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OAR



Organization for the Assabet River
9 Damonmill Square, Suite 1E, Concord, Massachusetts 01742

✓

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July 7, 2009

Doug Halley
Director, Acton Health Department
472 Main Street
Acton, MA 01720

Dear Doug,

Enclosed please find an invoice for Acton's share of the Organization for the Assabet River's water quality program for the 2010 fiscal year. The town's share helps pay analysis costs and laboratory fees for the monitoring program. This long-running program provides an overall picture of the health of the Assabet and Concord Rivers to help guide decisions about the management of the rivers.

Because we rely on the services of trained volunteers and receive our laboratory analysis at a 50% discount, OAR is pleased to provide our EPA-certified data to the Assabet communities for a small fraction of what a consulting firm or government agency would charge. All of the data collected is available in OAR's Annual Water Quality Monitoring Reports and on-line at www.assabriver.org/projects/wq-monitoring.

OAR greatly appreciates Acton's continued support for our river protection work.

Sincerely,

Amanda Davis
Executive Director

Enclosure: Invoice

RECEIVED

JUL 16 2009

ACTON BOARD OF HEALTH

(978) 369-3956

fax: (978) 318-0094

oar@assabriver.org

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To:

Doug Halley
Director, Acton Health Department
472 Main Street
Acton, MA 01720

Volunteer Water Quality Monitoring Program Invoice – FY 2010 (July 1, 2009 - June 30, 2010)

The Town's share helps pay analysis costs and laboratory fees for the Organization for the Assabet River's volunteer water quality monitoring program. The program provides an overall picture of the health of the Assabet and Concord Rivers to guide decisions about the management of the rivers. All the information collected is available in OAR's Annual Water Quality Monitoring Reports and on-line at <http://www.assabetriver.org/projects/wq-monitoring>.

Note: Laboratory analyses are provided at a 50% discount from Nashoba Analytical LLC.

Acton's FY2010 donation to this program: \$2,000

Please remit \$2,000 to the Organization for the Assabet River – thank you

We appreciate your continued support for our volunteer water quality monitoring program.

Date: July 7, 2009

Payable upon receipt

Assabet River StreamWatch Water Quality Analysis Report

Mainstem Site Number	Date	Sample Time	TSS (mg/L)	TP (mg/L)	ortho - P (mg/L)	NO3 (mg/L)	NH3 (mg/L)	TKN (mg/L)	TN (mg/L)
ABT-010	6/14/2008	7:45 AM	4.0	0.069	0.030	1.18	0.08	0.15	1.33
ABT-026	6/14/2008	7:20 AM	4	0.066	0.032	1.32	0.09	0.30	1.62
ABT-033	6/14/2008	6:54 AM	5	0.073	0.035	1.44	0.08	0.30	1.74
ABT-062	6/14/2008	6:28 AM	7	0.082	0.028	1.18	0.10	0.16	1.34
ABT-077	6/14/2008	9:00 AM	7	0.068	0.020	0.96	0.06	0.14	1.10
ABT-077-ABT-010	6/14/2008	8:00 AM	5	0.069	0.030	1.18	0.08	0.16	1.34
ABT-144	6/14/2008	8:16 AM	7	0.144	0.081	3.31	0.10	0.15	3.46
ABT-162	6/14/2008	7:57 AM	5	0.105	0.053	1.91	0.09	0.18	2.09
ABT-237	6/14/2008	6:55 AM	5	0.181	0.118	3.61	0.09	0.17	3.78
ABT-242	6/14/2008	8:10 AM	4	0.185	0.138	3.34	0.08	0.18	3.52
ABT-280	6/14/2008	7:48 AM	5	0.671	0.601	5.71	0.11	0.22	5.93
ABT-301	6/14/2008	7:22 AM	3	0.542	0.466	4.81	0.09	0.20	5.01
ABT-301-ABT-144	6/14/2008	8:00 AM	5	0.181	0.118	3.34	0.09	0.18	3.52
ABT-311	6/14/2008	7:35 AM	3	0.036	0.012	0.12	0.06	0.18	0.30
CND-009	6/14/2008	7:51 AM	12	0.057	0.007	0.56	0.06	0.19	0.75
CND-045	6/14/2008	7:30 AM	11	0.053	<0.006	0.42	<0.03	0.09	0.51
CND-110	6/14/2008	6:58 AM	10	0.064	<0.006	0.56	0.04	0.09	0.65
CND-161	6/14/2008	8:05 AM	3	0.052	0.009	0.58	0.04	0.12	0.70
CND-161-CND-005	6/14/2008	8:00 AM	10.5	0.055	0.005	0.56	0.04	0.105	0.675
SUD-005	6/14/2008	6:25 AM	6	0.041	0.021	0.04	0.04	0.20	0.24

Summary Statistics for Mainstem Sites

Maximum	12	0.671	0.601	5.71	0.11	0.3	5.93
Minimum	3	0.036	<0.006	0.04	<0.03	0.09	0.24

Tributary Site Number	Date	Sample Time	TSS (mg/L)	TP (mg/L)	ortho - P (mg/L)	NO3 (mg/L)	NH3 (mg/L)	TKN (mg/L)	TN (mg/L)
CLD-030	6/14/2008	6:45 AM	8	0.023	<0.006	0.41	0.09	0.27	0.68
DAN-013	6/14/2008	7:40 AM	5	0.042	0.007	0.20	<0.03	0.08	0.28
ELZ-004	6/14/2008	8:34 AM	3	0.045	<0.006	0.22	0.10	0.25	0.47
HOP-011	6/14/2008	7:10 AM	7	0.087	0.047	0.28	0.28	0.51	0.79
NSH-002	6/14/2008	9:00 AM	3	0.053	<0.006	0.23	0.09	0.14	0.37
NSH-047	6/14/2008	8:35 AM	8	0.125	0.073	0.39	0.12	0.26	0.65
NTH-009	6/14/2008	7:08 AM	4	0.037	<0.006	0.19	0.08	0.12	0.31
RVM-005	6/14/2008	8:10 AM	7	0.055	0.009	0.41	0.20	0.41	0.82
RVM-038	6/14/2008	8:34 AM	6	0.050	0.022	0.26	0.10	0.24	0.50

Summary Statistics for Tributary Sites

Maximum	8	0.125	0.073	0.41	0.28	0.51	0.82
Minimum	3	0.023	<0.006	0.19	<0.03	0.08	0.28

Assabet River StreamWatch Water Quality Measurements Report

Mainstem	Date	Sample Time	Water Temp (deg C)	DO Sat (%)	DO (mg/l)	Cond (μ S/cm)	pH (s.u.)
ABT-010	6/14/2008	7:45 AM	22.79	72.2	6.20	448	7.27
ABT-026	6/14/2008	7:20 AM	22.45	74.6	6.46	471	7.27
ABT-033	6/14/2008	6:04 AM	22.64	73.2	6.31	479	7.21
ABT-062	6/14/2008	6:28 AM	23.19	83.3	7.11	480	7.32
ABT-077	6/14/2008	9:00 AM	24.12	90.2	7.56	505	7.33
ABT-077-ABT-010	6/14/2008	8:00 AM	22.79	74.6	6.46	479	7.27
ABT-144	6/14/2008	8:16 AM	24.23	92.9	7.77	728	7.38
ABT-162	6/14/2008	7:57 AM	22.26	78.0	6.74	664	7.13
ABT-237	6/14/2008	6:55 AM	19.09	62.4	5.76	766	6.96
ABT-242	6/14/2008	8:11 AM	19.77	74.3	6.77	712	6.89
ABT-280	6/14/2008	7:52 AM	19.39	64.8	5.94	780	6.76
ABT-301	6/14/2008	7:24 AM	20.40	73.0	6.57	676	6.74
ABT-301-ABT-144	6/14/2008	8:00 AM	20.4	74.3	6.74	712	6.96
ABT-311	6/14/2008	7:37 AM	22.94	85.2	7.32	200	7.16
CND-009	6/14/2008	7:58 AM	24.65	103.9	8.63	482	7.40
CND-045	6/14/2008	7:26 AM	25.35	95.2	7.80	441	7.34
CND-110	6/14/2008	6:58 AM	24.58	92.4	7.69	417	7.17
CND-161	6/14/2008	8:06 AM	24.22	78.0	6.54	433	7.20
CND-161-CND-00	6/14/2008	8:00 AM	24.62	93.8	7.75	437	7.27
SUD-005	6/14/2008	6:25 AM	24.85	85.7	7.09	399	7.17

Summary Statistics for Mainstem Sites

Maximum	25.35	103.9	8.63	780	7.4
Minimum	19.09	62.4	5.76	200	6.74

Assabet River StreamWatch Water Quality Measurements Report

Tributary	Date	Sample Time	Water Temp (deg C)	DO Sat (%)	DO (mg/l)	Cond (μ S/cm)	pH (s.u.)
CLD-030	6/14/2008	6:45 AM	18.91	51.1	4.75	526	6.62
DAN-013	6/14/2008	7:40 AM	18.85	91.9	8.55	221	7.31
ELZ-004	6/14/2008	8:34 AM	21.90	55.8	4.86	314	6.96
HOP-011	6/14/2008	7:11 AM	22.16	56.6	4.91	553	6.77
NSH-002	6/14/2008	9:05 AM	24.33	93.7	7.83	411	7.24
NSH-047	6/14/2008	8:35 AM	21.01	64.5	5.74	409	6.95
NTH-009	6/14/2008	7:08 AM	21.28	80.6	7.14	173	6.97
RVM-005	6/14/2008	8:10 AM	20.30	89.1	8.03	712	7.18
RVM-038	6/14/2008	8:34 AM	20.14	65.5	5.93	391	7.14

Summary Statistics for Tributary Sites

Maximum	24.33	93.7	8.55	712	7.31
Minimum	18.85	51.1	4.75	173	6.62

Assabet River StreamWatch Water Quality Observations Report

Mainstem	Date	Time	Stage (feet)	Flow (cfs)	Air Temp (deg C)	Sample Depth (feet)	Total Depth (feet)
ABT-010	6/14/2008	7:45 AM			17.7		3
ABT-026	6/14/2008	7:20 AM			16.6		3
ABT-033	6/14/2008	6:54 AM			16.1		2
ABT-062	6/14/2008	6:28 AM			15.0		2
ABT-077	6/14/2008	9:00 AM		49			0
ABT-077	6/14/2008	9:00 AM			25		1
ABT-144	6/14/2008	8:16 AM			20		1
ABT-162	6/14/2008	7:57 AM			20		2
ABT-237	6/14/2008	6:55 AM			19		1
ABT-242	6/14/2008	8:10 AM			21		2
ABT-280	6/14/2008	7:48 AM			20		1
ABT-301	6/14/2008	7:22 AM			22		0.5
ABT-311	6/14/2008	7:35 AM	1.33	2.6			0
ABT-311	6/14/2008	7:35 AM			20		0.5
CND-009	6/14/2008	7:51 AM			23		1
CND-009	6/14/2008	9:00 AM		205			0
CND-045	6/14/2008	7:30 AM			22		2
CND-110	6/14/2008	6:58 AM			17		6.5
CND-161	6/14/2008	8:05 AM			16.0		2.5
SUD-005	6/14/2008	6:25 AM			12		7

Tributary	Date	Time	Stage (feet)	Flow (cfs)	Air Temp (deg C)	Sample Depth (feet)	Total Depth (feet)
CLD-030	6/14/2008	6:45 AM			18		1.5
DAN-013	6/14/2008	7:40 AM	0.77	0.81			0
DAN-013	6/14/2008	7:40 AM			19		1
ELZ-004	6/14/2008	8:34 AM	0.58	8.775			0
ELZ-004	6/14/2008	8:34 AM			20		0.25
HOP-011	6/14/2008	7:10 AM			18		1
HOP-011	6/14/2008	7:10 AM	4.19	3.26			0
NSH-002	6/14/2008	6:00 AM	0.78	12			0
NSH-002	6/14/2008	9:00 AM			17.0		0
NSH-047	6/14/2008	6:00 AM	3.09	3.3			0
NSH-047	6/14/2008	8:35 AM			16.1		1.5
NTH-009	6/14/2008	7:08 AM	4.12	3.9			0
NTH-009	6/14/2008	7:08 AM			17		1
RVM-005	6/14/2008	8:10 AM			23		0.5
RVM-038	6/14/2008	8:34 AM	8.36	5.18			0
RVM-038	6/14/2008	8:34 AM			24		1

Assabet River StreamWatch Water Quality Analysis Report

Mainstem Site Number	Date	Sample Time	TSS (mg/L)	TP (mg/L)	ortho - P (mg/L)	NO3 (mg/L)	NH3 (mg/L)	TKN (mg/L)	TN (mg/L)
ABT-010	7/19/2008	7:25 AM	4	0.080	0.031	0.89	0.14	0.29	1.18
ABT-026	7/19/2008	7:00 AM	3	0.074	0.028	0.98	0.05	0.14	1.12
ABT-033	7/19/2008	6:45 AM	2	0.068	0.027	1.10	0.06	0.14	1.24
ABT-062	7/19/2008	6:25 AM	5	0.137	0.022	0.91	0.07	0.16	1.07
ABT-077	7/19/2008	9:05 AM	2	0.056	0.017	0.70	0.04	0.14	0.84
ABT-077-ABT-010	7/19/2008	8:00 AM	3	0.074	0.027	0.91	0.06	0.14	1.12
ABT-144	7/19/2008	8:15 AM	3	0.088	0.046	3.68	0.09	0.18	3.86
ABT-162	7/19/2008	8:35 AM	1	0.056	0.020	1.92	0.03	0.13	2.05
ABT-237	7/19/2008	7:00 AM	4	0.140	0.085	5.10	0.09	0.21	5.31
ABT-242	7/19/2008	8:05 AM	3	0.194	0.130	4.17	0.09	0.22	4.39
ABT-280	7/19/2008	7:08 AM	2	0.434	0.392	6.49	0.08	0.21	6.70
ABT-301	7/19/2008	7:35 AM	4	0.464	0.399	8.10	0.09	0.23	8.33
ABT-301-ABT-144	7/19/2008	8:00 AM	3	0.140	0.085	4.17	0.09	0.21	4.39
ABT-311	7/19/2008	7:45 AM	4	0.044	0.020	0.74	0.04	0.14	0.88
CND-009	7/19/2008	8:02 AM	12	0.073	0.011	0.36	0.05	0.22	0.58
CND-045	7/19/2008	7:39 AM	16	0.078	0.017	0.09	0.06	0.19	0.28
CND-110	7/19/2008	7:09 AM	10	0.067	0.017	0.37	0.04	0.12	0.49
CND-161	7/19/2008	7:35 AM	10	0.061	0.019	0.44	0.04	0.14	0.58
CND-161-CND-005	7/19/2008	8:00 AM	11	0.070	0.017	0.365	0.045	0.165	0.535
SUD-005	7/19/2008	6:39 AM	12	0.056	0.007	<0.01	0.03	0.12	0.12

Summary Statistics for Mainstem Sites

Maximum	16	0.464	0.399	8.1	0.14	0.29	8.33
Minimum	1	0.044	0.007	<0.01	0.03	0.12	0.12

Tributary Site Number	Date	Sample Time	TSS (mg/L)	TP (mg/L)	ortho - P (mg/L)	NO3 (mg/L)	NH3 (mg/L)	TKN (mg/L)	TN (mg/L)
CLD-030	7/19/2008	6:50 AM	14	0.049	<0.006	0.36	0.06	0.31	0.67
DAN-013	7/19/2008	7:45 AM	3	0.047	0.023	0.15	0.03	0.09	0.24
ELZ-004	7/19/2008	8:45 AM	4	0.022	0.006	0.14	0.06	0.15	0.29
HOP-011	7/19/2008	7:24 AM	6	0.047	0.018	0.06	0.06	0.17	0.23
NSH-002	7/19/2008	8:25 AM	9	0.060	0.024	0.11	0.10	0.27	0.38
NSH-047	7/19/2008	8:05 AM	4	0.072	0.029	0.34	0.11	0.24	0.58
NTH-009	7/19/2008	7:20 AM	2	0.028	<0.006	0.14	0.07	0.10	0.24
RVM-005	7/19/2008	8:13 AM	9	0.049	0.019	0.47	0.16	0.32	0.79
RVM-038	7/19/2008	8:31 AM	5	0.050	0.022	0.21	0.08	0.15	0.36

Summary Statistics for Tributary Sites

Maximum	14	0.072	0.029	0.47	0.16	0.32	0.79
Minimum	2	0.022	<0.006	0.06	0.03	0.09	0.23

Assabet River StreamWatch Water Quality Measurements Report

Mainstem	Date	Sample Time	Water Temp (deg C)	DO Sat (%)	DO (mg/l)	Cond (μ S/cm)	pH (s.u.)
ABT-010	7/19/2008	7:25 AM	25.34	71.5	5.88	448	7.26
ABT-026	7/19/2008	7:00 AM	24.87	74.7	6.16	467	7.33
ABT-033	7/19/2008	5:58 AM	25.09	72.7	5.99	478	7.30
ABT-062	7/19/2008	6:25 AM	25.55	80.8	6.60	496	7.38
ABT-077	7/19/2008	9:12 AM	26.58	93.9	7.52	448	7.33
ABT-077-ABT-010	7/19/2008	8:00 AM	25.34	74.7	6.16	467	7.33
ABT-144	7/19/2008	8:15 AM	25.85	92.2	7.48	771	6.70
ABT-162	7/19/2008	8:35 AM	24.61	72.2	6.01	375	7.18
ABT-237	7/19/2008	7:04 AM	21.88	56.2	4.89	841	6.83
ABT-242	7/19/2008	8:05 AM	22.26	67.9	5.89	827	6.91
ABT-280	7/19/2008	7:08 AM	21.98	71.0	6.19	1044	6.71
ABT-301	7/19/2008	7:35 AM	21.66	66.2	5.80	1052	6.56
ABT-301-ABT-144	7/19/2008	8:00 AM	21.98	71.0	6.01	827	6.83
ABT-311	7/19/2008	7:45 AM	20.59	82.6	7.41	282	7.19
CND-009	7/19/2008	8:03 AM	26.85	95.2	7.59	478	7.37
CND-045	7/19/2008	7:39 AM	27.23	88.4	6.99	427	7.32
CND-110	7/19/2008	7:09 AM	26.67	61.4	6.63	433	7.05
CND-161	7/19/2008	7:35 AM	26.40	72.2	5.80	438	7.15
CND-161-CND-00	7/19/2008	8:00 AM	26.76	80.3	6.81	435	7.24
SUD-005	7/19/2008	6:44 AM	26.57	63.3	5.07	421	6.92

Summary Statistics for Mainstem Sites

Maximum	27.23	95.2	7.59	1052	7.38
Minimum	20.59	56.2	4.89	282	6.56

Assabet River StreamWatch Water Quality Measurements Report

Tributary	Date	Sample Time	Water Temp (deg C)	DO Sat (%)	DO (mg/l)	Cond (μ S/cm)	pH (s.u.)
CLD-030	7/19/2008	6:50 AM	21.23	56.7	5.03	537	6.63
DAN-013	7/19/2008	7:45 AM	21.69	90.1	7.91	222	7.12
ELZ-004	7/19/2008	8:50 AM	24.13	65.0	5.41	345	7.14
HOP-011	7/19/2008	7:24 AM	24.85	80.4	6.64	564	6.98
NSH-002	7/19/2008	8:25 AM	25.13	71.9	5.91	385	6.97
NSH-047	7/19/2008	8:05 AM	23.49	72.2	6.13	429	7.02
NTH-009	7/19/2008	7:20 AM	23.83	74.1	6.25	196	7.00
RVM-005	7/19/2008	8:13 AM	23.44	93.5	7.93	984	7.22
RVM-038	7/19/2008	8:31 AM	22.82	64.9	5.55	514	7.18

Summary Statistics for Tributary Sites

Maximum	25.13	93.5	7.93	984	7.22
Minimum	21.23	56.7	5.03	196	6.63

Assabet River StreamWatch Water Quality Observations Report

Mainstem	Date	Time	Stage (feet)	Flow (cfs)	Air Temp (deg C)	Sample Depth (feet)	Total Depth (feet)
ABT-010	7/19/2008	7:25 AM			21.1	1.0	2
ABT-026	7/19/2008	7:00 AM			20	1.0	2
ABT-033	7/19/2008	6:45 AM			20.0	1.0	2
ABT-062	7/19/2008	6:25 AM			18.33	1.0	1.5
ABT-077	7/19/2008	9:00 AM	1.80	60			0
ABT-077	7/19/2008	9:05 AM			19	1.5	2.5
ABT-144	7/19/2008	8:15 AM			25	0.5	1
ABT-162	7/19/2008	8:35 AM			26	1.0	2
ABT-237	7/19/2008	7:00 AM			23	1.0	2
ABT-242	7/19/2008	8:05 AM			23	1.5	1.5
ABT-280	7/19/2008	7:08 AM			20	0.5	0.5
ABT-301	7/19/2008	7:35 AM			22	0.30	0.5
ABT-311	7/19/2008	7:45 AM			55	0.5	0.5
ABT-311	7/19/2008	7:45 AM	0.92	0.06			0
CND-009	7/19/2008	8:02 AM			23	1.0	2
CND-009	7/19/2008	9:00 AM	4.32	160			0
CND-045	7/19/2008	7:39 AM			25	2.0	3
CND-110	7/19/2008	7:09 AM			21	2.0	4
CND-161	7/19/2008	7:35 AM			22.2	1.0	2
SUD-005	7/19/2008	6:39 AM			20	3.0	5

Tributary	Date	Time	Stage (feet)	Flow (cfs)	Air Temp (deg C)	Sample Depth (feet)	Total Depth (feet)
CLD-030	7/19/2008	6:50 AM			19	1.0	1
CLD-030	7/19/2008	6:50 AM	0.540				0
DAN-013	7/19/2008	7:45 AM	0.74	0.664			0
DAN-013	7/19/2008	7:45 AM			24	1.0	1.5
ELZ-004	7/19/2008	8:45 AM	0.64	11.54			0
ELZ-004	7/19/2008	8:45 AM			25	0.5	1
HOP-011	7/19/2008	7:24 AM			23	0.5	0.5
HOP-011	7/19/2008	7:24 AM	3.94	1.2			0
NSH-002	7/19/2008	8:25 AM	0.80	13			0
NSH-002	7/19/2008	8:25 AM			23.8	0.5	1
NSH-047	7/19/2008	8:05 AM			20.5	0.5	1.5
NSH-047	7/19/2008	8:05 AM	2.94	2.0			0
NTH-009	7/19/2008	7:20 AM			25	0.5	1.5
NTH-009	7/19/2008	7:20 AM	4.04	2.3			0
RVM-005	7/19/2008	8:13 AM			24	0.5	0.5
RVM-038	7/19/2008	8:31 AM			24	1.0	2
RVM-038	7/19/2008	8:31 AM	8.22	2.82			0

Assabet River StreamWatch Water Quality Analysis Report

Mainstem			TSS	TP	ortho - P	NO3	NH3	TKN	TN
Site Number	Date	Sample Time	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
ABT-010	8/16/2008	7:22 AM	9	0.096	0.041	0.52	0.12	0.27	0.79
ABT-026	8/16/2008	7:06 AM	5	0.090	0.045	0.55	0.05	0.16	0.71
ABT-033	8/16/2008	6:40 AM	6	0.103	0.055	0.67	0.06	0.19	0.86
ABT-062	8/16/2008	6:11 AM	7	0.104	0.056	0.66	0.16	0.30	0.96
ABT-077	8/16/2008	8:30 AM	8	0.100	0.054	0.68	0.06	0.16	0.84
ABT-077-ABT-010	8/16/2008	8:00 AM	7	0.100	0.054	0.66	0.06	0.19	0.84
ABT-144	8/16/2008	7:50 AM	6	0.128	0.071	1.17	0.06	0.19	1.36
ABT-162	8/16/2008	7:38 AM	13	0.184	0.069	1.03	0.11	0.19	1.22
ABT-237	8/16/2008	6:50 AM	7	0.132	0.093	1.51	0.20	0.44	0.95
ABT-242	8/16/2008	8:23 AM	3	0.119	0.095	1.23	0.05	0.18	1.41
ABT-280	8/16/2008	7:13 AM	5	0.179	0.138	1.94	0.07	0.23	2.17
ABT-301	8/16/2008	7:42 AM	2	0.152	0.125	2.08	0.08	0.24	2.32
ABT-301-ABT-144	8/16/2008	8:00 AM	5	0.132	0.093	1.23	0.07	0.19	1.36
ABT-311	8/16/2008	7:59 AM	<1	0.017	<0.006	0.02	0.04	0.19	0.21
CND-009	8/16/2008	8:55 AM	7	0.080	0.037	0.32	0.08	0.15	0.47
CND-045	8/16/2008	7:50 AM	4	0.083	0.042	0.24	0.09	0.24	0.48
CND-110	8/16/2008	8:20 AM	7	0.074	0.037	0.25	0.09	0.24	0.49
CND-161	8/16/2008	7:41 AM	7	0.057	0.025	0.04	0.21	0.32	0.36
CND-161-CND-005	8/16/2008	8:00 AM	7	0.077	0.037	0.245	0.09	0.24	0.475
SUD-005	8/16/2008	6:11 AM	6	0.059	0.024	0.04	0.04	0.11	0.15

Summary Statistics for Mainstem Sites

Maximum	13	0.184	0.138	2.08	0.21	0.44	2.32
Minimum	<1	0.017	<0.006	0.02	0.04	0.11	0.15

Tributary			TSS	TP	ortho - P	NO3	NH3	TKN	TN
Site Number	Date	Sample Time	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
CLD-030	8/16/2008	6:48 AM	3	<0.006	<0.006	0.18	0.11	0.14	0.32
DAN-013	8/16/2008	7:25 AM	3	0.043	0.006	0.03	0.13	0.25	0.28
ELZ-004	8/16/2008	8:10 AM	2	0.022	0.006	0.08	0.13	0.27	0.35
HOP-011	8/16/2008	7:31 AM	6	0.030	0.011	0.33	0.04	0.19	0.52
NSH-002	8/16/2008	8:47 AM	3	0.047	0.021	0.23	0.10	0.27	0.50
NSH-047	8/16/2008	8:23 AM	3	0.062	0.037	0.43	0.16	0.31	0.74
NTH-009	8/16/2008	7:08 AM	2	<0.006	<0.006	0.11	0.06	0.17	0.28
RVM-005	8/16/2008	9:15 AM	10	0.050	0.019	0.23	0.13	0.26	0.49
RVM-038	8/16/2008	7:25 AM	8	0.056	0.021	0.14	0.05	0.15	0.29

Summary Statistics for Tributary Sites

Maximum	10	0.062	0.037	0.43	0.16	0.31	0.74
Minimum	2	<0.006	<0.006	0.03	0.04	0.14	0.28

Assabet River StreamWatch Water Quality Measurements Report

Mainstem	Date	Sample Time	Water Temp (deg C)	DO Sat (%)	DO (mg/l)	Cond (μ S/cm)	pH (s.u.)
ABT-010	8/16/2008	7:22 AM	20.90	85.0	7.58	257	6.80
ABT-026	8/16/2008	7:06 AM	20.95	85.9	7.65	272	6.84
ABT-033	8/16/2008	6:40 PM	21.12	91.3	8.11	275	6.89
ABT-062	8/16/2008	6:18 AM	21.33	95.5	8.45	285	6.85
ABT-077	8/16/2008	8:30 AM	21.46	87.0	7.68	286	6.79
ABT-077-ABT-010	8/16/2008	8:00 AM	21.12	87.0	7.68	275	6.84
ABT-144	8/16/2008	7:50 AM	20.29	92.0	8.31	329	6.91
ABT-162	8/16/2008	7:38 AM	20.13	87.1	7.89	329	6.92
ABT-237	8/16/2008	9:52 AM	20.11	54.9	4.97	408	6.80
ABT-242	8/16/2008	8:23 AM	19.95	62.7	5.71	378	6.86
ABT-280	8/16/2008	7:13 AM	20.48	75.0	6.75	366	6.75
ABT-301	8/16/2008	7:42 AM	21.76	82.1	7.21	348	6.78
ABT-301-ABT-144	8/16/2008	8:00 AM	20.29	82.1	7.21	348	6.86
ABT-311	8/16/2008	7:59 AM	22.75	91.9	7.92	159	7.15
CND-009	8/16/2008	8:55 AM	21.63	84.3	7.41	282	6.66
CND-045	8/16/2008	7:50 AM	21.67	81.0	7.12	261	6.66
CND-110	8/16/2008	8:20 AM	21.55	47.4	4.18	263	6.61
CND-161	8/16/2008	7:41 AM	21.25	44.0	3.86	264	6.43
CND-161-CND-00	8/16/2008	8:00 AM	21.59	64.2	5.65	263	6.64
SUD-005	8/16/2008	6:11 AM	21.58	19.5	1.71	258	6.42

Summary Statistics for Mainstem Sites

Maximum	22.75	95.5	8.45	408	7.15
Minimum	19.95	19.5	1.71	159	6.42

Assabet River StreamWatch Water Quality Measurements Report

Tributary	Date	Sample Time	Water Temp (deg C)	DO Sat (%)	DO (mg/l)	Cond (μ S/cm)	pH (s.u.)
CLD-030	8/16/2008	6:48 AM	18.53	42.4	3.96	366	6.70
DAN-013	8/16/2008	7:25 AM	19.12	95.3	8.82	154	7.10
ELZ-004	8/16/2008	8:10 AM	20.37	65.7	5.92	237	6.69
HOP-011	8/16/2008	7:31 AM	19.29	81.8	7.53	396	6.87
NSH-002	8/16/2008	8:47 AM	20.57	67.6	6.06	257	6.54
NSH-047	8/16/2008	8:23 AM	19.47	74.3	6.82	351	6.51
NTH-009	8/16/2008	7:08 AM	18.72	84.6	7.89	137	6.90
RVM-005	8/16/2008	9:15 AM	19.96	96.9	8.80	447	6.72
RVM-038	8/16/2008	7:21 AM	19.85	60.5	5.51	328	6.63

Summary Statistics for Tributary Sites

Maximum		20.57	96.9	8.82	447	7.1
Minimum		18.53	42.4	3.96	137	6.51

Assabet River StreamWatch Water Quality Observations Report

Mainstem	Date	Time	Stage (feet)	Flow (cfs)	Air Temp (deg C)	Sample Depth (feet)	Total Depth (feet)
ABT-010	8/16/2008	7:22 AM			16.6	2	3.5
ABT-026	8/16/2008	7:06 AM			14.4	1	4
ABT-033	8/16/2008	6:40 AM			14	1.5	3
ABT-062	8/16/2008	6:11 AM			17.2	1.5	3
ABT-077	8/16/2008	8:30 AM		317			0
ABT-077	8/16/2008	8:30 AM			20	1	2.5
ABT-144	8/16/2008	7:50 AM			20	nr	4
ABT-162	8/16/2008	7:38 AM			20	2	3.5
ABT-237	8/16/2008	6:50 AM			17	2	3
ABT-242	8/16/2008	8:23 AM			21	1.25	2.5
ABT-280	8/16/2008	7:13 AM			17	0.75	1.5
ABT-301	8/16/2008	7:42 AM			17	0.5	1
ABT-311	8/16/2008	7:59 AM	nr	20			0
ABT-311	8/16/2008	7:59 AM			18	0.25	0.5
CND-009	8/16/2008	8:55 AM			nr	1.5	3
CND-009	8/16/2008	8:55 AM		1140			0
CND-045	8/16/2008	7:50 AM			17	2	3.5
CND-110	8/16/2008	8:20 AM			nr	4	7.5
CND-161	8/16/2008	7:41 AM			16.7	2.5	5
SUD-005	8/16/2008	6:11 AM			16	3.0	6

Tributary	Date	Time	Stage (feet)	Flow (cfs)	Air Temp (deg C)	Sample Depth (feet)	Total Depth (feet)
CLD-030	8/16/2008	6:48 AM			16	2	4
CLD-030	8/16/2008	6:48 AM	nr	nr			0
DAN-013	8/16/2008	7:25 AM			24	1	1.75
DAN-013	8/16/2008	7:25 AM	1.46	15.85			0
ELZ-004	8/16/2008	8:10 AM			21	1.0	1
ELZ-004	8/16/2008	8:10 AM	1.10	46			0
HOP-011	8/16/2008	7:31 AM			18	0.75	1.5
HOP-011	8/16/2008	7:31 AM	4.76	17.67			0
NSH-002	8/16/2008	8:47 AM	nr	115			0
NSH-002	8/16/2008	8:47 AM			15.5	1	2.5
NSH-047	8/16/2008	8:23 AM	3.76	16			0
NSH-047	8/16/2008	8:23 AM			16.7	1	2
NTH-009	8/16/2008	7:08 AM	5.10	41.1			0
NTH-009	8/16/2008	7:08 AM			19	1.0	1.5
RVM-005	8/16/2008	9:15 AM			nr	1.0	1
RVM-038	8/16/2008	7:21 AM	8.92	26.23			0
RVM-038	8/16/2008	7:25 AM			17		1

Assabet River StreamWatch Water Quality Analysis Report

Mainstem Site Number	Date	Sample Time	TSS (mg/L)	TP (mg/L)	ortho - P (mg/L)	NO3 (mg/L)	NH3 (mg/L)	TKN (mg/L)	TN (mg/L)
ABT-077	10/25/2008	7:15 AM	6	0.053	0.031	1.73	0.05	0.23	1.96
ABT-311	10/25/2008	8:30 AM	3	0.018	<0.006	0.08	<0.03	0.16	0.24
CND-009	10/25/2008	8:26 AM	4	0.045	0.018	0.95	<0.03	0.16	1.11

Summary Statistics for Mainstem Sites

Maximum	6	0.053	0.031	1.73	0.05	0.23	1.96
Minimum	3	0.018	<0.006	0.08	<0.03	0.16	0.24

Tributary Site Number	Date	Sample Time	TSS (mg/L)	TP (mg/L)	ortho - P (mg/L)	NO3 (mg/L)	NH3 (mg/L)	TKN (mg/L)	TN (mg/L)
CLD-030	10/25/2008	7:55 AM	2	0.014	<0.006	0.23	<0.03	0.15	0.38
DAN-013	10/25/2008	8:33 AM	2	0.016	<0.006	0.03	<0.03	0.11	0.14
ELZ-004	10/25/2008	7:29 AM	6	0.021	<0.006	0.23	<0.03	0.08	0.31
HOP-011	10/25/2008	8:15 AM	1	0.024	0.008	0.39	0.03	0.17	0.56
NSH-002	10/25/2008	8:17 AM	3	0.027	0.008	0.39	0.04	0.19	0.58
NSH-047	10/25/2008	7:55 AM	3	0.041	0.023	0.52	0.52	0.71	1.23
NTH-009	10/25/2008	8:06 AM	3	0.020	0.007	0.17	<0.03	0.12	0.29
RVM-038	10/25/2008	8:55 AM	2	0.031	0.008	0.13	<0.03	0.12	0.25

Summary Statistics for Tributary Sites

Maximum	6	0.041	0.023	0.52	0.52	0.71	1.23
Minimum	1	0.014	<0.006	0.03	<0.03	0.08	0.14

Assabet River StreamWatch Water Quality Measurements Report

Mainstem	Date	Sample Time	Water Temp (deg C)	DO Sat (%)	DO (mg/l)	Cond (μ S/cm)	pH (s.u.)
CND-009	2/26/2009	11:40 AM	0.73	98.9	14.14	300	7.15

Summary Statistics for Mainstem Sites

Maximum			0.73	98.9	14.14	300	7.15
Minimum			0.73	98.9	14.14	300	7.15

Tributary	Date	Sample Time	Water Temp (deg C)	DO Sat (%)	DO (mg/l)	Cond (μ S/cm)	pH (s.u.)
NSH-002	2/26/2009	10:15 AM	0.35	96.2	13.91	260	7.31
NSH-047	2/26/2009	10:34 AM	0.24	92.4	13.44	282	7.03
RVM-038	2/26/2009	11:15 AM	0.57	94.3	13.55	268	7.10

Summary Statistics for Tributary Sites

Maximum			0.57	96.2	13.91	282	7.31
Minimum			0.24	92.4	13.44	260	7.03

Assabet River StreamWatch Water Quality Observations Report

Mainstem	Date	Time	Stage (feet)	Flow (cfs)	Air Temp (deg C)	Sample Depth (feet)	Total Depth (feet)
ABT-077	10/25/2008	9:00 AM	2.04	94			0
ABT-077	10/25/2008	7:15 AM			4.44	0.5	1
ABT-311	10/25/2008	8:30 AM		4.0			0
ABT-311	10/25/2008	8:30 AM			8	0.5	0.5
CND-009	10/25/2008	8:05 AM		360			0
CND-009	10/25/2008	8:26 AM			6.5	1.5	2.25

Tributary	Date	Time	Stage (feet)	Flow (cfs)	Air Temp (deg C)	Sample Depth (feet)	Total Depth (feet)
CLD-030	10/25/2008	7:55 AM	2.16	nr			0
CLD-030	10/25/2008	7:55 AM			7	1.5	3
DAN-013	10/25/2008	8:33 AM	2.08	nr			0
DAN-013	10/25/2008	8:33 AM			6	0.3	0.5
ELZ-004	10/25/2008	7:29 AM			5	0.25	0.5
ELZ-004	10/25/2008	7:29 AM	0.68	13.59			0
HOP-011	10/25/2008	8:15 AM	4.30	4.77			0
HOP-011	10/25/2008	8:15 AM			5	1.5	2.5
NSH-002	10/25/2008	8:17 AM	1.30	30			0
NSH-002	10/25/2008	8:17 AM			5	0.5	0.5
NSH-047	10/25/2008	7:55 AM	3.52	8.5			0
NSH-047	10/25/2008	7:55 AM			3	1.0	2
NTH-009	10/25/2008	8:06 AM			8	0.75	1
NTH-009	10/25/2008	8:06 AM	4.30	9			0
RVM-038	10/25/2008	8:55 AM			8.5	1.0	1
RVM-038	10/25/2008	8:55 AM	8.86	22.98			0

Assabet River StreamWatch Water Quality Analysis Report

Mainstem			TSS	TP	ortho - P	NO3	NH3	TKN	TN
Site Number	Date	Sample Time	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
CND-009	2/26/2009	11:40 AM	1.5	0.03	0.03	0.77	<0.1	<0.5	1.02

Summary Statistics for Mainstem Sites

Maximum	1.5	0.03	0.03	0.77	<0.1	<0.5	1.02
Minimum	1.5	0.03	0.03	0.77	<0.1	<0.5	1.02

Tributary			TSS	TP	ortho - P	NO3	NH3	TKN	TN
Site Number	Date	Sample Time	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
NSH-002	2/26/2009	10:15 AM	1	0.02	0.01	0.59	<0.1	<0.5	0.84
NSH-047	2/26/2009	10:34 AM	1.0	0.02	0.02	0.60	0.30	0.67	1.27
RVM-038	2/26/2009	11:15 AM	<1	0.02	0.02	0.57	<0.1	<0.5	0.82

Summary Statistics for Tributary Sites

Maximum	1	0.02	0.02	0.6	0.3	0.67	1.27
Minimum	<1	0.02	0.01	0.57	<0.1	<0.5	0.82

Assabet River StreamWatch Water Quality Analysis Report

Mainstem			TSS	TP	ortho - P	NO3	NH3	TKN	TN
Site Number	Date	Sample Time	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
ABT-311	2/27/2009	11:55 AM	1.5	0.03	0.02	2.6	<0.1	<0.5	2.85

Summary Statistics for Mainstem Sites

Maximum	1.5	0.03	0.02	2.6	<0.1	<0.5	2.85
Minimum	1.5	0.03	0.02	2.6	<0.1	<0.5	2.85

Tributary			TSS	TP	ortho - P	NO3	NH3	TKN	TN
Site Number	Date	Sample Time	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)	(mg/L)
CLD-030	2/27/2009	11:25 AM	<1.0	0.01	<0.01	0.32	<0.1	<0.5	0.57
DAN-013	2/27/2009	10:31 AM	1	0.02	0.01	0.93	<0.1	<0.5	1.18
ELZ-004	2/27/2009	10:00 AM	1	0.02	0.01	0.35	<0.1	<0.5	0.60
HOP-011	2/27/2009	11:44 AM	<1	0.01	0.01	0.65	<0.1	<0.5	0.90
NTH-009	2/27/2009	10:59 AM	1	0.02	<0.01	0.44	<0.1	<0.5	0.69

Summary Statistics for Tributary Sites

Maximum	1	0.02	0.01	0.93	<0.1	<0.5	1.18
Minimum	<1	0.01	<0.01	0.32	<0.1	<0.5	0.57

Assabet River StreamWatch Water Quality Measurements Report

Mainstem	Date	Sample Time	Water Temp (deg C)	DO Sat (%)	DO (mg/l)	Cond (μ S/cm)	pH (s.u.)
CND-009	2/26/2009	11:40 AM	0.73	98.9	14.14	300	7.15

Summary Statistics for Mainstem Sites

Maximum			0.73	98.9	14.14	300	7.15
Minimum			0.73	98.9	14.14	300	7.15

Tributary	Date	Sample Time	Water Temp (deg C)	DO Sat (%)	DO (mg/l)	Cond (μ S/cm)	pH (s.u.)
NSH-002	2/26/2009	10:15 AM	0.35	96.2	13.91	260	7.31
NSH-047	2/26/2009	10:34 AM	0.24	92.4	13.44	282	7.03
RVM-038	2/26/2009	11:15 AM	0.57	94.3	13.55	268	7.10

Summary Statistics for Tributary Sites

Maximum			0.57	96.2	13.91	282	7.31
Minimum			0.24	92.4	13.44	260	7.03

Assabet River StreamWatch Water Quality Measurements Report

Mainstem	Date	Sample Time	Water Temp (deg C)	DO Sat (%)	DO (mg/l)	Cond (μ S/cm)	pH (s.u.)
ABT-311	2/27/2009	12:03 PM	5.58	95.7	12.03	136	6.94

Summary Statistics for Mainstem Sites

Maximum	5.58	95.7	12.03	136	6.94
Minimum	5.58	95.7	12.03	136	6.94

Tributary	Date	Sample Time	Water Temp (deg C)	DO Sat (%)	DO (mg/l)	Cond (μ S/cm)	pH (s.u.)
CLD-030	2/27/2009	11:25 AM	3.34	94.6	12.59	349	6.68
DAN-013	2/27/2009	10:31 AM	0.53	94.5	13.57	130	7.28
ELZ-004	2/27/2009	10:00 AM	1.31	91.2	12.85	179	7.11
HOP-011	2/27/2009	11:44 AM	1.91	93.8	12.97	361	6.82
NTH-009	2/27/2009	10:59 AM	1.13	94.7	13.33	100	7.08

Summary Statistics for Tributary Sites

Maximum	3.34	94.7	13.57	361	7.28
Minimum	0.53	91.2	12.59	100	6.68

Assabet River StreamWatch Water Quality Observations Report

Mainstem							
	Date	Time	Stage (feet)	Flow (cfs)	Air Temp (deg C)	Sample Depth (feet)	Total Depth (feet)
CND-009	2/26/2009	11:40 AM			5		2
CND-009	2/26/2009	10:00 AM	6.00	1090			0
Tributary							
	Date	Time	Stage (feet)	Flow (cfs)	Air Temp (deg C)	Sample Depth (feet)	Total Depth (feet)
NSH-002	2/26/2009	10:15 AM			5	1.0	1.5
NSH-002	2/26/2009	10:15 AM	2.20	72			0
NSH-047	2/26/2009	10:34 AM			7	2.0	2.5
NSH-047	2/26/2009	10:00 AM	4.03	25			0
RVM-038	2/26/2009	11:15 AM			4.5	1.0	1.5
RVM-038	2/26/2009	11:15 AM	9.15	41.2			0

Assabet River StreamWatch Water Quality Observations Report

Mainstem							
	Date	Time	Stage (feet)	Flow (cfs)	Air Temp (deg C)	Sample Depth (feet)	Total Depth (feet)
ABT-077	2/27/2009	10:00 AM	2.81	258			0
ABT-311	2/27/2009	12:03 PM	1.71	14			0
ABT-311	2/27/2009	11:55 AM			14	0.5	0.5
Tributary							
	Date	Time	Stage (feet)	Flow (cfs)	Air Temp (deg C)	Sample Depth (feet)	Total Depth (feet)
CLD-030	2/27/2009	11:25 AM			16	1.0	2.5
CLD-030	2/27/2009	11:25 AM	1.19	23.52			0
DAN-013	2/27/2009	10:31 AM			14	0.5	1.75
DAN-013	2/27/2009	10:31 AM	1.32	9.79			0
ELZ-004	2/27/2009	10:00 AM			13.5	0.5	0.5
ELZ-004	2/27/2009	10:00 AM	1.02	38.36			0
HOP-011	2/27/2009	11:44 AM			16	1.0	1.75
HOP-011	2/27/2009	11:44 AM	4.76	17.67			0
NTH-009	2/27/2009	10:59 AM			14	1.0	2.5
NTH-009	2/27/2009	10:59 AM	4.66	20.7			0