APPENDIX F
SMART MONITORING IN THE BLACKSTONE RIVER WATERSHED 2000 - 2004

"SMART" is the acronym for Strategic Monitoring and Assessment for River basin Teams. This program was specifically designed for the Massachusetts Watershed Initiative and for the empowerment of the watershed teams that are the heart of the effort. The program is being piloted in 6 (six) basins in DEP's Central Region through the cooperative efforts of the Division of Watershed Management, the Wall Experiment Station, the Nashua River Watershed Association and DEP's Central Regional Office.

As the name implies, the program has a monitoring strategy, and assessment tool and guidance for team monitoring roles:

1. Monitoring Strategy – SMART consists of three coordinated monitoring networks:

   A. Statewide – a small group of stations that provide a yearly snapshot of statewide trends. This information is used to evaluate the success of our regulatory programs, identify vulnerable resources, and provide information on natural variability necessary to develop ecoregion-based water quality standards.

   B. Rotating Basin – a dense network of stations on the 5-year basin cycle provides basin planning information for the issuance of NPDES and Water Management Act permits. It also provides a status report on the major rivers and where necessary, modeling and loading information for TMDL's.

   C. Local – volunteer monitors are used to extend the reach of federal and state monitoring programs to tributaries and headwater streams previously unsampled. These streams comprise 75% of the river miles in the state and are the areas most vulnerable to the impacts of nonpoint source pollutants.

2. Assessment Tool – a SMART report card is prepared for each river based on the monitoring information. The purpose of the report card is to make the information available and understandable to the team. Raw data for each stream in the basin is compiled under 8 subjects:

   1. Biology
   2. Chemistry
   3. Nutrients
   4. Toxics
   5. Sediments
   6. Water Quantity
   7. Habitat
   8. Bacteria
   9. Aesthetics
   10. Fish tissue

   Each subject is color coded under a pass/fail system summarizing the available data. The report card encapsulates available information in one or two pages, and points out gaps in information for future planning.

3. Team Monitoring Roles – SMART customizes monitoring roles based on interest and expertise. State and federal monitoring roles are fairly well defined but the Team environment constantly presents new opportunities for effective partnerships. The most exciting challenge has been in developing the role of volunteers. SMART utilizes volunteers to screen areas for intensive sampling during Year Two of the 5-year cycle. Volunteers can also work directly with DEP's regional office on local "hot spots" that fall outside of the 5-year cycle. Data collection emphasizes low level biological monitoring for screening, habitat monitoring for nonpoint source impacts and bacterial sampling for "hot spots".

SMART Program Statewide Strategy Implementation – Blackstone Watershed

Implementation of the Statewide Program proceeded with the formulation of specific program objectives, followed by site selection and then sampling. The specific objectives of the Statewide Program are to:

1. Document baseline water quality and provide reference distributions of key constituents;
2. Estimate loadings of nutrients, including phosphorus loadings to inland waters and nitrogen loadings to coastal waters,
3. Provide a database capable of detecting long term trends in water quality;
4. Assess the attainment of water quality goals including the national fishable /swimmable goal and the success of major pollution abatement projects; and
5. Provide basic information for MassDEP's regulatory programs such as the surface water quality standards, ecoregion development, 305(b) water quality assessment/ 303(d) Total Maximum Daily Load (TMDL) programs, and core requirements of the EPA/MassDEP Performance Partnership.

Site selection in the Blackstone watershed was based on the following strategic values:

1. Clean water reference sites, which provide reference distributions for ecoregion analysis and site-specific program and policy development;
2. Impacted sites below major facilities or projects that were historically the most polluted; and
3. Boundary conditions that could be used to calculate loadings of pollutants leaving one watershed/subwatershed and entering another.

SMART monitoring in the Blackstone watershed began in March 2000. The junction of the Middle River and Mill Brook in Worcester forms the Blackstone River. Station locations within the Blackstone watershed include 3 stations on the mainstem, and 2 stations on major tributaries:

1. Station BS09C, Blackstone River at Millbury Street (near the southern terminus with State Road 146), Worcester;
2. Station BS14A, Blackstone River at the Northbridge USGS flow gaging station;
3. Station BS18A, rail road trestle on the Blackstone River (accessed from State Road 122), Millville;
4. Station QU02A, Quinsigamond River at abandoned Bridge Street bridge (upstream of State Road 140), Grafton; and
5. Station WR03, West River at East Hartford Avenue, Uxbridge.

Station WR03 serves as a reference station within the Blackstone watershed. Stations BS09C and BS14A are located within impact zones, while Station BS18A and QU02A represent boundary conditions and/or the water quality of the Blackstone River as it leaves Massachusetts.

Stations in the Blackstone watershed were sampled in March, May, July, September, and November 2000; February, April, June, August, October and December 2001; March, April, June, August and October of 2002; January, April, May, July, September and November 2003; and March, April, June, August and October 2004.

BLACKSTONE RIVER (Saris: 5131000)
Unique_ID: 680 Station: BS09C, Mile Point: 47.3
Description: Millbury Street bridge, Worcester (prior to October 2002 at old Millbury Street location approximately 350 feet downstream/south of current bridge, see April 2001 color ortho photo).

Date	OWMID	Time	Depth	Temp	pH	Cond@ 25C	TDS	DO	SAT
		(24hr)	(m)	(C)	(SU)	(uS/cm)	(mg/l)	(mg/l)	(%)
3/15/2000	SM-0008	09:17	0.1i	5.3	7.0	345	221	13.1	101
5/17/2000	SM-0055	08:53	1.0	15.7	7.0	313	201	9.6	95
7/19/2000	SM-0102	09:11	1.2	20.6	7.1c	454	291	7.8	86
9/20/2000	SM-0150	10:02	1.3	19.6	7.0	239	153	8.6	93
11/29/2000	SM-0189	09:19	1.2	4.3	6.9	391	250	12.6	95

Date	OWMID	Time	Depth	Temp	pH	Cond@ 25C	TDS	SAL	DO	SAT
		(24hr)	(m)	(C)	(SU)	(uS/cm)	(mg/l)	(ppt)	(mg/l)	(%)
3/14/2001	SM-0227	09:38	0.9	2.0	6.5	1,250c	800c	--	13.5	97
4/25/2001	SM-0267	09:18	0.6	14.8	7.2c	433	277	--	10.5	101
6/27/2001	SM-0307	09:24	0.9	23.6	6.7iu	513	328	--	7.9i	90i
8/22/2001	SM-0347	08:53	1.0	21.8	7.1c	535	342	--	7.5i	83i
11/7/2001	SM-0387	08:53	1.1	8.2	6.9cu	448	287	--	11.6	97
12/17/2001	SM-0427	09:15	0.4	3.7	6.8	529	338	--	12.6	93

Description: downstream/south of Blackstone River Road Bridge, see April 2001 color ortho photo).

Date	OWMID	Time	Depth	Temp	pH	Cond@ 25C	TDS	DO	SAT
		(24hr)	(m)	(C)	(SU)	(uS/cm)	(mg/l)	(mg/l)	(%)
03/06/02	SM-0466	09:10	0.9	3.3	6.9	588	376	13.3	97
04/24/02	SM-0506	09:00	1.2	9.6	7.1 c	529	339	11.1	95
06/26/02	SM-0546	09:00	1.0	21.3	7.0 c	535	342	8.3	92
10/30/02	SM-0626	08:52	0.2	7.8	7.2 c	412	264	11.6	95

Date	OWMID	Time	Depth	Temp	pH	Cond@ 25C	TDS	SAL	DO	SAT
		(24hr)	(m)	(C)	(SU)	(uS/cm)	(mg/l)	(ppt)	(mg/l)	(%)
1/29/2003	SM-0666	08:50	0.1 i	0.88	6.8	692	443	--	13.2	94
4/2/2003	SM-0707	08:49	0.6	5.6	6.5 u	403	258	--	12.4	100
5/21/2003	SM-0748	08:44	0.3	16.6	7.3 cu	570	365	--	8.8	91
7/23/2003	SM-0789	08:51	0.4	22.4	7.0 c	463	296	--	7.6	89
9/24/2003	SM-0841	08:40	0.8	18.4	7.1 cu	385	250	--	8.9	95
11/20/2003	SM-0884	08:30	0.8	10.2	6.7	303	197	--	10.6	94

Date	OWMID	Time	Depth	Temp	pH	Cond@ 25°C	TDS	DO	SAT
		(24hr)	(m)	(°C)	(SU)	(uS/cm)	(mg/L)	(mg/L)	(%)
03/03/04	SM-5926	09:17	0.5	4.8	7.2 c	544	354	13.6	106
04/28/04	SM-5967	09:21	0.7	12.5	7.1 c	316	205	10.9	103
06/23/04	SM-6008	09:13	0.3	19.0	7.2	673	438	8.4	91
08/25/04	SM-6050	09:06	0.4	20.3	7.3	485	315	8.6	95
10/27/04	SM-6091	09:01	0.4	9.0	7.2	431	280	11.6	101

BLACKSTONE RIVER (Saris: 5131000)
Unique_ID: 767 Station: BS14A, Mile Point: 34.8
Description: at USGS gage #01110500 downstream/southeast of Sutton Street bridge, Northbridge

Date	OWMID	Time	Depth	Temp	pH	Cond@ 25C	TDS	DO	SAT
		(24hr)	(m)	(C)	(SU)	(uS/cm)	(mg/l)	(mg/l)	(%)
3/15/2000	SM-0012	11:47	0.1i	7.0	7.2c	429	274	13.0	104
5/17/2000	SM-0059	11:37	** i	16.7	6.9	412	263	9.1	92
7/19/2000	SM-0106	11:43	0.3	21.2	7.1c	491	314	8.0	88
9/20/2000	SM-0154	12:49	0.5	21.1	6.7	329	211	7.6	84
11/29/2000	SM-0193	11:54	0.4	6.4	7.1c	412	264	12.0	96

Date	OWMID	Time	Depth	Temp	pH	Cond@ 25C	TDS	SAL	DO	SAT
		(24hr)	(m)	(C)	(SU)	(uS/cm)	(mg/l)	(ppt)	(mg/l)	(%)
3/14/2001	SM-0231	12:54	0.4	3.8	6.9cu	1,055c	675c	--	13.4u	102u
4/25/2001	SM-0271	13:56	0.1i	14.9	7.6c	523	334	--	11.3	110
6/27/2001	SM-0311	12:21	0.6	24.8	6.9i	520	333	--	8.4i	99i
8/22/2001	SM-0351	11:14	0.6	23.8	7.2cu	550	352	--	8.6i	100
11/7/2001	SM-0391	11:42	0.4	10.2	7.0c	498	319	--	10.5	93
12/17/2001	SM-0431	12:29	0.3	5.0	6.9c	568	363	--	11.6u	88u

Date	OWMID	Time	Depth	Temp	pH	Cond@ 25C	TDS	DO	SAT
		(24hr)	(m)	(C)	(SU)	(uS/cm)	(mg/l)	(mg/l)	(%)
03/06/02	SM-0470	12:07	0.2	4.6	7.1 c	648	415	12.9	97
04/24/02	SM-0510	11:26	0.5	11.1	7.1 c	592	379	11.1	99
06/26/02	SM-0550	11:42	0.5	22.8	7.1 c	553	354	9.0	103
08/28/02	SM-0590	11:08	0.3	21.0	7.2 c	680	435	8.3	91
10/30/02	SM-0630	11:16	0.3	9.2	6.8	504	323	11.0	94

Date	OWMID	Time	Depth	Temp	pH	Cond@ 25C	TDS	SAL	DO	SAT
		(24hr)	(m)	(C)	(SU)	(uS/cm)	(mg/l)	(ppt)	(mg/l)	(%)
1/29/2003	SM-0670	10:47	0.3	1.7	7.1 c	722 c	462 c	--	13.1	96
4/2/2003	SM-0711	11:17	0.6	7.1	6.7	496	317	--	12.2 u	103 u
5/21/2003	SM-0752	10:54	0.4	16.8	6.7	654	419	--	7.5	79
7/23/2003	SM-0793	11:07	0.2	22.5	7.0 c	504	323	--	7.6	89
9/24/2003	SM-0845	11:30	0.5	19.0	7.0 c	361	235	--	8.3	89
11/20/2003	SM-0888	10:48	0.7	10.3	7.1 c	494	321	--	10.7	96

Date	OWMID	Time	Depth	Temp	pH	Cond@ 25°C	TDS	DO	SAT
		(24hr)	(m)	(°C)	(SU)	(uS/cm)	(mg/L)	(mg/L)	(%)
03/03/04	SM-5930	11:24	0.6	6.9	7.5 cu	600	390	13.6	112
04/28/04	SM-5971	12:11	0.8	13.1	7.2 c	407	265	11.0	105
06/23/04	SM-6012	12:04	0.5	21.4	7.4	625	406	9.6	108
08/25/04	SM-6054	12:12	0.5	21.4	7.5	591	384	10.0	113
10/27/04	SM-6095	11:25	0.6	10.1	7.3	498	324	11.3	101

BLACKSTONE RIVER (Saris: 5131000)
Unique_ID: 688 Station: BS18A, Mile Point: 19.7
Description: downstream/east off Conrail railroad trestle, Millville. (center of northern channel - south off Route 122 approximately 0.5 miles southeast of the Central Street,/Route 122 intersection)

Date	OWMID	Time	Depth	Temp	pH	Cond@ 25C	TDS	DO	SAT
		(24hr)	(m)	(C)	(SU)	(uS/cm)	(mg/l)	(mg/l)	(%)
3/15/2000	SM-0010	10:22	0.2	6.1	6.8	302	193	12.0	94
5/17/2000	SM-0057	09:53	1.9	15.7	6.6	286	183	8.3	82
7/19/2000	SM-0104	10:18	2.2	22.2	7.0	346	221	7.4	83
9/20/2000	SM-0152	11:34	2.4	19.8	6.8	327	210	7.8	84
11/29/2000	SM-0191	10:26	1.9	4.6	6.8	309	198	12.0	91

Date	OWMID	Time	Depth	Temp	pH	Cond@ 25C	TDS	SAL	DO	SAT
		(24hr)	(m)	(C)	(SU)	(uS/cm)	(mg/l)	(ppt)	(mg/l)	(%)
3/14/2001	SM-0229	10:52	0.6	2.6	6.7	1,062c	680c	--	12.7	93
4/25/2001	SM-0269	10:28	1.2	15.7	7.0c	389	249	--	8.9	87
6/27/2001	SM-0309	10:33	1.8	24.0	6.6i	353	226	--	7.4i	86i
8/22/2001	SM-0349	09:54	1.6	23.1	6.9c	412	264	--	6.8i	78i
11/7/2001	SM-0389	10:04	2.0	8.2	6.7	415	266	--	9.8	82
12/17/2001	SM-0429	10:39	1.5	4.1	6.7	570	365	--	11.0u	82u

Date	OWMID	Time	Depth	Temp	pH	Cond@ 25C	TDS	DO	SAT
		(24hr)	(m)	(C)	(SU)	(uS/cm)	(mg/l)	(mg/l)	(%)
03/06/02	SM-0468	10:22	1.5	3.4	6.8	467	299	12.7	93
04/24/02	SM-0508	10:06	1.7	9.6	6.9 c	454	290	10.2	87
06/26/02	SM-0548	10:08	1.7	22.2	6.8	405	259	7.8	88
08/28/02	SM-0588	09:28	1.8	20.6	7.0 c	541	346	6.9	76
10/30/02	SM-0628	09:58	1.3	7.9	6.7	406	260	10.7	88

Date	OWMID	Time	Depth	Temp	pH	Cond@ 25C	TDS	SAL	DO	SAT
		(24hr)	(m)	(C)	(SU)	(uS/cm)	(mg/l)	(ppt)	(mg/l)	(%)
	No Flow	--	--	--	--	--	--	--	--	--
4/2/2003	SM-0709	09:53	2.0	6.2	6.4	361	231	--	11.5	94
5/21/2003	SM-0750	09:40	1.3	16.7	6.6	483	309	--	7.7	80
7/23/2003	SM-0791	09:47	2.2	22.7	6.9 c	383	245	--	7.1	85
9/24/2003	SM-0843	09:52	1.9 u	18.3	7.1 c	503	327	--	7.8	83
11/20/2003	SM-0886	09:26	1.3 u	8.8	6.9	353	230	--	10.8	93

Date	OWMID	Time	Depth	Temp	pH	Cond@ 25°C	TDS	DO	SAT
		(24hr)	(m)	(°C)	(SU)	(uS/cm)	(mg/L)	(mg/L)	(%)
03/03/04	SM-5928	10:06	0.9	5.7	7.2 c	418	271	12.6	100
04/28/04	SM-5969	10:25	0.5	12.7	6.9 c	288	187	10.0	94
06/23/04	SM-6010	10:10	1.8	20.3	7.2	462	300	8.1	90
08/25/04	SM-6052	10:19	0.4	20.4	7.2	425	276	8.0	89
10/27/04	SM-6093	09:58	2.2	8.8	7.1	377	245	10.9	94

WEST RIVER (Saris: 5131800)
Unique_ID: 515 Station: WR03, Mile Point: 3.3
Description: upstream/north, of East Hartford Street bridge, Uxbridge.

Date	OWMID	Time	Depth	Temp	pH	Cond@ 25C	TDS	DO	SAT
		(24hr)	(m)	(C)	(SU)	(uS/cm)	(mg/l)	(mg/l)	(%)
3/15/2000	SM-0011	11:00	0.6	5.3	5.9	165	106	11.7	90
5/17/2000	SM-0058	10:44	0.3	15.5	6.2	180	115	9.0	88
7/19/2000	SM-0105	11:01	0.4	21.1	6.3	198	127	5.6	62
9/20/2000	SM-0153	12:13	0.5u	19.2	6.3	324	207	7.5	81
11/29/2000	SM-0192	11:06	0.3	2.9	6.2	229	147	11.5	84

Date	OWMID	Time	Depth	Temp	pH	Cond@ 25C	TDS	SAL	DO	SAT
		(24hr)	(m)	(C)	(SU)	(uS/cm)	(mg/l)	(ppt)	(mg/l)	(%)
3/14/2001	SM-0230	11:59	0.5	0.50	5.7	326	209	--	11.8	82
4/25/2001	SM-0270	11:30	0.4	15.2	6.3	238	152	--	7.2	70
6/27/2001	SM-0310	11:34	0.3	23.5	6.0i	210	135	--	4.9i	56i
8/22/2001	SM-0350	10:37	0.6	22.7u	6.4	246	157	--	5.9i	67
11/7/2001	SM-0390	10:45	0.1i	7.4u	6.5	243	155	--	10.4	86
12/17/2001	SM-0430	11:30	0.1i	2.1	6.3	316	202	--	11.8u	83u

Date	OWMID	Time	Depth	Temp	pH	Cond@ 25C	TDS	DO	SAT
		(24hr)	(m)	(C)	(SU)	(uS/cm)	(mg/l)	(mg/l)	(%)
03/06/02	SM-0469	11:11	0.3	2.4	6.2	268	172	12.6	90
04/24/02	SM-0509	10:49	0.4	9.1	6.5	293	188	10.8	91
06/26/02	SM-0549	11:00	0.4	22.0	6.3	243	155	7.3	82
08/28/02	SM-0589	10:20	0.1 i	20.7	6.7	249	159	6.8	74
10/30/02	SM-0629	10:43	0.2	6.2	6.1	313	201	10.0	79

Date	OWMID	Time	Depth	Temp	pH	Cond@ 25C	TDS	SAL	DO	SAT
		(24hr)	(m)	(C)	(SU)	(uS/cm)	(mg/l)	(ppt)	(mg/l)	(%)
	No Flow	--	--	--	--	--	--	--	--	--
4/2/2003	SM-0710	10:40	0.7	8.2	5.5	184	117	--	10.4	90
5/21/2003	SM-0751	10:22	0.3	16.8	6.3	280	179	--	8.3	87
7/23/2003	SM-0792	10:31	0.4	21.8	6.0	230	147	--	2.3 u	27 u
9/24/2003	SM-0844	10:40	0.8	16.8	6.4	244	159	--	5.3	55
11/20/2003	SM-0887	10:16	0.8	8.5	6.5 u	249	162	--	9.7	83

Date	OWMID	Time	Depth	Temp	pH	Cond@ 25°C	TDS	DO	SAT
		(24hr)	(m)	(°C)	(SU)	(uS/cm)	(mg/L)	(mg/L)	(%)
03/03/04	SM-5929	10:48	1.0	3.1	6.8 u	239	155	11.6	86
04/28/04	SM-5970	11:25	1.0	13.1	6.2	179	116	8.2	78
06/23/04	SM-6011	11:17	0.4	20.5	6.7	253	164	7.6	85
08/25/04	SM-6053	11:21	0.4	20.0	6.6	257	167	6.2	68
10/27/04	SM-6094	10:45	0.8	7.5	6.5	250	163	9.5	80

QUINSIGAMOND RIVER (Saris: 5132425)
Unique_ID: 689 Station: QU02A, Mile Point: 3.7
Description: off upstream side of abandoned Bridge Street bridge west of Route 140, Grafton. (see 1997 ortho photo)

Date	OWMID	Time	Depth	Temp	pH	Cond@ 25C	TDS	DO	SAT
		(24hr)	(m)	(C)	(SU)	(uS/cm)	(mg/l)	(mg/l)	(%)
3/15/2000	SM-0013	12:21	0.6	5.7	7.1c	413	265	12.8	99
5/17/2000	SM-0060	12:12	0.7	18.0	7.2c	421	269	9.5	98
7/19/2000	SM-0107	12:12	0.7	22.7	7.0	415	265	7.8	89
9/20/2000	SM-0149	09:20	0.8	18.9	6.8	385	247	8.4	90
11/29/2000	SM-0194	12:30	0.6	3.8	7.0	365	234	12.8	95

Date	OWMID	Time	Depth	Temp	pH	Cond@ 25C	TDS	SAL	DO	SAT
		(24hr)	(m)	(C)	(SU)	(uS/cm)	(mg/l)	(ppt)	(mg/l)	(%)
3/14/2001	SM-0232	13:38	0.8	1.4	6.4	640	410	--	12.7	90
4/25/2001	SM-0272	14:38	0.7	16.8	7.3c	558	357	--	9.3	94
6/27/2001	SM-0312	12:58	0.5	27.6	6.8i	511	327	--	7.2i	88i
8/22/2001	SM-0352	11:51	0.7	24.1	7.0c	510	327	--	7.5i	87
11/7/2001	SM-0392	12:14	0.3	6.9u	6.6	552	353	--	7.1	57
12/17/2001	SM-0432	13:16	0.4	3.6	7.0c	575u	368u	--	12.5	92

Date	OWMID	Time	Depth	Temp	pH	Cond@ 25C	TDS	DO	SAT
		(24hr)	(m)	(C)	(SU)	(uS/cm)	(mg/l)	(mg/l)	(%)
03/06/02	SM-0471	12:45	0.5	3.2	7.1 c	614	393	13.1	96
04/24/02	SM-0511	12:00	0.6	11.1	7.2 c	604	387	10.6	94
06/26/02	SM-0551	12:23	0.6	24.9	6.9 c	590	378	7.4	88
08/28/02	SM-0591	11:43	0.1 i	17.6	7.0 c	724 c	463 c	7.8	81
10/30/02	SM-0631	11:49	0.3	7.8	6.9 c	504	323	11.5	95

Date	OWMID	Time	Depth	Temp	pH	Cond@ 25C	TDS		DO	SAT
		(24hr)	(m)	(C)	(SU)	(uS/cm)	(mg/l)		(mg/l)	(%)
1/29/2003	SM-0671	11:24	0.3	1.4	6.6 u	684 u	438 u		13.3 u	96 u
4/2/2003	SM-0712	11:50	1.0	5.9	6.7	597	382		11.9	97
5/21/2003	SM-0753	11:24	0.3	19.5	6.9 c	691	442		8.4	93
7/23/2003	SM-0794	11:41	0.2	24.2	6.9 c	521 u	334 u		7.3	89
9/24/2003	SM-0846	12:03	0.6	19.3	7.0 c	487	316		8.4	91
11/20/2003	SM-0889	11:21	0.7	8.4	7.2 c	543	353		11.7	100

Date	OWMID	Time	Depth	Temp	pH	Cond@ 25°C	TDS	DO	SAT
		(24hr)	(m)	(°C)	(SU)	(uS/cm)	(mg/L)	(mg/L)	(%)
03/03/04	SM-5931	11:55	0.6	5.7	7.4 c	544	353	13.0	104
04/28/04	SM-5972	12:48	0.7	13.8	7.3 c	556	361	10.8	104
06/23/04	SM-6013	12:35	0.6	22.8	7.3	566	368	8.0	93
08/25/04	SM-6055	12:56	0.5	23.1	7.1	533	346	8.0	94
10/27/04	SM-6096	11:57	0.6	9.0	7.3	518	337	11.7	102

BLACKSTONE RIVER (Saris: 5131000)
Unique_ID: 680 Station: BS09C, Mile Point: 47.3
Description: Millbury Street bridge, Worcester (prior to October 2002 at old Millbury Street location approximately 350 feet downstream/south of current bridge, see April 2001 color ortho photo).

Date	OWMID	QAQC	Time	Depth	Alkalinity	Hardness	Chloride	SSolids	Turb	TKN	NH3-N	NO3-NO2-N	TPhos	Fecal
			24hr	(m)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(NTU)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(cfu/100ml)
3/15/2000	SM-0008	SM-0009	09:17	--	22	50	77	1.9	3.3	0.24	<0.02	0.56	0.033	--
5/17/2000	SM-0055	SM-0056	08:53	--	25	46	63	3.1	2.2	0.47	0.05	0.38	0.046	--
7/19/2000	SM-0102	SM-0103	09:11	--	38	70	105 b	5.9	6.0	0.73	0.11	0.43	0.088	--
9/20/2000	SM-0150	SM-0151	10:02	--	17	31	53	9.9	5.9	0.54	0.11	0.32	0.094	--
11/29/2000	SM-0189	SM-0190	09:19	--	26	51	87	1.9	3.2	0.38	0.11d	0.36	0.044	--

Date	OWMID	QAQC	Time	Depth	TURB	CHLOR	ALK	HARD	NH3-N	NO3-NO2-N	TKN	TP	SSOLIDS
			(24hr)	(m)	NTU	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
3/14/2001	SM-0227	SM-0228	09:39	--	11m	350m	21m	69m	0.20m	0.68m	0.91m	0.062m	8.1m
4/25/2001	SM-0267	SM-0268	09:18	--	2.9m	97m	25m	62m	<0.02m	0.50m	0.42m	0.038m	3.5m
6/27/2001	SM-0308	SM-0307	**	--	3.0m	110m	37m	72m	0.26bdm	0.49m	0.59m	0.075m	3.2m
8/22/2001	SM-0348	SM-0347	**	--	2.9m	120m	56m	89m	##dm	0.53m	0.44m	0.053m	1.9m
11/7/2001	SM-0388	SM-0387	**	--	4.0m	100m	27m	59m	##dm	0.09m	0.63m	0.050m	##dm
12/17/2001	SM-0428	SM-0427	**	--	3.8m	130m	30hm	63m	0.12m	0.37m	0.57m	0.13dm	5.1m

Date	OWMID	QAQC	Time	Turb	Turb	Chloride	Alk	Hard	NH3-N	NO3-NO2-N	TKN	TP	TSS
			(24hr)	NTU	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
03/06/02	SM-0466	SM-0467	09:00	3.6 m	--	150 m	22 m	59 m	<0.02 m	0.40 m	0.41 m	0.046 m	2.4 m
03/06/02	SM-0467	SM-0466	09:00	3.7 m	--	150 m	22 m	60 m	<0.02 m	0.39 m	0.39 m	0.041 m	2.1 m
04/24/02	SM-0506	SM-0507	08:50	--	3.1	130	35	82	0.12	0.42	0.54	0.048	3.3
04/24/02	SM-0507	SM-0506	08:50	--	3.2	130	36	82	0.10	0.40	0.55	0.040	3.3
06/26/02	SM-0546	SM-0547	08:50	--	3.1 m	120 m	37 m	79 m	0.06 m	0.56 m	0.49 m	0.031 dm	4.1 m
06/26/02	SM-0547	SM-0546	08:50	--	3.1 m	120 m	36 m	79 m	0.06 m	0.54 m	0.48 m	0.058 dm	4.0 m
10/30/02	SM-0626	SM-0627	08:50	--	2.4	92	29	61	0.06	0.38	0.51	0.037	1.5
10/30/02	SM-0627	SM-0626	08:50	--	2.6	92	27	62	0.07	0.35	0.49	0.036	1.5

Date	OWMID	QAQC	Time	Turb	Chloride	Alk	Hard	NH3-N	NO3-NO2-N	TKN	TN	TP	TSS
			(24hr)	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
1/29/2003	SM-0666	SM-0667	08:45	2.8	170	36	88	0.22	1.0	0.50	--	0.028	1.7
4/2/2003	SM-0707	SM-0708	08:50	2.1	95	17	50	<0.06	0.61	0.37	--	0.028	2.0
5/21/2003	SM-0748	SM-0749	08:45	2.8	130	33	82	<0.06	0.51	0.53 b	--	0.044	4.1
7/23/2003	SM-0789	SM-0790	08:45	7.5 b	100	27	62	0.09	0.53	0.57	--	0.079	6.6
9/24/2003	SM-0841	SM-0842	08:40	12 b	86	27	52	## bh	0.22 h	--	## h	0.084 h	12
11/20/2003	SM-0884	SM-0885	08:30	17	66	22	37	0.29	0.36	--	## bh	0.33	37 h

Date	OWMID	QAQC	Time	Turb	Chloride	Alk	Hard	NH3-N	NH3-N	NO3-NO2-N	TN	TP	TSS
			(24hr)	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
03/03/04	SM-0926	SM-0927	08:55	6.0*	--	--	--	0.04 j	--	0.62 j	1.1 dj	0.070	--
04/28/04	SM-0967	SM-0968	09:05	4.4*	--	--	--	<0.01	--	0.45 j	0.77 j	0.045 j	--
06/23/04	SM-1008	SM-1009	08:50	6.2*	--	--	--	0.05 j	--	0.70 dj	1.2 dj	0.060	--
08/25/04	SM-1050	SM-1051	09:00	4.1	110	34	74	0.04	--	0.39	0.90	0.057	3.8
10/27/04	SM-1091	SM-1092	08:50	3.0	93	30	65	--	0.09 hj	0.44	0.79	0.042	2.3

BLACKSTONE RIVER (Saris: 5131000)
Unique_ID: 767 Station: BS14A, Mile Point: 34.8
Description: at USGS gage #01110500 downstream/southeast of Sutton Street bridge, Northbridge

Date	OWMID	QAQC	Time	Depth	Alkalinity	Hardness	Chloride	SSolids	Turb	TKN	NH3-N	NO3-NO2-N	TPhos	Fecal
			24hr	(m)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(NTU)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(cfu/100ml)
3/15/2000	SM-0012		11:47	--	31	55	93	4.4	2.9	1.7	1.5	0.83	0.30	--
5/17/2000	SM-0059		11:37	--	31	50	82	26	3.0	2.0	1.7	1.2	0.45	--
7/19/2000	SM-0106		11:43	--	35	67	105 b	12	5.4	0.88	0.10	2.0	0.49	--
9/20/2000	SM-0154		12:49	--	21	37	56	40	9.7	1.9	0.69	1.7	0.77	--
11/29/2000	SM-0193		11:54	--	29	51	82	3.2	3.1	1.5	1.1	1.8	0.50	--

Date	OWMID	QAQC	Time	Depth	TURB	CHLOR	ALK	HARD	NH3-N	NO3-NO2-N	TKN	TP	SSOLIDS
			(24hr)	(m)	NTU	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
3/14/2001	SM-0231	--	12:54	--	9.6	280	27	66	1.8	0.68	2.7	0.38	16
4/25/2001	SM-0271	--	13:56	--	2.6	110	30	64	1.7	0.76	2.1	0.22	6.5
6/27/2001	SM-0311	--	12:10	--	5.2	110	27	63	0.35b	2.2	1.0	0.41	8.9
8/22/2001	SM-0351	--	11:10	--	3.3	110	35	70	<0.02	2.8	0.69	0.44	6.7
11/7/2001	SM-0391	--	11:35	--	2.9	98	32	61	0.84	3.4	##h	0.29	5.3
12/17/2001	SM-0431	--	12:25	--	3.4	120	32h	59	1.5	3.9	2.2	0.54	5.2

Date	OWMID	QAQC	Time	Turb	Turb	Chloride	Alk	Hard	NH3-N	NO3-NO2-N	TKN	TP	TSS
			(24hr)	NTU	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
03/06/02	SM-0470	--	12:00	2.8	--	160	28	64	1.4	1.5	1.7	0.39	15
04/24/02	SM-0510	--	11:25	--	3.0	140	30	77	0.76	2.4	1.2	0.33	6.2
06/26/02	SM-0550	--	11:35	--	3.1	120	28	71	<0.06	2.4	0.66	0.24 d	6.0
08/28/02	SM-0587	SM-0590	11:00	--	4.8	140	35	84 d	0.14	7.0	1.4	1.8	7.4
08/28/02	SM-0590	SM-0587	11:00	--	4.0	130	36	102 d	0.12	7.0	1.4	1.8	7.5
10/30/02	SM-0630	--	11:15	--	2.0	75	30	65	1.0	2.0	1.6	0.33	3.0

Date	OWMID	QAQC	Time	Turb	Chloride	Alk	Hard	NH3-N	NO3-NO2-N	TKN	TN	TP	TSS
			(24hr)	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
1/29/2003	SM-0670	--	10:40	3.6	170	52	82	4.6	1.2	4.6	--	0.26	7.0
4/2/2003	SM-0711	--	11:15	2.0	120	20	57	0.80	0.79	1.3	--	0.13	3.3
5/21/2003	SM-0752	--	10:55	3.8	150	34	79	1.7	2.1	2.4 b	--	0.58	40
7/23/2003	SM-0793	--	11:05	7.2 b	110	22	61	0.21	1.9	1.2	--	0.35	14
9/24/2003	SM-0845	--	11:30	23 b	72	21	44	## bh	1.1 h	--	## h	0.46 h	28
11/20/2003	SM-0888	--	10:50	2.5	110	29	60	0.66	2.2	--	## bh	0.36	7.1 h

Date	OWMID	QAQC	Time	Turb	Chloride	Alk	Hard	NH3-N	NH3-N	NO3-NO2-N	TN	TP	TSS
			(24hr)	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
03/03/04	SM-0930	--	11:15	8.0*	--	--	--	2.4 j	--	1.0 j	4.1 j	0.50	--
04/28/04	SM-0971	--	11:55	7.5*	--	--	--	0.46	--	0.61 j	1.9 j	0.18 j	--
06/23/04	SM-1012	--	11:55	4.2*	--	--	--	0.06 j	--	2.4 j	3.5 j	0.48	--
08/25/04	SM-1054	--	12:05	3.8	130	34	77	0.12	--	2.9	3.7	0.34	7.5
10/27/04	SM-1095	--	11:20	2.0	98	33	72	--	0.48 hj	2.1	2.9	0.27	2.2

BLACKSTONE RIVER (Saris: 5131000)
Unique_ID: 688 Station: BS18A, Mile Point: 19.7
Description: downstream/east off Conrail railroad trestle, Millville. (center of northern channel - south off Route 122 approximately 0.5 miles southeast of the Central Street,/Route 122 intersection)

Date	OWMID	QAQC	Time	Depth	Alkalinity	Hardness	Chloride	SSolids	Turb	TKN	NH3-N	NO3-NO2-N	TPhos	Fecal
			24hr	(m)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(NTU)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(cfu/100ml)
3/15/2000	SM-0010		10:22	--	15	39	66	3.5	2.6	0.76	0.50	0.71	0.10	--
5/17/2000	SM-0057		09:53	--	17	36	59	5.7	2.5	0.87	0.20	1.1	0.19	--
7/19/2000	SM-0104		10:18	--	25	47	70 b	5.7	3.2	0.61	<0.02	1.2	0.23	--
9/20/2000	SM-0152		11:34	--	20	39	64	6.5	2.6	0.58	0.06	2.2	0.26	--
11/29/2000	SM-0191		10:26	--	18	37	65	3.7	3.0	0.77	0.34	1.3	0.29	--

Date	OWMID	QAQC	Time	Depth	TURB	CHLOR	ALK	HARD	NH3-N	NO3-NO2-N	TKN	TP	SSOLIDS
			(24hr)	(m)	NTU	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
3/14/2001	SM-0229	--	10:52	--	7.5m	280m	22m	55m	1.8m	0.71m	2.4m	0.22m	11m
4/25/2001	SM-0269	--	10:28	--	2.2m	85m	18m	47m	0.52m	0.85m	1.0m	0.15m	4.9m
6/27/2001	SM-0309	--	10:20	--	5.6m	73m	17m	43m	0.23bm	1.3m	0.61m	0.35m	7.8m
8/22/2001	SM-0349	--	09:55	--	2.9m	88m	26m	51m	<0.02m	2.2m	0.55m	0.19m	6.0m
11/7/2001	SM-0389	--	09:55	--	2.2m	83m	26m	54m	0.32m	2.9m	0.95m	0.31m	3.4m
12/17/2001	SM-0429	--	10:25	--	3.9m	130m	27hm	51m	0.92m	2.8m	1.5m	0.68m	5.3m

Date	OWMID	QAQC	Time	Turb	Turb	Chloride	Alk	Hard	NH3-N	NO3-NO2-N	TKN	TP	TSS
			(24hr)	NTU	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
03/06/02	SM-0468	--	10:15	3.0 m	--	110 m	18 m	46 m	0.45 m	1.0 m	0.82 m	0.21 m	3.7 m
04/24/02	SM-0508	--	10:00	--	2.6 m	100 m	19 m	58 m	0.30 m	2.0 m	0.82 m	0.18 m	3.2 m
06/26/02	SM-0548	--	10:05	--	3.2 m	91 m	20 m	51 m	<0.02 m	1.5 m	0.50 m	0.17 dm	5.8 m
08/28/02	SM-0588	--	09:25	--	2.6 m	100 m	33 m	66 m	<0.06 m	4.1 m	0.90 m	0.31 m	3.4 m
10/30/02	SM-0628	--	09:55	--	4.3 m	85 m	22 m	52 m	0.30 m	1.6 m	0.88 m	0.26 m	6.7 m

Date	OWMID	QAQC	Time	Turb	Chloride	Alk	Hard	NH3-N	NO3-NO2-N	TKN	TN	TP	TSS
			(24hr)	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
4/2/2003	SM-0709	--	09:50	1.7 m	84 m	14 m	41 m	0.52 m	0.67 m	0.88 m	--	0.096 m	4.3 m
5/21/2003	SM-0750	--	09:40	2.7 m	110 m	19 m	58 m	0.19 m	2.0 m	0.82 bm	--	0.23 m	4.3 m
7/23/2003	SM-0791	--	09:45	11 bm	78 m	18 m	46 m	<0.06 m	1.3 m	0.69 m	--	0.27 m	21 m
9/24/2003	SM-0843	--	09:32	15 bm	110 m	27 m	61 m	## bhm	2.6 hm	--	## hm	0.89 hm	65 m
11/20/2003	SM-0886	--	09:30	2.5 m	77 m	19 m	43 m	0.19 m	1.5 m	--	## bhm	0.17 m	4.3 hm

Date	OWMID	QAQC	Time	Turb	Chloride	Alk	Hard	NH3-N	NH3-N	NO3-NO2-N	TN	TP	TSS
			(24hr)	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
03/03/04	SM-0928	--	10:05	6.0* m	--	--	--	1.1 jm	--	1.00 jm	2.6 jm	0.19 m	--
04/28/04	SM-0969	--	10:15	5.1* m	--	--	--	0.17 m	--	0.58 jm	1.3 jm	0.095 jm	--
06/23/04	SM-1010	--	10:07	3.1* m	--	--	--	<0.01 jm	--	1.7 jm	2.3 jm	0.18 m	--
08/25/04	SM-1052	--	10:10	3.7 m	93 m	26 m	56 m	<0.01 m	--	1.5 m	1.9 m	0.22 m	6.2 m
10/27/04	SM-1093	--	09:55	2.7 m	73 m	23 m	52 m	--	0.26 hjm	1.6 m	2.3 m	0.27 m	2.9 m

WEST RIVER (Saris: 5131800)
Unique_ID: 515 Station: WR03, Mile Point: 3.3
Description: upstream/north, of East Hartford Street bridge, Uxbridge.

Date	OWMID	QAQC	Time	Depth	Alkalinity	Hardness	Chloride	SSolids	Turb	TKN	NH3-N	NO3-NO2-N	TPhos	Fecal
			24hr	(m)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(NTU)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(cfu/100ml)
3/15/2000	SM-0011		11:04	--	3	19	39	<1.0	0.65	0.22	<0.02	0.17	0.013	--
5/17/2000	SM-0058		10:44	--	7	19	41	2.6	1.3	0.39	<0.02	0.14	0.032	--
7/19/2000	SM-0105		11:01	--	13	23	45 b	<1.0	0.90	0.36	<0.02	0.20	0.039	--
9/20/2000	SM-0153		12:13	--	15	26	73	<1.0	1.0	0.39	<0.02	0.81	0.026	--
11/29/2000	SM-0192		11:06	--	7	22	56	1.2	1.2	0.34	0.02	0.32	0.031	--

Date	OWMID	QAQC	Time	Depth	TURB	CHLOR	ALK	HARD	NH3-N	NO3-NO2-N	TKN	TP	SSOLIDS
			(24hr)	(m)	NTU	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
3/14/2001	SM-0230	--	12:00	--	1.8	88	4	26	<0.02	0.44	0.35	0.022	1.4
4/25/2001	SM-0270	--	11:30	--	1.4	57	7	23	<0.02	0.16	0.33	0.034	3.0
6/27/2001	SM-0310	--	11:25	--	2.6	45	9	22	0.45b	0.17	0.62	0.074	2.1
8/22/2001	SM-0350	--	10:30	--	1.0	65	13	26	<0.02	0.24	0.34	0.035	1.0
11/7/2001	SM-0390	--	10:35	--	2.1	53	19	28	<0.02	0.53	0.22	0.025	1.4
12/17/2001	SM-0430	--	11:25	--	1.7	74	14h	29	<0.02	1.1	0.34	0.035	1.7

Date	OWMID	QAQC	Time	Turb	Turb	Chloride	Alk	Hard	NH3-N	NO3-NO2-N	TKN	TP	TSS
			(24hr)	NTU	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
03/06/02	SM-0469	--	11:00	1.0 m	--	66 m	4 m	26 m	<0.02 m	0.27 m	0.35 m	0.025 m	1.0 m
04/24/02	SM-0509	--	10:45	--	1.3	74	7	29	<0.02	0.23	0.36	0.021	1.8
06/26/02	SM-0549	--	10:55	--	2.1	57	11	24	<0.06	0.25	0.49	0.045 d	2.0
08/28/02	SM-0589	--	10:20	--	1.3	58	18	25	<0.02	<0.06	0.38	0.028	<1.0
10/30/02	SM-0629	--	10:40	--	1.2	75	8	33	<0.02	0.27	0.42	0.021	<1.0

Date	OWMID	QAQC	Time	Turb	Chloride	Alk	Hard	NH3-N	NO3-NO2-N	TKN	TN	TP	TSS
			(24hr)	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
4/2/2003	SM-0710	--	10:35	0.46	44	3	18	<0.02	0.22	0.31	--	0.015	<1.0
5/21/2003	SM-0751	--	10:20	2.1	68	9	28	0.08	0.26	0.40 b	--	0.036	3.0
7/23/2003	SM-0792	--	10:30	## bh	100	8	21	<0.02	0.10	0.54	--	0.055	1.5
9/24/2003	SM-0844	--	10:45	1.6 b	54	16	26	## bh	0.18 h	--	## h	0.026 h	1.9
11/20/2003	SM-0887	--	10:15	1.7	60	10	26	0.12	0.41	--	## bh	0.029	1.5 h

Date	OWMID	QAQC	Time	Turb	Chloride	Alk	Hard	NH3-N	NH3-N	NO3-NO2-N	TN	TP	TSS
			(24hr)	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
03/03/04	SM-0929	--	10:40	2.3*	--	--	--	0.08 j	--	0.37 j	0.68 j	0.031	--
04/28/04	SM-0970	--	11:05	1.1*	--	--	--	<0.01	--	0.13 j	0.45 j	0.022 j	--
06/23/04	SM-1011	--	11:05	4.0*	--	--	--	<0.03 j	--	0.28 j	0.62 j	0.030	--
08/25/04	SM-1053	--	11:10	1.4	59	15	27	<0.01	--	0.14	0.59	0.035	<1.0
10/27/04	SM-1094	--	10:38	1.7	55	13	30	--	<0.06 hj	0.31	0.63	0.021	1.3

QUINSIGAMOND RIVER (Saris: 5132425)
Unique_ID: 689 Station: QU02A, Mile Point: 3.7
Description: off upstream side of abandoned Bridge Street bridge west of Route 140, Grafton. (see 1997 ortho photo)

Date	OWMID	QAQC	Time	Depth	Alkalinity	Hardness	Chloride	SSolids	Turb	TKN	NH3-N	NO3-NO2-N	TPhos	Fecal
			24hr	(m)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(NTU)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(cfu/100ml)
3/15/2000	SM-0013		12:21	--	22	53	98	1.3	1.5	0.27	0.03	0.31	0.014	--
5/17/2000	SM-0060		12:12	--	22	49	97	1.7	1.1	0.50	0.04	0.24	0.021	--
7/19/2000	SM-0107		12:12	--	23	53	100 b	<1.0	0.65	0.43	<0.02	0.10	0.039	--
9/20/2000	SM-0149		09:20	--	25	48	80	1.8	0.94	0.42	0.02	<0.02	0.021	--
11/29/2000	SM-0194		12:30	--	24	49	84	<1.0	0.88	0.35	0.05	0.12	0.019	--

Date	OWMID	QAQC	Time	Depth	TURB	CHLOR	ALK	HARD	NH3-N	NO3-NO2-N	TKN	TP	SSOLIDS
			(24hr)	(m)	NTU	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
3/14/2001	SM-0232	--	13:38	--	1.9m	170m	24m	65m	0.14m	0.37m	0.81m	0.017m	1.2m
4/25/2001	SM-0272	--	14:38	--	1.8m	130m	22m	62m	<0.02m	0.26m	0.67m	0.025m	2.6m
6/27/2001	SM-0313	Blank	**	--	<0.10	<1	<2	<0.66	0.18b	<0.06	<0.10	<0.005	<1.0
8/22/2001	SM-0353	Blank	**	--	<0.10	<1	<2	<0.66	<0.02	<0.06	<0.10	<0.005	<1.0
11/7/2001	SM-0393	Blank	**	--	<0.10	<1	<2	<0.66	<0.02	<0.06	<0.10	<0.005	<1.0
12/17/2001	SM-0433	Blank	**	--	<0.10	<1.0	<2.0h	<0.66	<0.02	<0.06	<0.10	<0.005	<1.0

Date	OWMID	QAQC	Time	Turb	Turb	Chloride	Alk	Hard	NH3-N	NO3-NO2-N	TKN	TP	TSS
			(24hr)	NTU	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
03/06/02	SM-0471	--	12:35	1.7 m	--	160 m	22 m	61 m	<0.02 m	0.12 m	0.33 m	0.018 m	2.0 m
04/24/02	SM-0511	--	11:55	--	1.4	150	26	72	<0.06	<0.06	0.59	0.016	1.0
06/26/02	SM-0551	--	12:10	--	0.70 m	150 m	25 m	67 m	<0.06 m	0.06 m	0.46 m	0.020 dm	<1.0 m
08/28/02	SM-0591	--	11:55	--	0.70	180	38	102	<0.06	0.43	1.2	0.28	86
10/30/02	SM-0631	--	11:45	--	1.6	120	23	63	<0.02	<0.06	0.57	0.018	1.4

Date	OWMID	QAQC	Time	Turb	Chloride	Alk	Hard	NH3-N	NO3-NO2-N	TKN	TN	TP	TSS
			(24hr)	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
1/29/2003	SM-0671	--	11:20	1.4 m	180 m	31 m	81 m	0.19 m	0.40 m	0.54 m	--	0.015 m	2.7 m
4/2/2003	SM-0712	--	11:50	1.8 m	150 m	18 m	67 m	0.09 m	0.47 m	0.50 m	--	0.021 m	1.8 m
5/21/2003	SM-0753	--	11:25	1.8	180	24	74	<0.06	0.16	0.62 b	--	0.026	2.6
7/23/2003	SM-0794	--	11:35	## bh	110	19	61	<0.06	0.11	0.44	--	0.025	1.5
9/24/2003	SM-0846	--	12:05	1.2 b	110	22	60	## bh	<0.06 h	--	## h	0.021 h	1.5
11/20/2003	SM-0889	--	11:20	0.80	140	24	65	<0.02	0.22	--	## bh	0.022	1.1 h

Date	OWMID	QAQC	Time	Turb	Chloride	Alk	Hard	NH3-N	NH3-N	NO3-NO2-N	TN	TP	TSS
			(24hr)	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
03/03/04	SM-0931	--	11:45	1.6*	--	--	--	0.04 j	--	0.34 j	0.71 j	0.028	--
04/28/04	SM-0972	--	12:30	1.8*	--	--	--	<0.01	--	0.40 j	0.74 j	0.023 j	--
06/23/04	SM-1013	--	12:25	1.2*	--	--	--	<0.01 j	--	0.06 j	0.36 j	0.019	--
08/25/04	SM-1055	--	12:40	0.51	130	26	69	<0.01	--	0.08	0.28	0.015	<1.0
10/27/04	SM-1096	--	11:52	0.43	120	24	70	--	<0.06 hj	0.10	0.29	0.010	<1.0