry.com

MA03102
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DCR Dam Owner Search Project
MA03102 - Armstrong Pond Dam - Braintree



Filename: MA03102-04.JPG



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MA03102
Page 14 of 14



FUSS & O'NEILL

Disciplines to Deliver

June 16, 2006

Mr. Jerzy Pietrzak
Office of Dam Safety
John Augustus Hall
180 Beaman Street
West Boylston, MA 01583

RE: **Armstrong Pond Dam-- Dam # MA03102**
Braintree, MA
Jurisdictional Determination

Dear Mr. Pietrzak:

Fuss & O'Neill, Inc. made a field visit to the **Armstrong Pond Dam** in order to determine the regulatory jurisdiction of the structure as authorized by DCR under P06-2369-9B. The purpose of this letter is to report our findings and provide our recommendation to the Office of Dam Safety that the structure be considered a **jurisdictional dam**.

As part of this effort, we contacted the registered owner of the dam to schedule our site visit and to confirm the location of their dam. We visited the site to measure the structural and hydraulic heights, take photographs, and prepare a field sketch. We also reviewed the downstream area to assist us with our hazard determination.

Our jurisdictional determination was based upon a comparison of the field data collected to the criteria established in Chapter 253 Section 44-48 and Chapter 302 CMR 10.06(2) through (4) for size and hazard potential classification. Factors such as height, type of structure, volume of impoundment, and hazard classification were taken into consideration as part of our assessment of the structure. Additionally, any barrier or appurtenant works that was found to have a size classification of small, a hazard classification of low, and used for agriculture was determined to be Non-jurisdictional.

We determined this to be a jurisdictional dam based on the maximum impoundment size of 51.7 acre-feet, the structural height of 25 feet, and the suggested hazard class of High.

78 Interstate Drive
West Springfield, MA
01089

T (413) 452-0445
(800) 286-2469
F (413) 846-0497

www.FandO.com

*Massachusetts
Connecticut
New York
Rhode Island
North Carolina
South Carolina*

Attached is the completed Jurisdiction Determination Form, along with a MassGIS topographic location map, site photographs, and a field sketch. If you have any questions regarding this determination, please do not hesitate to contact us.

Sincerely,

Tom DeSantos, P.E.
Project Manager

Philip W. Moreschi, P.E.
Vice President

Attachments

c: William Salomaa, DCR

*JURISDICTIONAL
AT CLASS I*

12/27

Commonwealth of Massachusetts
Department of Conservation and Recreation (DCR)
Office of Dam Safety (ODS)

For Office of Dam Safety Records - Jurisdiction Verification Form

Consultant Firm Name: Fuss & O'Neill, Inc. Consultant Staff: Theresa Phillips

Date: June 23, 2006 Town: Braintree Name of dam: Armstrong Pond Dam

National Dam ID Number: MA03102 State ID Number: 6-11-40-3

Structural Height of Dam: (measured vertical height of dam
as measured from streambed at downstream
toe to crest of dam) 25 feet

Maximum Size of Impoundment: (estimated volume in acre
feet of pool at top of dam elevation) 51.7 acre-feet

Hydraulic Height of Dam: (measured vertical height of normal
pool impoundment from streambed at downstream toe to
Spillway Crest) 15 feet

Normal Pool Size of Impoundment: (estimated volume in acre
feet of pool at spillway crest elevation) 31.0 acre-feet

Dam Location Lat. 42.19601103 Long. -71.0045174

Consultant Recommendation: (mark with X)
Does the dam meet the definition of a jurisdictional dam in accordance with MGL Chapter 253 Section 44 - 48 and 302
CMR 10.00 Dam Safety Regulations? ☒ yes ☐ no

Suggested Hazard Potential Class: ☒ High ☐ Significant ☐ Low

Check here if this statement applies: ☐ The Suggested Hazard Potential Class is based upon a cursory review of the limited
information available during this assignment. The suggested class is not intended to be an actual recommended classification of the
structure. Additional study is necessary to establish the record Hazard Potential Class.

Additional Comments: We determined this to be a jurisdictional dam based on the maximum impoundment size of
51.7 acre-feet, the structural height of 25 feet, and the suggested hazard class of High

Consultant Signature: Theresa Phillips June 16, 2006
Title: Project Manager date

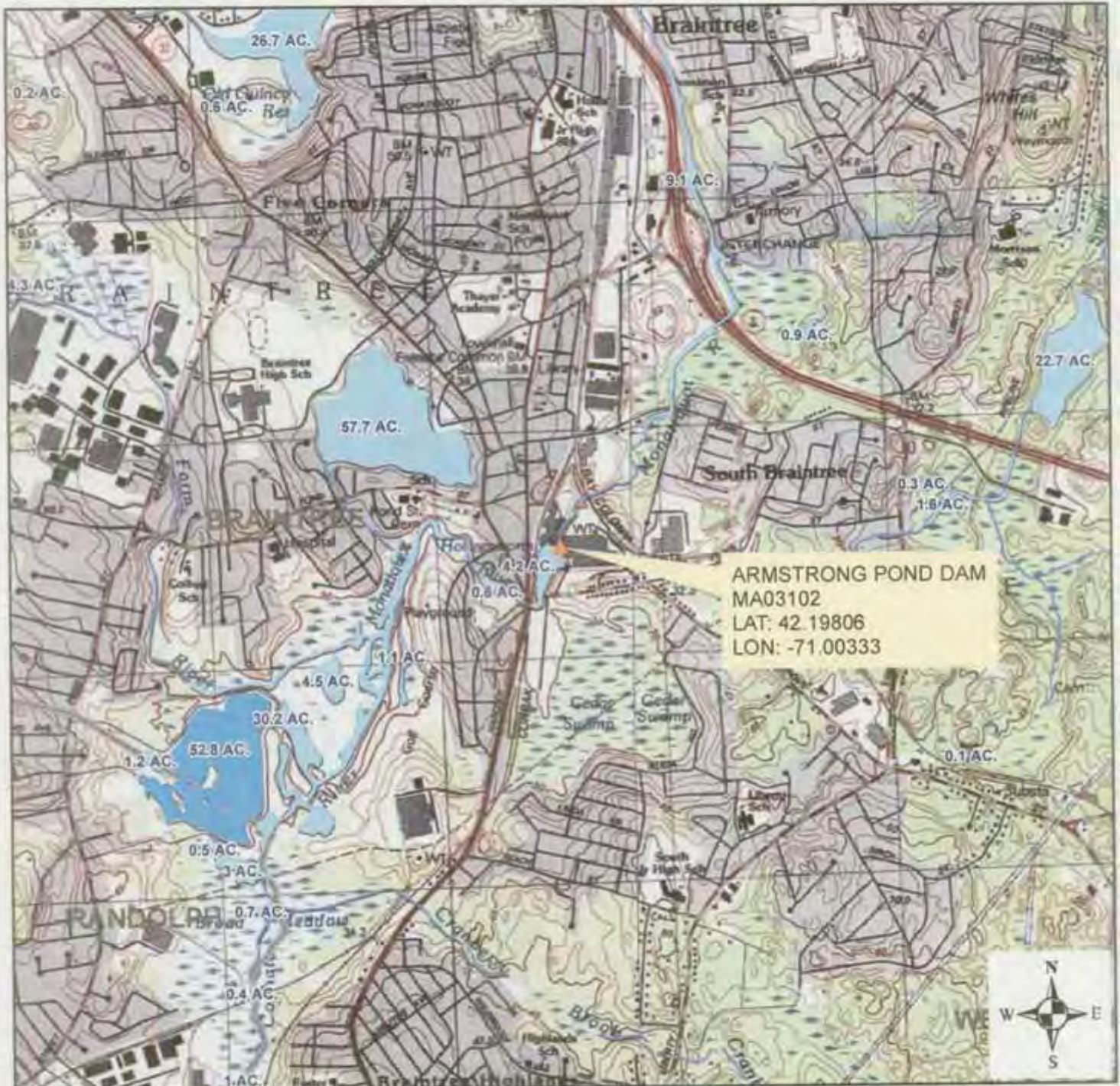
For Office of Dam Safety Use

Name of ODS Staff Reviewing Recommendations: JP Date: 10/27

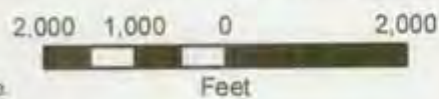
Office Staff Review Concludes: (mark with X)
The Dam ☒ Does ☐ Does Not Meet the Definition of a Jurisdictional Dam.

Data contained on this form was entered into the Office of Dam Safety Database on 10/27

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF CONSERVATION AND RECREATION
OFFICE OF DAM SAFETY
DAM INSPECTION



Hydrography data downloaded from the Mass GIS web page.
Topographic underlay from USGS.
Dam information provided by Dept. of Conservation and Recreation.
Horizontal Datum: NAD83 Massachusetts Mainland (2001 Feet) State Plane.
Map created June 2006



- Town Boundary
- Pond, Lake, Ocean
- Reservoir
- Cranberry Bog
- Perennial Stream
- Dams



DAM MA03102



Photo 1: Left Abutment



Photo 2: Right Abutment



Photo 5: Downstream Face



Photo 6: Spillway



Photo 7: Outlet Structure

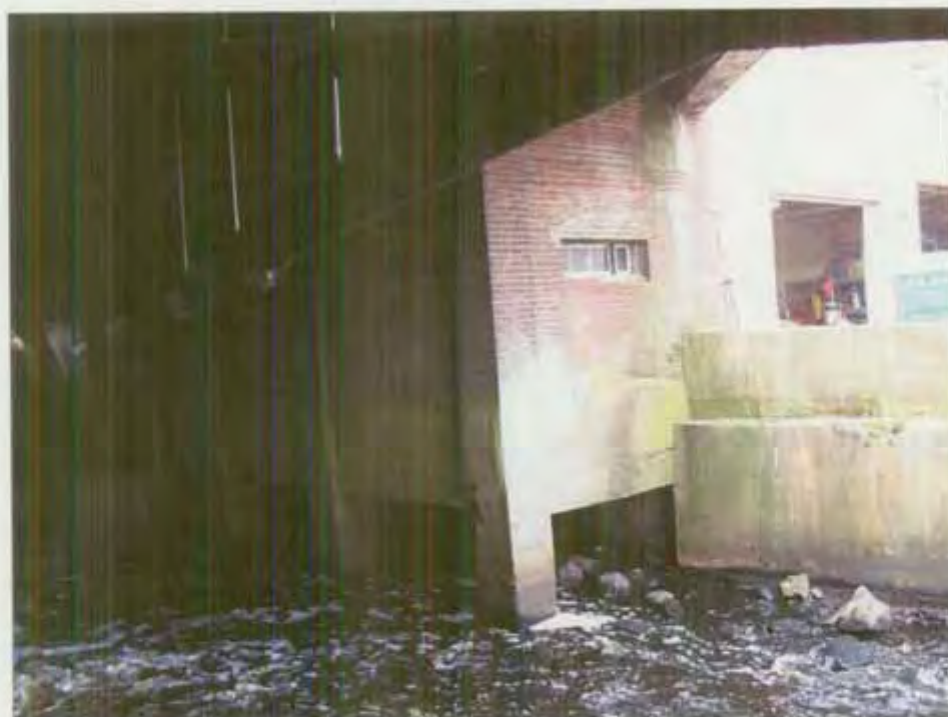


Photo 8: Downstream Channel



Photo 9: First Crossing



Photo 10: Downstream View at First Crossing



FUSS & O'NEILL
Disciplines to Deliver

PREPARED
BY
TMP

DATE
JUNE
23
2006

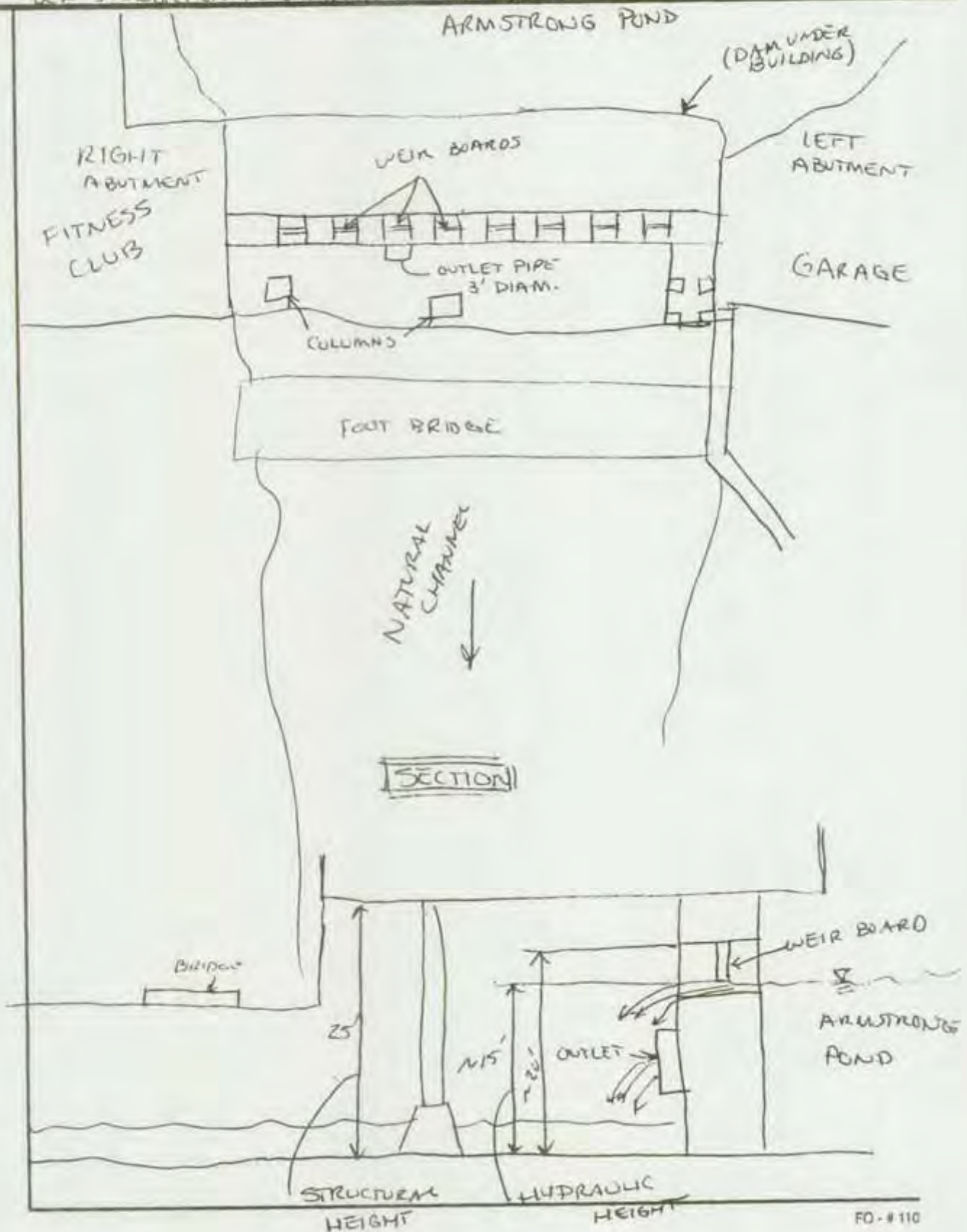
CHECKED
BY
PWN

DATE
6/24/06

PROJECT NO.
2003
102 S11

SHEET NO.
1 of 1

DCR JURISDICTION DETERMINATION: MA 03102



Department of Conservation and Recreation DAM Detail

National ID: MA03102
Dam Location: Braintree
Dam Name: Armstrong Pond Dam
AKA Name:
District#: 6 County#: 11
Town#: 40 DAM#: 3
River:
IMP Name: Armstrong Pond
AKA Name:
Basin: 19 Compliance: N
Grant:
Grant Date:
Fish Ladder:

Size Class:
Dam Type:
Purpose:
Year Comp: 0
Struct Height (ft): 25
Hydro Height (ft): 15
Drain Area (Sq. mi): 0
Vol. Impoundment (acre-ft): 31
Max Impoundment (acre-ft): 51.7
Crest Length (ft): 0
Spill Type:
Spill Length (ft): 0
Spill Capacity (cfs): 0

USGA Quad:
Inspection Reg:
Conditional Letter: UN
Army Phase 1 RPT: N
DCR Phase 1 RPT: N
Latitude: 42.19601103
Longitude: -71.004517
Ferc. Lic: N
253 Permit Date:
Crest Public Road:
Crest Public Bridge:
Registered: N

Owner: Hollingsworth Pond LLC
Street: 400 Franklin St
Town: Braintree, MA 02184
Phone: (781) 848-5000
Owner type: 10
FAX:
EMail:
Caretaker: Armstrong Cork Co.
Street: Hancock St
Care. Town: Braintree, Ma 02184
Phone:
FAX:
Email:
Last date Changed: 10/24/2007

Comment:
 JP enter 10/07: Dam falls under DCR jurisdiction as Class 1 based on F&O 6/16/06 VIF report.
 06/08/07: Rob St. John returned my call. He's referring me to their lawyer, Ron Marshal. He wants a complete record of attempted contacts. I'll ask Jen about it. JWR. 06/06/07: Owner of record is S.X. Messina Enterprises, 400 Franklin Street, Braintree. Called on this date and inquired about EAP development. Gave new contact number to Jen. JWR. Owner info updated 6/14/06

ODSREVIEW: Pending
IC: H Last Reg. Inspection Date
Update Confirmation to file DCR Initial:
Next Reg. Inspection Date:
Date: 10/10/07
Inspection Frequency: 2
ORPSTATUS: C JDSTATUS: F DCRPH1Status: Y
Jurisdictional Status: Y

Department of Conservation and Recreation DAM Detail

National ID: MA03102

Reg. Ins. Date

Consultant

DCR Date: 12/5/2000

Inspection cond

Date Returned to Owner:

Date Report Received:

Inspection Compliance:

Design

Maint. Level

Emerg Plan

Embank. Sepage

Embank. Cond.

Est. Repair Cost

\$0.00

Concrete Cond.

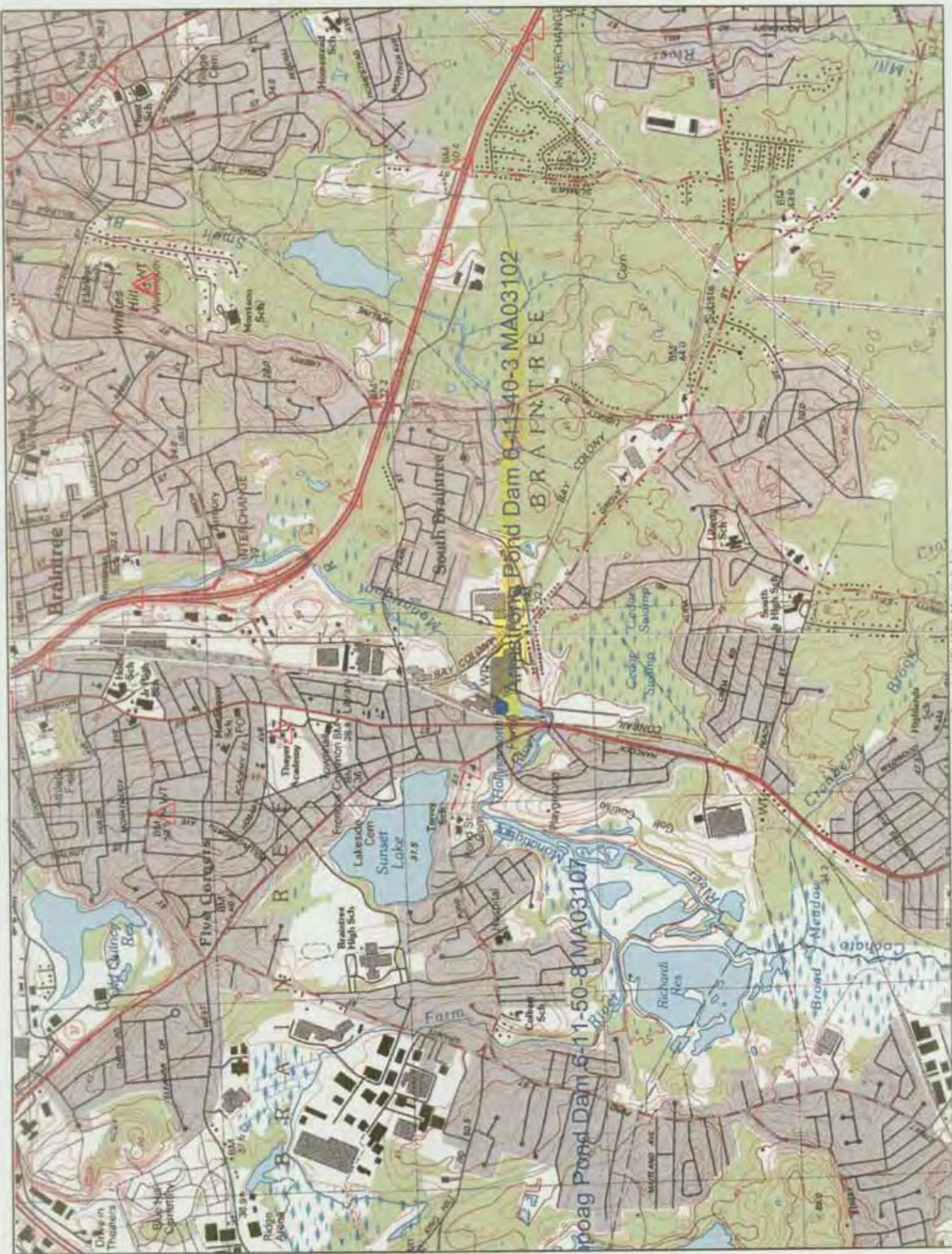
Lowlevel Capacity

Outlet Cond.

% Capacity

DAM Condition

Comments No paper file.



- Sunset Lake Dam



FUSS & O'NEILL

Disciplines to Deliver

REVIEWED 4/9/08

ENTERED

WCA

Sig HAZ

May 29, 2007

Mr. Jerzy Pietrzak
Office of Dam Safety
John Augustus Hall
180 Beaman Street
West Boylston, MA 01583

RE: **Sunset Lake Dam – Dam # MA03103**
Braintree, MA
Jurisdictional Determination

Dear Mr. Pietrzak:

Fuss & O'Neill, Inc. made a field visit to the **Sunset Lake Dam** in order to determine the regulatory jurisdiction of the structure as authorized by DCR under P07-2441-X06. The purpose of this letter is to report our findings and provide our recommendation to the Office of Dam Safety that the structure be considered **jurisdictional**.

As part of this effort, we contacted the registered owner of the dam to schedule our site visit and to confirm the location of their dam. We visited the site to measure the structural and hydraulic heights, take photographs, and prepare a field sketch. We also reviewed the downstream area to assist us with our hazard determination.

Our jurisdictional determination was based upon a comparison of the field data collected to the criteria established in Chapter 253 Section 44-48 and Chapter 302 CMR 10.06(2) through (4) for size and hazard potential classification. Factors such as height, type of structure, volume of impoundment, and hazard classification were taken into consideration as part of our assessment of the structure. Additionally, any barrier or appurtenant works that was found to have a size classification of small, a hazard classification of low, and used for agriculture was determined to be Non-jurisdictional.

We determined the Sunset Pond Dam to be jurisdictional due to significant hazard posed to the presence of residential neighborhoods downstream.

146 Hartford
Road
Manchester, CT
06040-5921

T (860) 646-2469
(800) 286-2469
F (860) 533-5143

www.FandO.com

Connecticut
Massachusetts
New York
Rhode Island
North Carolina
South Carolina

Attached is the completed Jurisdiction Determination Form, along with a field sketch, a MassGIS topographic location map, and site photographs. If you have any questions regarding this determination, please do not hesitate to contact us.

Sincerely,

Chris Barnwell, E.I.T.
Engineer III

Philip W. Moreschi, P.E.
Vice President

Attachments

c: William Salomaa, DCR

Commonwealth of Massachusetts
Department of Conservation and Recreation (DCR)
Office of Dam Safety (ODS)

For Office of Dam Safety Records - Jurisdiction Verification Form

Consultant Firm Name: Fuss & O'Neill, Inc.

Consultant Staff SAH

Date: 5/29/07

Town: Braintree

Name of dam: America's Pond Dam

National Dam ID Number: MA03103 State ID Number: 6-11-40-6

Structural Height of Dam: (measured vertical height of dam
as measured from streambed at downstream
toe to crest of dam)

5.5 feet

Maximum Size of Impoundment: (estimated volume in acre
feet of pool at top of dam elevation)

160 acre-feet

Hydraulic Height of Dam: (measured vertical height of normal
pool impoundment from streambed at downstream toe to
Spillway Crest)

2 feet

Normal Pool Size of Impoundment: (estimated volume in acre
feet of pool at spillway crest elevation)

47 acre-feet

Dam Location Lat. 42.20151 Long. -71.01574 Overall Condition Fair

Public Road On Crest ☐ Yes ☒ No. If Public Road, is there a Bridge Across the Spillway ☐ Yes ☐ No

Consultant Recommendation: (mark with X)

Does the dam meet the definition of a jurisdictional dam in accordance with MGL Chapter 253 Section 44 - 48 and 302
CMR 10.00 Dam Safety Regulations? ☒ yes ☐ no, Is the dam currently Jurisdictional Y/N N

Suggested Hazard Potential Class: ☐ High ☒ Significant ☐ Low, Existing Hazard Potential Class: N

Check here if this statement applies: ☒ The Suggested Hazard Potential Class is based upon a cursory review of the limited
information available during this assignment. The suggested class is intended to be a recommended classification of the structure,
however, additional study may be necessary to establish the record Hazard Potential Class.
ODS will make the final determination.

Additional Comments: (apparent condition, description of hazard, etc, add a sheet if necessary) Residential areas likely to be flooded downstream. ✓

Consultant Signature: [Signature]

Title: Engineer III

May 29, 2007
date

For Office of Dam Safety Use

Name of ODS Staff Reviewing Recommendations: [Signature]

Date: 4/9/08

Office Staff Review Concludes: (mark with X)

The Dam ☒ Does ☐ Does Not Meet the Definition of a Jurisdictional Dam.

Data contained on this form was entered into the Office of Dam Safety Database on 4/9/08

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF CONSERVATION AND RECREATION
OFFICE OF DAM SAFETY
DAM INSPECTION



Hydrography data downloaded from the Mass GIS web page.
Topographic underlay from USGS.
Dam information provided by Dept. of Conservation and Recreation.
Horizontal Datum: NAD83 Massachusetts Mainland (2001 Feet) State Plane.
Map created June 2006.

2,000 1,000 0 2,000
Feet

- Town Boundary
- Pond, Lake, Ocean
- Reservoir
- Cranberry Bog
- Perennial Stream
- Dams



DAM MA03103



Photo 1: Left Abutment



Photo 2: Right Abutment



Photo 3: Upstream Face and Spillway



Photo 4: Impoundment



Photo 5: Area Adjacent to First Downstream Crossing



FUSS & O'NEILL
Disciplines to Deliver

PREPARED
BY
SAH

DATE
5/29/07

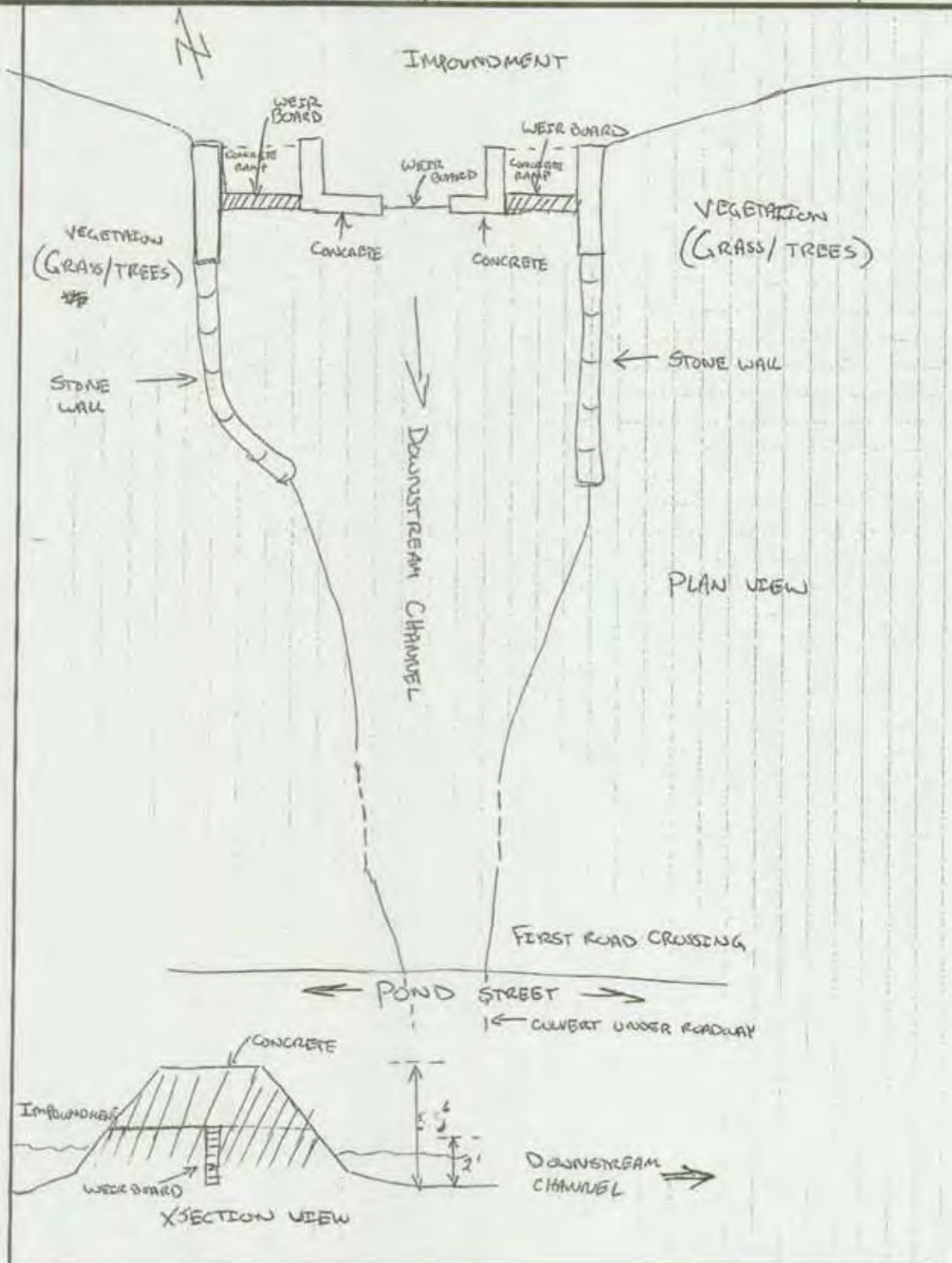
CHECKED
BY
HCB

DATE
6/29/07

PROJECT NO.
2003/02 S15

SHEET NO.
1 of 1

SUNSET LAKE DAM - MA 03103



- Great Pond Dam



Commonwealth of Massachusetts
Executive Office of Environmental Affairs
Department of Environmental Management

NOTICE OF INSPECTION

P.O. Box 173
Old Common Road
Lancaster, MA
01523
(508) 792-7716
FAX 792-7718

To: Town of Braintree Water and
Sewer Commission
c/o Paul Niman, Executive Director
2 J.F.K. Memorial Drive
Braintree, MA 02154-0001

Date: Jan. 24, 1992
Dam No. 6-11-40-5
Dam Name: Great Pond
Dam

**Office of
Dam Safety**

Dear Mr. Niman,

The Department of Environmental Management's Office of Dam Safety has performed a visual inspection on the above-reference dam as prescribed by the established Rules and Regulations adopted under M.G.L. Ch. 253, s.44 - 50.

Our inspection Summary and Recommendations are attached for your information as the record owner of this dam.

You are hereby notified to initiate corrective actions as recommended in the attached report and to eliminate the noted deficiencies within one (1) year of receipt of this Notice of Inspection. Furthermore, in accordance with Rule 302 CMR 10.17, the dam has been found to be hydraulically inadequate or non-operational and your spillway discharge capacity under the Commonwealth's standard test flood is inadequate, and/or your outlet capacity is less than the estimated inflow rate and/or your outlet controls are inoperable. Please refer to the established Rules and Regulations for Dam Safety, 302 CMR 10.00 and to the attached report for further information in this matter.

When corrections are made, you should notify this office.

If you disagree with our findings, you may engage the services of a registered professional civil engineer to perform an independent evaluation. If you choose this course, you must notify this office of your intent within thirty (30) days, identify the consultant and the scope of services the consultant is to perform for you and indicate the date the consultant's report is expected to be completed.

If you have any questions, please contact this office.
Thank you for your cooperation.


Raul F. Silva, Director
Office of Dam Safety


William A. Lockhart, P.C.E.
Office of Dam Safety

January 24, 1992

PREFACE

On January 6, 1992 the Department of Environmental Management's Office of Dam Safety conducted an inspection of the Great Pond Dam.

This inspection was visual in nature and is not intended to serve as a substitution for a detailed engineering study and evaluation.

In reviewing this report, it should be realized that the reported condition of the dam is based on observations of field conditions at the time of inspection along with data available to the inspection team. In cases where the reservoir was lowered or drained prior to inspection, such action, while improving the stability and safety of the dam, removes the normal load on the structure and may obscure certain conditions which might otherwise be detectable if inspected under normal operating environment of the structure.

It is important to note that the condition of a dam depends on numerous and constantly changing internal and external conditions, and is evolutionary in nature. It would be incorrect to assume that the present condition of the dam will continue to represent the condition of the dam at some point in the future. Only through continued care and inspection can there be any chance that unsafe conditions be detected.



Raul F. Silva, Director
Office of Dam Safety
Department of Environmental Management

GREAT POND DAM
No. 6-1-40-5
Braintree

Date of Inspection: 1/06/92
Date of Report: 1/24/92

ASSESSMENT AND RECOMMENDATIONS

Condition:

The visual examination of Great Pond Dam and spillway revealed that the dam is unstable due to the potential of being overtopped. This, along with trees and brush and the condition of the old King Hill Road embankment and the stone culvert under West Road at the dam, cause the overall condition classification to be considered fair.

Adequacy of Information:

The evaluation of the dam and spillway have been based primarily on the visual examination, interview with dam caretaker, past performance and application of engineering judgment. The information available obtained was adequate for the purposes of the inspection assessment.

This dam was inspected by the Department of Environmental Management in 1987. A report of that inspection was provided to the Town of Braintree which contained a comprehensive evaluation of its condition, along with specific recommendations. It is evident that none of the recommendations have been carried out as of the date of this inspection.

It is recommended that the owner/caretaker of this dam review the 1987 DEM report and begin to implement the corrective measures and additional investigations therein. They are listed in the following remedial measures.

Remedial Measures:

It is recommended that the following remedial measures be undertaken by the owner to correct deficiencies noted during the visual examination.

1. The leak between the steel channel that holds the stoplog in place and the concrete training wall at the spillway should be plugged.
2. Replace missing and displaced riprap on the upstream face of the dam.

GREAT POND DAM
No. 6-1-40-5
Braintree

Date of Inspection: 1/06/92
Date of Report: 1/24/92

3. Remove trees, brush and roots from the embankment surfaces, regrade the embankments to a uniform cross section and establish erosion protection of the finished surfaces.
4. Develop emergency warning and flood surveillance plans, including around-the-clock monitoring during heavy precipitation.
5. Develop formal operation and maintenance procedures for the dam.

Adequacy of Information:

Great Pond Lower Dam was not included in the Army Corps of Engineers National Dam Safety Program, therefore a Phase I Inspection Report was not prepared for this site. At the time of the inspection, no other information was available concerning the design, construction or operations of the dam.

Cost Estimate:

Remedial Measure No.	<u>Labor</u>	<u>Material</u>	<u>Total</u>
1.	\$1,000.	\$ 500.	\$1,500.
2.	5,000.	2,500.	\$7,500.
3.	8,000.	8,000.	<u>\$8,000.</u>
		Subtotal:	\$17,000.
		20% Engineering & Contingency:	<u>3,400.</u>
		Total 1 & 3:	\$20,400.
4.	\$15,000.		\$15,000.
5.	10,000.		\$10,000.
		Total 1 - 5	<u>\$45,000.</u>

Need for Additional Investigations:

Additional Investigations should be performed as recommended in the 1987 DEM report.

GREAT POND DAM
No. 6-1-40-5
Braintree

Date of Inspection: 1/06/92
Date of Report: 1/24/92

Recommendations:

It is recommended the owner arrange for the following investigations to be performed by a qualified registered professional engineer:

1. An investigation into upgrading the culvert under West Road should be undertaken.
2. Prepare a plan to incorporate the old King Hill Road causeway as part of the original Great Pond Dam. The plan should include the development of an inspection program and maintenance program at the causeway. The downstream area of the causeway should also be monitored for the detection of seepage as there is some indication of clean, sandy depression areas downstream that may be fed by underseepage from the reservoir.
3. Further investigate the low level outlet structure to determine the operability and type.
4. The downstream face of the concrete ogee spillway is somewhat spalled, although there is no indication of structural deterioration. No remedial work is considered necessary at this time, but this condition should be checked periodically in case it worsens and requires repair.
5. Determine the seismic stability of the embankment.
6. The hydrologic and hydraulic analysis has indicated that the existing spillway system is hydraulically inadequate to safely discharge the SDF without overtopping of the embankment. Detailed hydrologic and hydraulic studies should be undertaken to evaluate the most feasible method of increasing spillway capacity. Alternates include removal of stoplogs, lengthening of the existing spillway crest and construction of an emergency spillway section.

The owner should implement corrective measures as required, based on the results of the above engineering evaluations.

If there any questions regarding the contents of this report, please contact Mr. William A. Lockhart, P.C.E. at the Office of Dam Safety.

EVALUATION FORM

- | | | | | | |
|--|-----|---|-----|-----|-----|
| 1) DESIGN | (1) | 2 | 3 | 4 | 5 |
| 1-unknown design
3-some standard design features
5-state-of-the-art-design | | | | | |
| 2) LEVEL OF MAINTENANCE | 1 | 2 | (3) | 4 | 5 |
| 1-no evidence of maintenance plan
3-some level of maintenance work
5-detailed, written program | | | | | |
| 3) EMERGENCY WARNING PLAN | (1) | 2 | 3 | 4 | 5 |
| 1-no plan/idea for emergency response actions
3-no plan but well thought out
5-detailed, written plan | | | | | |
| ----- | | | | | |
| 4) EMBANKMENT | 1 | 2 | (3) | 4 | 5 |
| 1-evidence of piping and/or severe seepage
3-serious seepage problem
5-no evidence of seepage | | | | | |
| 5) CONCRETE/MASONRY | 1 | 2 | 3 | (4) | 5 |
| 1-major cracks/severe leaks or deficiencies throughout
3-significant deficiencies/erosion or minor cracks
5-no deficiencies apparent | | | | | |
| 6) LOW-LEVEL OUTLET | | | | | |
| A-CAPACITY | (1) | 2 | 3 | 4 | 5 |
| 1-insufficient
3-sufficient capacity
5-greater than necessary | | | | | |
| B-CONDITION | 1 | 2 | 3 | 4 | (5) |
| 1-inoperable and requires replacement
2-inoperable/repairs required
3-operable but needs repair
4-operable/maintenance needed
5-good operational condition | | | | | |

9

7) SPILLWAY DISCHARGE CAPACITY AS
PERCENTAGE OF TEST FLOOD

1

2

3

4

5

- 1- 0-20%
- 2- 21-40%
- 3- 41-60%
- 4- 61-80%
- 5- 81-100%

8) GENERAL CONDITION

1

2

3

4

5

- 1-major operation/maintenance
& structural deficiencies
- 3-significant operation/maintenance
deficiencies (no structural)
- 5-no operation/maintenance or
structural deficiencies

9) ESTIMATED COST FOR REPAIRS:

\$ 45 K (As per 1987 DEM Report)

DAM INSPECTION CHECKLIST

MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

DIVISION OF DAM SAFETY

NAME OF DAM: Great Pond Dam DEM I.D. NO.: 6-11-40-5

ARMY CORP ID 00282

LOCATION: Braintree Township Norfolk County

DEM CLASSIFICATION DATA: Intermediate * size Significant hazard

PHYSICAL DATA: Earthen type of dam 10' height of dam 700 acre feet normal pool storage capacity

ELEVATIONS: 102.05 normal pool 102.45 pool at inspection 97.0 ± fallwater at inspection

PERSONS PRESENT AT INSPECTION

NAME	TITLE/POSITION	OWNERS NAME/ADDRESS
<u>William A. Lockhart</u>	<u>Principal Civil Engineer</u>	<u>Mr. Paul Nimmo, Exec. Director</u>
<u></u>	<u></u>	<u>Braintree Water & Sewer Comm.</u>
<u></u>	<u></u>	<u>2 N.E. Memorial Drive</u>
<u></u>	<u></u>	<u>Braintree, MA 02154-0001</u>

DATE OF INSPECTION: 01/06/92

WEATHER: fair

TEMPERATURE: 20°

This is to certify that the above dam has been inspected and the following are the results of this inspection.

William A. Lockhart

SIGNATURE OF INSPECTING ENGINEER

* This is a change from "small" based on
normal storage capacity of 700 acre feet
and 302 cfs 10.00 Dam Safety Rules &
Regulations promulgated 4/14/89

1

2

NAME OF DAM: Great Pond Dam I.D. NO.: 6-11-40-5 INSPECTION DATE: 01/06/92

EMBANKMENT

1 of 2

AREA INSPECTED	ITEM NO.	CONDITION	OBSERVATIONS	CHECK ()		
				MONITOR	INVESTIGATE	REPAIR
CREST	1	SURFACE CRACKING	None			
	2	SINKHOLE, ANIMAL BURROW	None			
	3	LOW AREA(S)	Crest varies by 8" ±			
	4	HORIZONTAL ALIGNMENT	Good			
	5	RUTS AND/OR PUDDLES	None			
	6	VEGETATION CONDITION	Brush & trees - should be cut & removed			✓
UPSTREAM SLOPE	7					
	8					
	9	SLIDE, SLOUGH, SCARP	None			
	10	SLOPE PROTECTION	Riprap in need of replacement in a few areas			✓
	11	SINKHOLE, ANIMAL BURROW	None			
	12	EMB.-ABUT. CONTACT	OK			
	13	EROSION	Some minor erosion upstream slope			
	14	VEGETATION CONDITION	brush & small trees should be cut			✓
ADDITIONAL COMMENTS: REFER TO ITEM NO. IF APPLICABLE	15					
	16					

NAME OF DAM: Great Pond DamI.D. NO.: 6-11-40-5INSPECTION DATE: 01/02/92

EMBANKMENT

2 of 2

AREA INSPECTED		CHECK () ACTION NEEDED		
ITEM NO.	CONDITION			
17	WET AREA(S) (NO FLOW)			
18	SEEPAGE			
19	SLIDE, SLOUGH, SCARP			
20	EMB.-ABUT. CONTACT			
21	SINKHOLE, ANIMAL BURROW			
22	EROSION			
23	UNUSUAL MOVEMENT			
24	VEGETATION CONTROL			✓
25				
26				
27	PIEZOMETERS/OBSERV. WELLS			
28	STAFF GAUGE AND RECORDER			
29	WEIRS			
30	SURVEY MONUMENTS			
31	DRAINS			
32	FREQUENCY OF READINGS			
33	LOCATION OF RECORDS			
34				
35				

ADDITIONAL COMMENTS: REFER TO ITEM NO. IF APPLICABLE

17. There is a swampy area immediately downstream of the right embankment of the dam and a small pond downstream of the old King Hill Road

4

NAME OF DAM: Great Road Dam I.D. NO.: 6-11-40-5 INSPECTION DATE: 01/06/92

DOWNSTREAM AREA AND MISC.

1 of 1

AREA INSPECTED	ITEM NO.	CONDITION	OBSERVATIONS	CHECK () ACTION NEEDED		
				MONITOR	INVESTI- GATE	REPAIR
DOWNSTREAM AREA	36	ABUTMENT LEAKAGE	None observed			
	37	FOUNDATION SEEPAGE	See #17			
	38	SLIDE, SLOUGH, SCARP	None			
	39	DRAINAGE SYSTEM	None			
	40					
	41					
DOWNSTREAM AREA	42	DOWNSTREAM HAZARD DESCRIPTION	Industrial complex located approx 2000 ft downstream. Failure may cause loss of life or property.			
	43	DATE OF LAST UPDATE OF EMERGENCY PLAN	No plan			
	44	RESERVOIR SLOPES	heavy vegetation & relatively flat			
	45	ACCESS ROADS	Old King Hill Road off of West St.			
	46	SECURITY DEVICES	Gates To Keep vehicles off of the dam			
MISCELLANEOUS	47					
	48					
	49					
	50					
ADDITIONAL COMMENTS: REFER TO ITEM NO. IF APPLICABLE						

NAME OF DAM: Great Bend DamI.D. NO.: 6-11-40-5INSPECTION DATE: 01/20/92

SPILLWAYS

1 of 1

AREA INSPECTED	ITEM NO.	CONDITION	OBSERVATIONS	CHECK () ACTION NEEDED		
				MONITOR	INVESTI- GATE	REPAIR
ERODIBLE CHANNEL	51	SLIDE, SLOUGH, SCARP				
	52	EROSION				
	53	VEGETATION CONDITION				
	54	DEBRIS				
	55					
NON-ERODIBLE CHANNEL	56					
	57	SIDEWALLS	Concrete - good condition			
	58	CHANNEL FLOOR	" " weir good condition			
	59	USUAL MOVEMENT	None			
	60	APPROACH AREA	Underwater			
DROP INLET	61	WEIR OR CONTROL DISCHARGE AREA	Steel flashboards			
	62		Natural channel			
	63					
	64					
	65	INTAKE STRUCTURE				
	66	TRASHWACK				
	67	STILLING BASIN				
	68					
	69					

ADDITIONAL COMMENTS: REFER TO ITC NO. 1, IF APPLICABLE

6

NAME OF DAM: Great Ford DamI.D. NO.: 6-11-40-5INSPECTION DATE: 01/06/92

OUTLET WORKS

1 of 1

AREA INSPECTED	ITEM NO	CONDITION	OBSERVATIONS	CHECK () ACTION NEEDED		
				MONITOR	INVESTI- GATE	REPAIR
OUTLET WORKS	70	INTAKE STRUCTURE *	See below			
	71	TRASIRACK	Unknown			
	72	STILLING BASIN	None			
	73	PRIMARY CLOSURE *	See below			
	74	SECONDARY CLOSURE	None			
	75	CONTROL MECHANISM	Operational			
	76	OUTLET PIPE	Operational			
	77	OUTLET TOWER	None			
	78	EROSION ALONG DAM TOE	None			
	79	SEEPAGE	None			
	80	UNUSUAL MOVEMENT	None			
	81					
	82					
	83					

ADDITIONAL COMMENTS: REFER TO ITEM NO. IF APPLICABLE

* Low Level outlet was open during this inspection
 Vortex visible 12'2" upstream of the outlet structure (concrete valve chamber)

NAME OF DAM:

Great Bend dam

I.D. NO.:

6-11-40-5

INSPECTION DATE:

01/06/92

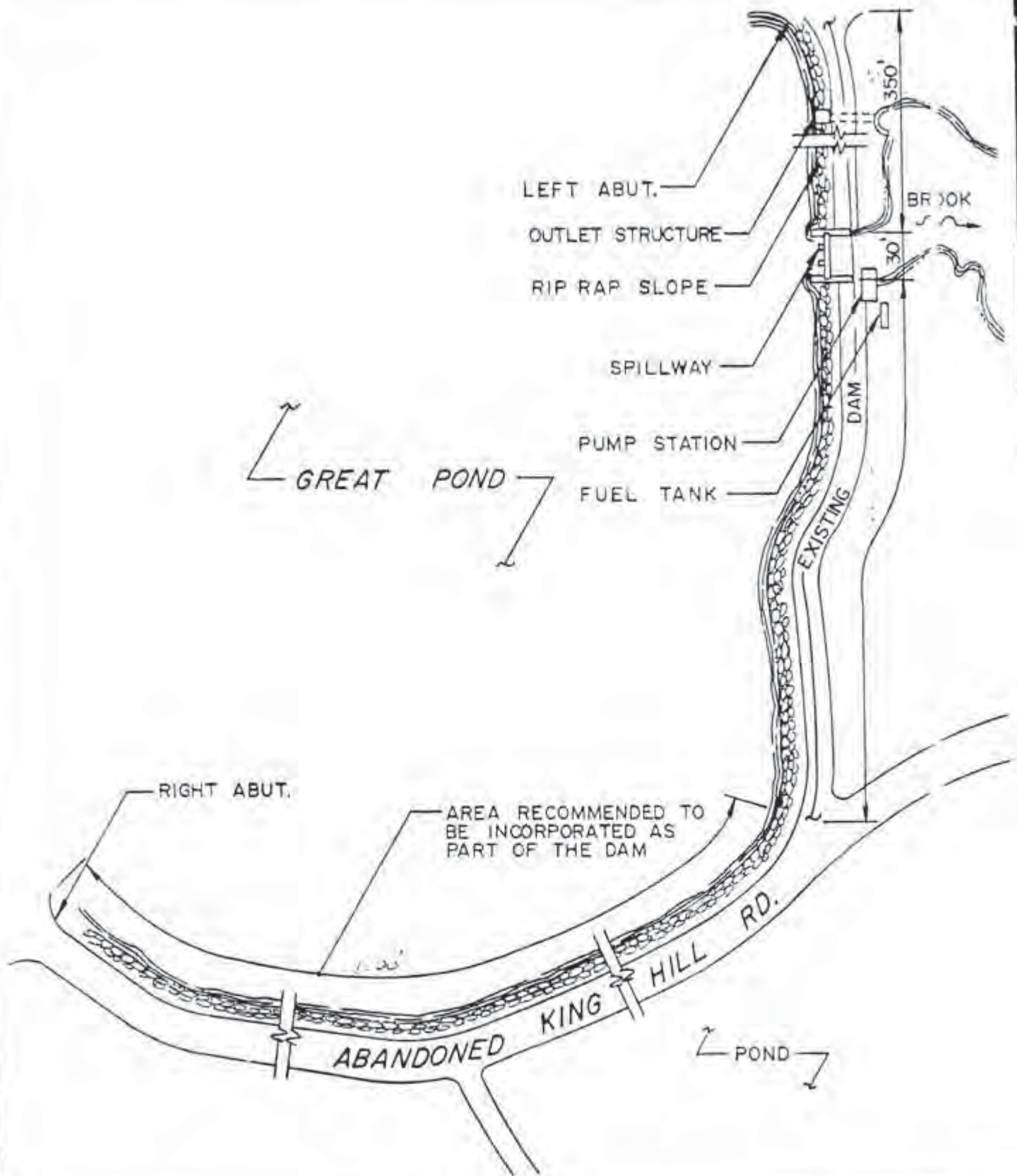
CONCRETE/MASONRY DAMS

1 of 1

AREA INSPECTED		CHECK () ACTION SCHEDULED	
ITEM NO.	CONDITION	OBSERVATIONS	MONITOR INVESTIGATE REPAIR
84	SURFACE CONDITIONS		
85	CONDITION OF JOINTS		
86	UNUSUAL MOVEMENT	<i>Not</i>	
87	ABUTMENT-DAM CONTACTS		
88			
89			
90	SURFACE CONDITIONS	<i>Applicable</i>	
91	CONDITION OF JOINTS		
92	UNUSUAL MOVEMENT	<i>To</i>	
93	ABUTMENT-DAM CONTACTS		
94	DRAINS		
95	LEAKAGE	<i>This</i>	
96			
97			
98	SURFACE CONDITIONS		
99	HORIZONTAL ALIGNMENT	<i>Dam</i>	
100	VERTICAL ALIGNMENT		
101	CONDITION OF JOINTS		
102	UNUSUAL MOVEMENTS		
103			
104			

ADDITIONAL COMMENTS: REFER TO ITEM NO. IF APPLICABLE

FIELD SKETCH



LEE
PARE
ASSOCIATES, INC.

Engineers • Planners • Landscape Architects

Pawtucket, RI

Norwich, CT

GENERAL PLAN GREAT POND DAM #6-11-40-5



LEE
PARE
ASSOCIATES, INC.

Engineers - Planners - Landscape Architects

Pawtucket, RI

Norwich, CT

LOCATION PLAN

GREAT POND DAM

#6-11-40-5

01/06/92

D. NEED FOR ADDITIONAL INVESTIGATIONS

Additional investigations should be performed as outlined in Section 3.

E. RECOMMENDATIONS

It is recommended that the Owner arrange for the following investigations to be performed by a qualified registered professional engineer:

1. An investigation into upgrading the culvert under West Road should be undertaken.
2. Prepare a plan to incorporate the old King Hill Road causeway as part of the original Great Pond Dam. The plan should include the development of an inspection program and maintenance program at the causeway. The downstream area of the causeway should also be monitored for the detection of seepage as there is some indication of clean, sandy depression areas downstream that may be fed by underseepage from the reservoir.
3. Further investigate the low level outlet structure to determine the operability and type.
4. The downstream face of the concrete ogee spillway is somewhat spalled, although there is no indication of structural deterioration. No remedial work is considered necessary at this time, but this condition should be checked periodically in case it worsens and requires repair.
5. Determine the seismic stability of the embankment.
6. The hydrologic and hydraulic analysis has indicated that the existing spillway system is hydraulically inadequate to safely discharge the SDF without overtopping of the embankment. Detailed hydrologic and hydraulic studies should be undertaken to evaluate the most feasible method of increasing spillway capacity. Alternates include removal of stoplogs, lengthening of the existing spillway crest, and construction of an emergency spillway section.

The owner should implement corrective measures as required, based on the results of the above engineering evaluations.

If there are any questions regarding the contents of this report, please contact Mr. William A. Luckhart, P.C.E. at this office.



Commonwealth of Massachusetts
Executive Office of Environmental Affairs
Department of Environmental Management

DAM INSPECTION REPORT CHECKLIST

PO Box 173
Old Common Road
Lancaster, MA
01523
(508) 792-7716
FAX 792-7718

Office of
Dam Safety

DAM NAME: *Great Pond Dam*

I.D. NO.: *6-11-40-5*

DATE OF INSPECTION: *01/06/92*

COVER LETTER: *3B*

PREFACE: *Standard*

INSPECTION CHECKLIST: ✓

SITE PLAN: ✓ FIELD SKETCH: ✓

LOCUS: ✓

COMPUTER DATA SHEET: ✓

PHOTOS: ✓

PHOTO'S DESCRIPTIONS: ✓

SUMMARY OF DEFICIENCIES: ✓

a) Maintenance Repairs: ✓

b) Major Deficiencies: ✓

c) Recommendations/Comments: ✓

H & H ANALYSIS: (Optional) *Unnecessary*

History of Inspections: ✓

Telephone Log: ✓

Request for Typing Form: ✓

Complete name(s) and address(s) for mailing: ✓

Great Pond Dam
6-11-40-5

01/06/92

Assessment & Recommendations

A. CONDITION

The visual examination of Great Pond Dam and spillway revealed that the dam is unstable due to the potential of being overtopped. This, along with trees, and brush and the condition of the old King Hill Road embankment and the stone culvert under West Road, at the dam, causes the overall condition classification of the dam to be considered fair.

B. ADEQUACY OF INFORMATION

The evaluation of the dam and spillway have been based primarily on the visual examination, interview with dam caretaker, past performance, and application of engineering judgement. The information available or obtained was adequate for the purposes of the inspection assessment.

This dam was inspected by DEM in 1987. A report of that inspection was provided to the Town of Braintree which contained a comprehensive evaluation of its condition, along with specific recommendations. It is evident that none of ~~the~~ them have been carried out as of the date of this inspection.

It is recommended that the owner/caretaker of this dam review the 1987 DEM report and begin to implement the ~~proposed~~ corrective measures and additional investigations outlined ~~in~~ therein. They are as follows:

~~The following:~~

~~(S. 1.1)~~

Great Pond Dam
6-11-40-5

01/06/92

REMEDIAL MEASURES

- A. It is recommended that the following remedial measures be undertaken by the owner to correct deficiencies noted during the visual examination.
1. The leak between the steel channel that holds the stoplog in place and the concrete training wall at the spillway should be plugged.
 2. Replace missing and displaced riprap on the upstream face of the dam.
 3. Remove trees, brush, and roots from the embankment surfaces, regrade the embankments to a uniform cross section and establish erosion protection of the finished surfaces.
 4. Develop emergency warning and flood surveillance plans, including around-the-clock monitoring during heavy precipitation.
 5. Develop formal operation and maintenance procedures for the dam.

B. ADEQUACY OF INFORMATION

Great Pond Lower Dam was not included in the National Dam Safety Program, therefore, a Phase I Inspection Report was not prepared for this site. At the time of the inspection, no other information was available concerning the design, construction, or operations of the dam.

B. COST ESTIMATE

<u>Remedial Measure No.</u>	<u>Labor</u>	<u>Material</u>	<u>Total</u>
1.	\$1,000	\$ 500	\$ 1,500
2.	5,000	2,500	7,500
3.	8,000		<u>8,000</u>
		Subtotal	\$17,000
		20% Engineering & Contingency	<u>3,400</u>
		Total (1 & 3)	\$20,400
		SAY	\$20,000
4.	\$15,000		\$15,000
5.	10,000		<u>10,000</u>
		TOTAL (1 - 5)	\$45,000



Commonwealth of Massachusetts
Executive Office of Environmental Affairs
Department of Environmental Management

REQUEST FOR TYPING

P.O. Box 173
Old Common Road
Lancaster, MA
01523
(508) 792-7716
FAX 792-7718

TIME AND DATE :

1/23/92

EMPLOYEE:

Bill

Office of
Dam Safety

NAME OF INSPECTION REPORT:

Great Pond Dam - Braintree

OTHER (request for information, correspondence, etc.):

(1) Copy of Rules & Regs

COMPLETE NAME(S) AND ADDRESS(S) (including zip code) FOR MAILING:

Mr. Paul Niman
Executive Director
Braintree Water & Sewer Commission
2 J.F.K. Memorial Drive
Braintree, MA 02154-0001

DATE AND TIME COMPLETED:

1.24.92

10am

PO

All typing requests should be left in the "Typing Request" bin in the Conference Room, next to the computer.

All completed typing can be picked up in the "Completed Typing" bin in the Conference Room, next to the computer.

TELEPHONE LOG

DAM NAME: Great Pond Dam

TOWN: *Brain tree*

NATIONAL I.D.: 00828

STATE I.D.: II 6-11-40-5

DATE	CONTACT/TITLE	PHONE	SUBJECT
1/08/92	Mr. Paul Nimian Exec. Dir. Braintree Water and Sewer Commission	(617) 843-8097	① Operability of low level outlet ② Status of E.A.P. and O&M ③ Ownership determination

HISTORY OF INSPECTIONS

DAM NAME: *Great Pond Dam*

NO.: 6-11-40-5

LOCATION: Braintree

DEM/D.S.P. by Lee Parc Consultants 6/8/87

" " W.A. Lockhart 1/6/92

Department of Environmental Management
Division of Planning and Development
Office of Dam Safety
Database Entry Form

Date: 01/06/92

I. DESCRIPTION

- A) State ID#: 6-11-40-5
B) Nat. ID#: 00828
C) Name of Dam: Great Pond Dam
D) Name of Impoundment: Great Pond Upper Reservoir
E) River/Stream Name: Blue Hill River
F) Basin: 09
G) Owner
1) Name: Town of Braintree
2) Address: P.O. Box C
Braintree, MA 02184
3) Telephone #: (617) 848-1870
H) Owner Type: 20
I) Caretaker Town Water Dept. Paul Niman Exec. Dir.
1) Name:
2) Address: 2 JFK Memorial Drive
Braintree 02184-0001
3) Telephone #: (617) 843-8097 Paul Seygelin
(617) 843-9205

II. SITE INFORMATION

- A) Hazard Code: 2
B) Size Classification: 3 (Intermediate)
C) Type of Dam: RE
D) Purpose of Dam: S
E) Year Completed: 1945
F) Structural Height: 10
G) Hydraulic Height: 9
H) Drainage Area: 5.52 Square Miles
I) Normal Impoundment: 700 AL. Ft.
J) Maximum Impoundment: 915 AL. Ft.
K) Crest Length: 800 FT.

- L) Spillway Type: *Controlled*
 M) Spillway Width: *30*
 N) Spillway Capacity: *100 cfs (flash boards in place)*
590 cfs (w/o flash boards)

III. LOCATION

- A) Latitude: *42° 12' 30"*
 Longitude: *71° 02' 30"*
 B) Town: *Braintree*
 C) USGS Quadrangle: *Blue Hills MA*
 D) Inspection Region: *D*

IV. INSPECTION INFORMATION

- A) Inspection Condition: *Fair*
 B) Last Inspected: *1/10/92* ~~1/10/92~~
 C) Letter: *3B*
 D) DEM Inspector: *W.A.L.*
 E) Next Inspection: *011 197*
 F) Consultant: *Lee Pare & Associates*
 G) Consultant Date: *618187*
 H) Army Corps Phase I: *No*
 I) DEM Phase I: *Yes*
 J) FERC License: *No*

K) REGISTERED: *No*

L) COMPLIANCE: *N/A*

EVALUATION INFORMATION

- | | |
|-------------------------------------|--------------------------------------|
| E1) Type of Design: <i>3</i> | E6) Low Level Outlet Cap.: <i>3</i> |
| E2) Level of Maintenance: <i>3</i> | E7) Low Level Outlet Cond.: <i>4</i> |
| E3) Emergency Action Plan: <i>1</i> | E8) SDF: <i>590/900 = 65%</i> |
| E4) Cond. of Embankment: <i>3</i> | E9) General Cond.: <i>4</i> |
| E5) Cond. of Concrete: <i>5</i> | E10) Est. Repair Cost: <i>45K</i> |

Great Pond Dam
6-11-40-5

Braintree
Jan. ~~10~~, 1992
06

Inspection Photo Descriptions

- # 1 View of upstream left from spillway
- # 2 Spillway bridge from right side
- # 3 ~~Small~~ ^{Pump} house from downstream
- # 4 View of the right crest
- # 5 Spillway looking towards right
- # 6 Crest and downstream slope on left side
- # 7 Hydraulic vortex appearing approx. 15 feet upstream of the valve chamber
- # 8 View of the downstream channel from the crest - Note; West Street culvert is at top of photo

GREAT POND DAM
No. 6-1-40-5
Braintree

Date of Inspection: 1/06/92
Date of Report: 1/24/92

PHOTO DESCRIPTIONS

1. View of upstream left from spillway.
2. Spillway bridge from right side.
3. Pump house from downstream.
4. View of the right crest.
5. Spillway looking towards right.
6. Crest and downstream slope on left side.
7. Hydraulic vortex appearing approximately 15 feet upstream of the valve chamber.
8. View of the downstream channel from the crest. Note: West Street culvert is at top of photo.



Department of Environmental Management
Division of Planning and Development
Dam Safety Inventory
Ownership: CITY

Date:

Region: 1
DEM District: 1

Army Corps ID #: 00828 Name of Dam: GREAT POND DAM

Owner: TOWN OF BRAINTREE WD Address: P.O. BOX C, BRAINTREE MA 02184
Phone: 843-8097

Name of Impoundment: GREAT POND Basin: 09

Type of Dam: PGOT River or Stream: BLUE HILL RIVER

Year Completed: 1945 Purpose: S Last Inspected: 07MAY85

Condition: Last Inspected by:

Hazard Code: 2 Struc. Height: 10 Hydr. Height: 6 Volume: 250

Max. Impound: 1000 Nor. Impound: 700

State ID#

District 6
County- 11
Town- 40
Dam- 5

Spillway
Crest Length 30
Type- C
Width- 20
Spillway Cap.- 0

USGS Map: BLUE HILLS MA

Town: BRAINTREE

Comments











COMPREHENSIVE
ENVIRONMENTAL
INCORPORATED

November 9, 1999

- Planning
- Permitting
- Engineering
- Design

R. David Clark
Department of Environmental Management
Office of Dam Safety
100 Cambridge St.
Boston, MA 02202

RE: GREAT POND DAM SYSTEM

Dear Mr. Clark:

Providing
community and
corporate
consulting for
environmental
issues and
infrastructure

This letter is in response to the Notice of Inspection the Department sent to the Braintree Water Department dated November 10, 1998 concerning the Great Pond Dam System. I am writing to you on behalf of the Tri-Town Board of Water Commissioners who handle issues involving the Reservoirs.

The purpose of this letter is to notify your office that the recommendations listed in the Inspection/Evaluation Report have been initiated. As of October 4, 1999, the Board has contracted with GZA GeoEnvironmental of Newton Upper Falls, MA to perform the engineering services required by the Notice including inspections, geotechnical and hydraulic analyses and production of reports and plans.

The Board has also initiated the maintenance work recommended in the Notice to be performed by internal forces. The repair of riprap and removal of brush at various locations is nearly complete.

If you have any questions or require any additional information, please do not hesitate to contact me at 1-800-725-2550 ext. 305.

Sincerely,

COMPREHENSIVE ENVIRONMENTAL INC.

Matthew Lundsted, P.E.
Project Manager

cc: Richard Wentzel, Braintree
Tom Cummings, Holbrook
Dave Zecchini, Randolph

- Water
- Wastewater
- Hazardous Waste
- Air Quality



June 26, 2006

Via Certified Mail, Return Receipt Requested

BRAINTREE WATER DEPT.
90 POND STREET
BRAINTREE, MA 02184

Subject: Dam Safety ORDERS
ORDER #1: Conduct Dam Safety Phase I Inspection
ORDER #2: Develop Emergency Action Plan

Dam Name GREAT POND DAM
Location of Dam Braintree
National Dam ID No. MA00828

Dear Dam Owner:

I am writing to issue the following orders:

ORDER #1: Conduct Dam Safety Phase I Inspection

As provided for in General Law chapter 253 § 46 and 302 CMR 10.07, all dams classified as "High Hazard Potential" are required to undergo an inspection every two years by a professional engineer at the owner's expense. As the owner of a dam classified as "High Hazard Potential" you are subject to this requirement.

You are hereby **ORDERED** to have the dam referred to above inspected by a Commonwealth of Massachusetts Registered Professional Engineer and to submit to the Office of Dam Safety at the Department of Conservation and Recreation a completed inspection report no later than September 30, 2006. For your use and that of your professional engineer, inspection guidelines and the inspection form required to be completed and filed with the Office of Dam Safety can be found and downloaded from our website, <http://www.mass.gov/dcr/pe/damSafety/index.htm>.

If you have an up-to-date Phase I inspection report on file, please forward a copy of the report to the Office of Dam Safety within 21 days of receipt of this order. The inspection report will be reviewed. It will be accepted if the report meets Office of Dam Safety Phase I Inspection Report content requirements.

COMMONWEALTH OF MASSACHUSETTS EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS

Department of Conservation and Recreation
251 Causeway Street, Suite 800
Boston MA 02114-2113
TEL: 617-725-1250 FAX: 617-725-1351
www.mass.gov/dcr



Wm. Romney
Governor

Deputy
Governor

Stephen R. Polichinski, Secretary
Executive Office of Environmental Affairs

Stephen H. Burdington, Commissioner
Department of Conservation & Recreation

ORDER #2: Develop Emergency Action Plan

All owners of structures classified as "high hazard potential" dams are also required to prepare and file Emergency Action Plans with the Office of Dam Safety and the Massachusetts Emergency Management Agency (MEMA). You are hereby **ORDERED** to prepare and file, no later than December 31, 2006, an original or updated Emergency Action Plan with the Office of Dam Safety and MEMA.

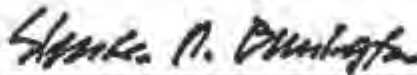
302 CMR 10.11 establishes Emergency Action Plan requirements. The Office of Dam Safety has available a library of information for dam owners pertaining to Emergency Action Plans. Staff are available to provide technical assistance and overview guidance on preparation, maintenance and updating emergency action plans. Information on Emergency Action Plan preparation can be found at our website: <http://www.mass.gov/dcr/pe/damSafety/index.htm>.

Failure to comply with these Orders will subject you to fines of up to \$500 per violation, with each day of violation being subject to a \$500 fine.

Should you have any questions regarding this Order, please feel free to contact the Office of Dam Safety as follows:

- Write to the Department of Conservation and Recreation, Office of Dam Safety, 180 Beaman Street, West Boylston, MA 01583
- Phone (voice) 508-792-7716, ext 600
- Email dam.safety@state.ma.us

Department of Conservation and Recreation
Office of Dam Safety

By: 
Stephen H. Burrington, Commissioner

COMMONWEALTH OF MASSACHUSETTS EXECUTIVE OFFICE OF ENVIRONMENTAL
AFFAIRS

Department of Conservation and Recreation
Office of Dam Safety
John Augustine Hall
180 Beaman Street
West Boylston, MA 01583
508-792-7716 508-792-7718 FAX
www.mass.gov/dcr



Mitt Romney
Governor

Kerry Healey
Lt. Governor

Stephen P. Pilisardi, Secretary
Executive Office of Environmental Affairs

Stephen H. Burrington, Commissioner
Department of Conservation & Recreation



January 11, 2007

Certified Mail No. 7000 0600 0026 2540 5263
Return Receipt Requested

Braintree Water Department
90 Pond Street
Braintree, MA 02184

Subject: Notice of Non-Compliance pertaining to June 26, 2006 Dam Safety Order #1 to Conduct Dam Safety Phase I Inspection

Dam Name: Great Pond Dam
Location of Dam: Braintree
National ID No.: MA00828

Dear Braintree Water Department:

This letter serves as written notification that you have failed to comply with the Dam Safety Order #1 issued on June 26, 2006. A copy of the order is attached.

In accordance with MGL Chapter 253, Sections 44-48 and 302 CMR 10.07 you were ordered to hire a Commonwealth of Massachusetts Registered Professional Engineer and to submit to the Office of Dam Safety at the Department of Conservation and Recreation a completed inspection report no later than September 30, 2006.

As of today's date you have not complied with the requirements of Order #1 which was delivered to you via certified mail on June 26, 2006.

Pursuant to 302 CMR 10.15(4)(e) failure to provide ODS inspection reports that are in compliance as to content and frequency of inspections contained in the Order will result in fines up to \$500.00 per violation. Please be aware that each violation is a separate and distinct offense, and in a case of a continuing violation, each day's continuance therefore shall be deemed to be a separate and distinct offense.

You are hereby notified that you have thirty (30) days to comply with Dam Safety Order #1 issued on June 26, 2006. As of February 15, 2007 DCR will begin to levy fines against you in the amount of up to \$500 per day per separate violation for each day of continuing violation.

COMMONWEALTH OF MASSACHUSETTS - EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS

Department of Conservation and Recreation
251 Causeway Street, Suite 600
Boston MA 02114-2119
617-626-1250 617-626-1351 Fax
www.mass.gov/dcr



Deval L. Patrick
Governor

Timothy P. Murray
Lt. Governor

John A. Rowland, Secretary
Executive Office of Environmental Affairs

Frederic E. Ojeda, Acting Commissioner
Department of Conservation & Recreation

Please contact Ariana Johnson, Assistant General Counsel, at 617-626-1304 if you have any questions.

Sincerely,

A handwritten signature in dark ink, appearing to read "W. C. Salomaa".

William C. Salomaa, Program Manager
Office of Dam Safety

Enclosure

cc:

Nick Vontzalides, DCR Deputy General Counsel
Ariana Johnson, DCR Assistant General Counsel
Karst Hoozeboom, DCR Deputy Commissioner
Noel Baratta, DCR Chief Engineer
Michael Misslin, DCR Deputy Chief Engineer