Technical Memorandum - TM72-9
CHARLES RIVER WATERSHED
DWM YEAR 2002 WATER QUALITY MONITORING DATA - RIVERS

DWM Control Number: CN 136.0

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INTRODUCTION

The Charles River meanders approximately 80 miles from its headwaters at the outlet of Echo Lake in Hopkinton to its mouth at Boston Harbor. The 310 square mile Charles River Watershed encompasses all or part of 30 towns and 5 cities.

In 2002 the Massachusetts Department of Environmental Protection's (MassDEP) Division of Watershed Management (DWM) performed water quality monitoring in rivers in the Charles River Watershed (Table 1 and Figure 1). Fourteen total surveys [including five multiprobe-only pre-dawn events; five nutrient and multiprobe post-dawn sampling events (one with bacteria) and four bacteria only surveys] were conducted April through September throughout the watershed. Grab surface water samples were collected post-dawn and in-situ multiprobe measurements (dissolved oxygen, temperature, conductivity, and pH) were taken pre- and post-dawn. For more information regarding the 2002 Charles River Watershed survey, including sampling plan design and rationale, data quality objectives, and quality assurance, see the separate document *2002 QAPP for the Charles, Housatonic, Hudson, North Coastal and Ten Mile Watersheds* (MassDEP 2002a).

Table 1. MassDEP DWM 2002 Charles River Watershed Water Quality Station Locations and Parameters.

River Name	Station ID	Site Description	Parameters
Charles River	CR72.1	West of Route 85, downstream from outlet of Wildcat Pond, Milford, MA.	Multiprobe, TP, NH_3-N, TSS, fecal coliform and *E. coli* bacteria
Charles River	CR60.5	Upstream from Maple Street, Bellingham, MA.	Multiprobe, TP, NH_3-N, TSS
Charles River	CR03	Upstream from Walker Street at the USGS gage (upstream from CRPCD), Medway, MA.	Multiprobe, TP, NH_3-N, TSS, fecal coliform and *E. coli* bacteria
Charles River	CR51.6	Downstream from Dean Street (downstream from CRPCD), Millis, MA.	Multiprobe, TP, NH_3-N, TSS
Charles River	CR41.8	Upstream from Route 27, Medfield, MA (downstream from Medfield WWTF).	Multiprobe, TP, NH_3-N, TSS
Charles River	CR36.3	Off Route 16, upstream from confluence with Davis Brook, Natick, MA.	Multiprobe, TP, NH_3-N, TSS, fecal coliform and *E. coli* bacteria
Charles River	CR28.9	Approximately 300 feet downstream from Dover Dam and upstream from the USGS Dover gage, Dover, MA.	Multiprobe, TP, NH_3-N, TSS
Charles River	CR17.4	Upstream from the Mary Hunnewell Bridge, Wellesley, MA.	Multiprobe, TP, NH_3-N, TSS
Beaver Brook	BV01	Upstream from footpath off Taunton Street, approx. 725 feet upstream from confluence with the Charles River, Bellingham, MA.	Multiprobe, TP, NH_3-N, TSS, fecal coliform and *E. coli* bacteria
Mine Brook	MB01	Upstream from Pond Street, Franklin, MA.	Multiprobe
Chicken Brook	CK05	Upstream from Washington Street, Holliston, MA.	Multiprobe, TP, NH_3-N, TSS, fecal coliform and *E. coli* bacteria
Stop River	SR02B	Downstream from Lincoln Street, Norfolk, MA.	Multiprobe, TP, NH_3-N, TSS, fecal coliform and *E. coli* bacteria
Stop River	SR03	Downstream from Noon Hill Road, Medfield, MA.	Multiprobe, TP, NH_3-N, TSS
Bogastow Brook	BB08	Downstream from Orchard Street, Millis, MA.	Multiprobe, TP, NH_3-N, TSS

TP = total phosphorus; NH_3-N = ammonia-nitrogen; TSS = total suspended solids;
Multiprobe = dissolved oxygen, percent saturation, temperature, pH, specific conductivity and total dissolved solids

Table 1 Continued. MassDEP DWM 2002 Charles River Watershed Water Quality Station Locations and Parameters.

River Name	Station ID	Site Description	Parameters
Fuller Brook	FB01	Upstream from Dover Road, Wellesley, MA.	Multiprobe, fecal coliform and *E. coli* bacteria
Powissett Brook	PB01	Downstream from Wilsondale Road, Dover, MA.	Fecal coliform and *E. coli* bacteria
Rock Meadow Brook	RM01	Upstream from Summer Street, Westwood, MA.	Multiprobe
Rock Meadow Brook	RM01A	In Dedham Country Club approximately 2300 feet downstream from Westfield Street, (upstream of impoundment) Dedham, MA.	Multiprobe, TP, NH_3-N, TSS, fecal coliform and *E. coli* bacteria
Sawmill Brook	SB02	St. Josephs Cemetery (approximately 860 feet upstream from Baker Street, directly upstream of Boston Water and Sewer Commission outfall #12B124), West Roxbury, Boston, MA.	Fecal coliform and *E. coli* bacteria
Sawmill Brook	SB01	St. Josephs Cemetery, (approximately 140 feet upstream from Baker Street), West Roxbury, Boston, MA.	Multiprobe, TP, NH_3-N, TSS, fecal coliform and *E. coli* bacteria
South Meadow Brook	SM01	Downstream from Needham Street (downstream from storm water outfall on right bank), Newton, MA.	Multiprobe, TP, NH_3-N, TSS, fecal coliform and *E. coli* bacteria
Rosemary Brook	RB02	Upstream from Barton Street, Wellesley, MA.	Multiprobe, TP, NH_3-N, TSS, fecal coliform and *E. coli* bacteria
Stony Brook	ST00	Off Sibley Road, downstream from railroad tracks, Weston/Waltham, MA.	Multiprobe, TP, NH_3-N, TSS, fecal coliform and *E. coli* bacteria
Beaver Brook	BE03	At inlet to Mill Pond, Waltham/Belmont, MA.	Multiprobe, TP, NH_3-N, TSS, fecal coliform and *E. coli* bacteria
Beaver Brook	BE02	Upstream from Beaver Street, Waltham, MA.	Fecal coliform and *E. coli* bacteria
Cheese Cake Brook	CB03	Upstream from Watertown Street and upstream from storm water outfall, Newton, MA.	Fecal coliform and *E. coli* bacteria
Cheese Cake Brook	CB01	Off Albemarle Road, near confluence with Charles River, Newton, MA.	Multiprobe, TP, NH_3-N, TSS, fecal coliform and *E. coli* bacteria

TP = total phosphorus; NH_3-N = ammonia-nitrogen; TSS = total suspended solids;
Multiprobe = dissolved oxygen, percent saturation, temperature, pH, specific conductivity, and total dissolved solids
Note: On one survey date (03 June 2002) *Enterococcus* sp. was analyzed by the laboratory in addition to fecal coliform and *E. coli* bacteria. This was not a part of the original sampling plan nor was it requested by DWM.

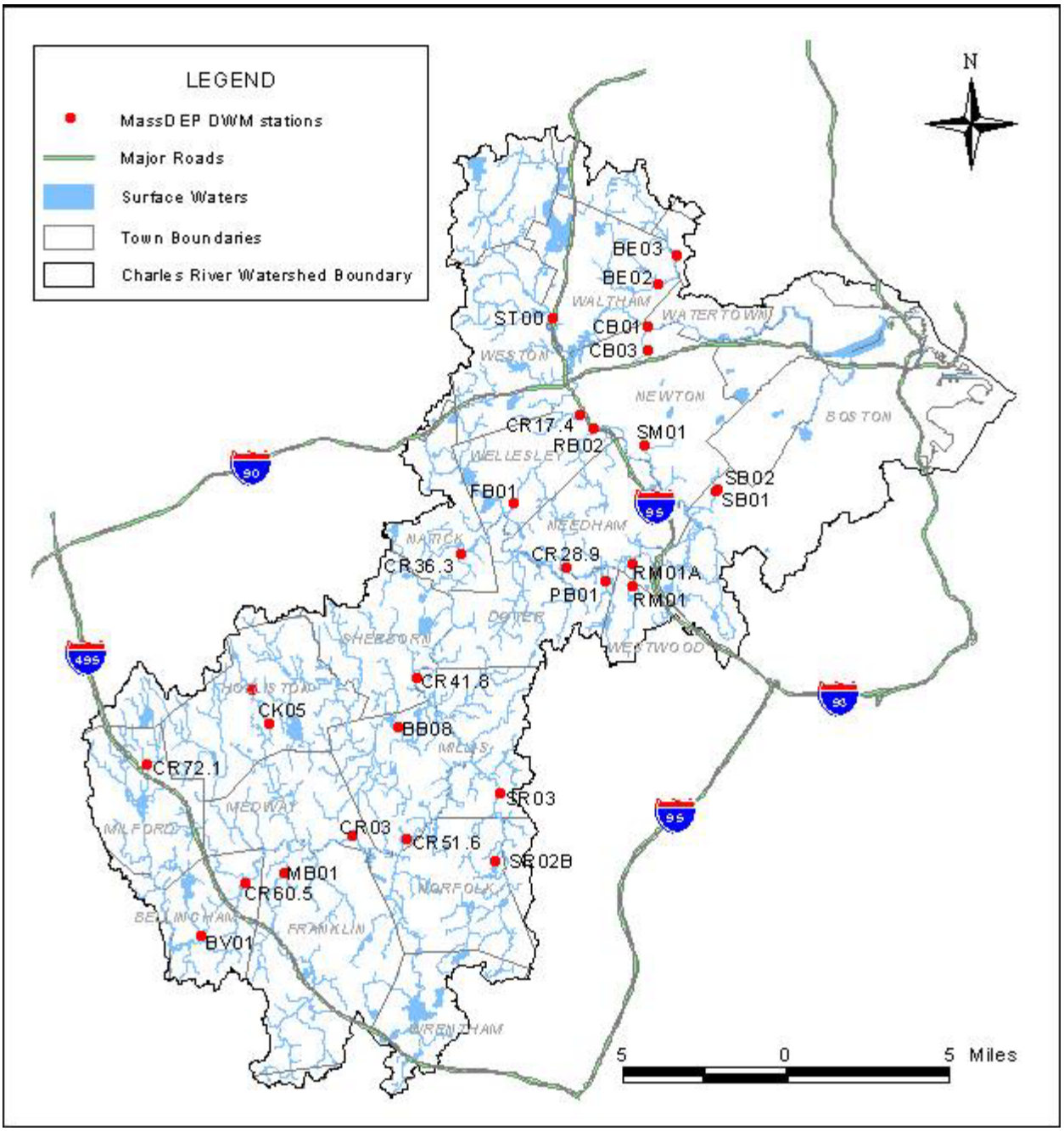

Figure 1. MassDEP DWM 2002 Charles River Watershed Water Quality Station Locations.

OBJECTIVES

The watershed assessment process in Massachusetts is carried out on a 5-year cycle. In Year One, DWM coordinates with watershed groups, gathers background information and begins to formulate sampling needs for surface waters in pre-determined watersheds. During Year Two of the cycle, sampling sites and parameters are finalized and monitoring is conducted. In Year Three, the finalized data are used for assessment reporting to comply with Section 305(b) of the Clean Water Act (CWA). Implementation of specific projects or programs to address water quality problems, and post-project evaluation are conducted in Year Four and Year Five, respectively.

The goal of the Charles River Watershed Year 2 survey was to obtain information that meets the following DWM programmatic objectives and watershed-specific sub-objectives.

Objective 1: Evaluate specific water bodies for support of designated uses (in accordance with Section 305(b) of the CWA), determine if Massachusetts water quality standards are being met, and evaluate the level of impairment of CWA Section 303(d)-listed waterbodies.

- Conduct chemical and biological evaluations of previously "unassessed" tributary and "not assessed" mainstem segments.
- Evaluate water quality and aquatic habitat around point source discharges, water withdrawals and known or suspected non-point sources of pollution.

Objective 2: Provide quality-assured data for use by DWM in developing Total Maximum Daily Loads (TMDLs) for State 303(d) listed waterbodies.

- Gather data for TMDL development for Chandler Pond, Hammond Pond, Jamaica Pond, Mirror Lake, Lake Pearl, Uncas Pond, and Weld Pond.

Objective 3: Screen fish to provide data to the Massachusetts Department of Public Health (MDPH) for public health risk assessment due to fish tissue contaminants.

- Assess screening-level fish toxicity at two lakes (Lake Pearl and Box Pond) in the Charles River Watershed for potential public health concerns.

Objective 4: Provide quality-assured *E. coli* data for the purpose of assessing primary and secondary contact recreational uses in rivers/streams.

Data collected to meet Objectives 1 and 4 are presented in this memorandum. Additionally, aquatic benthic macroinvertebrate and habitat data are presented in *Charles River Watershed 2002 Biological Assessment* and fish population data is presented in *2002 Charles River Watershed Fish Population Monitoring* (MassDEP December 2005 and MassDEP in preparation1). These data will also be used to meet Objective 1. See the separate documents *Baseline Lake Survey 2002 Technical Memo* and *2002 Fish Toxics Report* for presentation of data to meet Objectives 2 and 3, respectively (MassDEP in preparation2 and MassDEP July 2004).

METHODS

Field water quality monitoring procedures used during the 2002 Charles River Watershed survey are described in the standard operating procedures (SOPs), *Sampling Techniques for DWM Surface Water Quality Monitoring* and *Hydrolab Series 3 and 4 Multiprobes SOP* (MassDEP 2002b and 2002c). Additional information regarding field and laboratory methods, method and reporting detection limits, data quality objectives, and data validation can be found in the separate documents, *2002 QAPP for the Charles, Housatonic, Hudson, North Coastal and Ten Mile Watersheds* (MassDEP 2002a) and *Data Validation Report for Year 2002 Project Data* (MassDEP October 2005).

Monitoring was conducted by MassDEP DWM personnel and samples were labeled, preserved/acidified (when applicable) in the field and stored on ice. Station observations (clarity, odors, aquatic plant and periphyton growth, and other objectionable conditions) were recorded on field sheets at the time of sample collection. Bacteria samples were delivered from the field to the Wall Experiment Station (WES), the Department's analytical laboratory in Lawrence, MA. Nutrient and total suspended solid samples were returned to the DWM lab in Worcester, refrigerated, and delivered to WES at the end of the survey week.

STATION OBSERVATIONS

Station CR72.1 - Charles River west of Route 85, downstream from outlet of Wildcat Pond, Milford, MA.

Station CR72.1 was accessed off Route 85 in Milford approximately 300 meters along an all-terrain vehicle trail and sampled in the center of the stream on the downstream side of the footbridge. The immediate surrounding land use for this station was mostly forest with ample canopy cover at the station. The river channel is 5 to 10 feet wide in this reach. By early July, water level had dropped approximately 1 foot, from a starting depth of less than 2 feet in April, and rust-colored floc appeared on the stream bottom from the outlet of Wildcat Pond to the footbridge. Additionally the water level coming over the outlet structure for Wildcat Pond was severely diminished. On one occasion (08/07/02) the station was not sampled due to lack of flow. Low flow in the river (sometimes discontinuous puddling) continued to the end of the survey season.

The water column was relatively clear for all surveys except September when in-stream turbidity was described as highly cloudy. Occasionally surface scum and naturally occurring organic foam were noted, but only once in early June was a musty and rotting vegetable odor recorded. On all survey dates moderate coverage of moss on rocks and in-stream sedimentation from the dirt trail were observed.

Station CR60.5 - Charles River upstream from Maple Street, Bellingham, MA.

Station CR60.5 was sampled during pre-dawn hours from the road crossing by deploying a multiprobe over the bridge railing. During the day, the station was accessed approximately 150 feet upstream from Maple Street via a path adjacent to the river and sampled in the center of the stream. A dam is located in the river another 150 feet upstream from the wadeable sampling location. Both sites are considered to be indicative of water quality conditions in this reach. The river channel in this reach is approximately 40 feet wide. By early June the water level had dropped approximately 1 foot, but had little effect on the velocity in the river. Good riffle areas were present throughout the survey dates and large cobbles were the only substrate exposed.

The water column was very slightly turbid in-stream with no odor, scum or other objectionable conditions on all survey dates. There were no aquatic plants except for sparse coverage of moss on the larger substrates. Occasionally small amounts of naturally occurring organic foam were observed.

Station CR03 - Charles River upstream from Walker Street at the USGS gage (upstream from the Charles River Pollution Control District (CRPCD) wastewater discharge), Medway, MA.

Station CR03 was accessed from the right bank near the USGS gage and sampled in the center of the stream. The river channel is 60 to 70 feet wide in this reach. Stream velocity decreased from April to September from approximately 3 feet per second (fps) to less than 1 fps and the average depth decreased from 2 feet to less than 1 foot. However, ample riffle areas were present throughout the survey dates and any exposed substrates were along the margins of the river.

The water column was very slightly turbid in-stream on the survey dates. On one occasion (6 August 2002) an oily sheen, floating algae and white foam were observed. There were no odors or other objectionable conditions noted on the remainder of the survey dates. The aquatic plant density was sparse with only emergent plant growth towards the shoreline and on one occasion a submerged milfoil species was observed. In early June a sparse amount of filamentous algae was attached to the substrates and by early August there was dense coverage of green and brown algal mats attached to the river bottom.

Station CR51.6 - Downstream from Dean Street (downstream from the CRPCD wastewater discharge), Millis, MA.

Station CR51.6 was accessed from the right bank and sampled in the center of the stream. The river channel is 60 to 70 feet wide in this reach and the average depth is approximately 1.5 feet. Stream velocity was relatively constant throughout the survey dates at approximately 1 fps. Although the water

level decreased slightly throughout the survey season, the channel remained mostly full and large cobbles were the only substrate exposed.

The water column was slightly turbid in-stream with no odor or scum on all survey dates; however, a treated wastewater odor was observed in the air on three survey dates (in July and September). Naturally occurring organic foam was present in sparse amounts and the river bottom was covered with brown silt, most likely fine organic particulate matter. Sparse amounts of a submerged water milfoil were observed in early June. By early July there was moderate aquatic plant coverage of milfoil (*Myriophyllum* sp.), waterweed (*Elodea* sp.), and two species of pondweed (*Potamogeton epihydrus* and *Potamogeton* sp.). Dense coverage of green filamentous algae on substrates was observed in early June and remained through August when it began to decay.

Station CR41.8 - Charles River upstream from Route 27 (downstream from the Medfield WWTF discharge), Medfield, MA.

Station CR41.8 was accessed off the right bank and sampled towards the right of center stream. The river is wide (80 to 100 feet) and deep (> 4 feet) with open canopy at this station. The water level and velocity were relatively constant throughout the survey dates in this reach of the river.

On the shallow margin of the river, the water column was clear with no odor, scum or other objectionable conditions on all survey dates. Due to the river depth at this station, in-stream turbidity was difficult to determine. Sparse amounts of pickerelweed (*Pontederia* sp.), waterweed (*Elodea* sp.), duckweed (*Lemna* sp.), and green filamentous algae were observed sporadically during the May to August survey dates.

Station CR36.3 - Charles River off Route 16, upstream from confluence with Davis Brook, Natick, MA.

Station CR36.3 was accessed at a dirt parking area on Route 16 suitable for carry-in boat launching. Samples were taken towards the left bank from center stream. The river channel is 120 to 140 feet wide with open canopy in this reach. The velocity decreased slightly over the sampling season and water level dropped approximately 1 foot, but without exposing any substrates.

The water column was slightly turbid in-stream with no odor on all survey dates. Scum on the surface of the water ranged from pollen in the spring, to an unidentifiable sheen in early summer, to floating green bubbly algal mats in late summer. Aquatic plant coverage increased from April through October from sparse to dense and included waterweed (*Elodea* sp.), pondweed (*Potamogeton* sp.), and duckweed (*Lemna* sp.). In addition to the floating algal mats, dense coverage of filamentous green algae on substrates and on aquatic plants was observed in early August and remained through the September surveys.

Station CR28.9 - Charles River approximately 500 feet downstream of Willow Street/South Street, Dover/Needham (300 feet downstream from Dover Dam) and upstream from the USGS Dover gage, Dover, MA.

Station CR28.9 was accessed off Mill Street near the intersection with Willow Street in Dover. An island approximately 400 feet long is present in the river immediately downstream from the Dover dam. Sampling occurred at a point in the larger channel of the river on the western side of the island and downstream from where a portion of the Charles River splits off from the main channel and flows directly east under Willow Street meeting up again with the main channel. The river is approximately 50 feet wide in this western channel and the entire river widens to 80 to 100 feet downstream from the island. The water level decreased approximately 1 to 2 feet between April and September. In early August the river was not flowing over the dam, only around it. However, this flow alteration was not enough to expose substrates downstream from the dam.

The water column was slightly turbid in-stream with no odor on all survey dates. Organic foam was observed in early June, most likely formed naturally from the fast water as it passed over the dam. Sparse coverage of aquatic plants, including duckweed (*Lemna* sp.), waterweed (*Elodea* sp.),

pickerelweed (*Pontederia cordata*) and the non-native Eurasion milfoil, *Myriophyllum spicatum*, were present. By early August moderate amounts of green floating algal mats and green filamentous algae attached to the river substrates were observed and remained through the September survey dates.

Station CR17.4 - Charles River upstream from the Mary Hunnewell Bridge, Wellesley, MA.

Station CR17.4 was sampled via a basket drop from the Mary Hunnewell footbridge in Wellesley. The footbridge crosses the river just above a dam. Sampling took place on the upstream side of the dam where the Charles River ranges from 75 to 100 feet wide. The presence of the dam causes water velocity to be variable in this reach. Velocity is high as the water falls a few feet over the dam and onto bedrock. Sampling took place in the slower area just before the river flows over the dam. By early July, velocity in the sampling area had slowed to approximately 1 fps from 2 to 3 fps in the spring. By early August, water was barely flowing over the dam and a large area of bedrock was exposed on the downstream side.

The water column was slightly turbid in-stream on all survey dates and an odor of chlorine was noted in the air in early June and July. A slight dust or pollen blanket was observed on the river's surface in August. The presence of aquatic plants and algae was not noted until early August when the water level had dropped. At that time, moderate coverage of duckweed (*Lemna* sp.), waterweed (*Elodea* sp.) and water chestnut (*Trapa natans*) were observed along with sparse amounts of filamentous green algae attached to the plants. The plant and algae coverage persisted through September when green algae were also noted as floating and the water column was turbid.

Station BV01 - Beaver Brook upstream from footpath off Taunton Street, approximately 725 feet upstream from confluence with the Charles River, Bellingham, MA.

Station BV01 was accessed along a footpath off Taunton Street in Bellingham. Samples were collected center stream on the upstream side of the path. The land use in the Beaver Brook subwatershed is mostly forest (>50%) and residential (>25%). The majority of Beaver Brook runs through forested areas with ample canopy cover from trees. By early June the water level in the brook had dropped approximately 1 foot from an original depth of 1.5 to 2 feet. Beaver Brook is approximately 10 feet wide at this station, and the decrease in water level was accompanied by a decrease in velocity, but there was enough gradient that riffles were still present through September.

The water column was clear with no odor, scum or other objectionable conditions on all survey dates, except for one date after a rainfall when the water clarity was recorded as slightly turbid. No aquatic plant or periphyton growth in-stream was observed on the survey dates.

Station MB01 - Mine Brook upstream from Pond Street, Franklin, MA.

Mine Brook was sampled on 10 occasions for multiprobe parameters only. The first survey on 29 April 2002 mistakenly took place at Beech Street in Franklin, which is one road crossing upstream from Pond Street. This data is presented in Table 3 as Station MB01B. The land use in the Mine Brook subwatershed is mostly forest and residential, but the brook runs through a wetland habitat for approximately 2.5 miles upstream from Station MB01. Mine Brook is 20 to 30 feet wide in this reach. By early June the water level in the brook had dropped approximately 1 foot from an original depth of 1.5 to 2 feet, however, there were very few exposed substrates and the station remained a large riffle area.

The water column was slightly turbid in-stream with no odor, scum or other objectionable conditions on the survey dates. Occasionally naturally occurring organic foam was present. By early June moderate coverage of aquatic plants and periphyton were observed. The plant growth was mainly emergent grasses and arrowhead (*Sagittaria* sp.) in the stream channel and cattails (*Typha* sp.) on the shoreline. By early July, sparse coverage (approximately 25%) of green algal mats and green filamentous algae were present on the substrates and on plants and remained through September.

Station CK05 - Chicken Brook upstream from Washington Street, Holliston, MA.

Station CK05 was accessed via the yard of an abutting home on the right bank at Washington Street. The first two survey dates (29 and 30 April 2002) were sampled at Prentice Street in Holliston. These data are presented in Tables 3 and 4 as station CK06. The brook is approximately 5 feet wide at this station and in early July the water level began to drop by almost 1 foot, exposing substrates on the banks. As a result of the large drop in water level in such a small channel, the velocity decreased from medium velocity with fast riffles in June to low velocity in July and almost no velocity in August.

The water column was slightly turbid in-stream, with no odor or scum from June to September. No other objectionable conditions were present except for silt deposits on the stream bottom. A few emergent aquatic plants were present, along with some moss on rocks.

Station SR02B - Stop River downstream from Lincoln Street, Norfolk, MA.

Station SR02B was accessed through the tree line on the left bank of the downstream side of Lincoln Street and sampled in the center of the stream. The subwatershed for this station is approximately 10 square miles and the land use is mostly forest and residential. There are many small tributaries, with a few large impoundments, upstream from this station in addition to the wastewater discharge from the Caritas Southwood Hospital. The river channel is approximately 15 feet wide in this reach and the water level and velocity were relatively constant throughout the survey dates.

The water column was slightly turbid in-stream until the July surveys when moderate turbidity with suspended sediments was observed. For the August surveys the water was highly cloudy with suspended solids, which inhibited the ability to see the river bottom. In-stream clarity increased to slightly turbid by the September survey dates. Odor was not detected at this station until September when an odor described as “musty” and “rotting vegetation” was recorded. The odor seems to correspond with a moderate amount of decaying filamentous algae on substrates and attached to moss. There were no scums, objectionable conditions or macrophytes (other than aquatic moss and a few emergents on the shoreline) observed on the survey dates. Organic foam that forms naturally at the outlet of Highland Lake was noted occasionally.

Station SR03 - Stop River downstream from Noon Hill Road, Medfield, MA.

Station SR03 was accessed from the left bank on the downstream side of Noon Hill Road and sampled in the center of the stream. This station is approximately 2 ¾ miles downstream from station SR02B, flows through a low gradient wetland and receives the wastewater discharge from the MCI-Norfolk facility. The river is approximately 15 feet wide upstream from the road, but widens to 20 to 30 feet at the station on the downstream side. The water velocity was relatively constant throughout the survey dates. Although the water level dropped slightly during July and August, the banks remained full and there were no exposed substrates.

The water column was slightly turbid in-stream with no odor, scum or other objectionable conditions on the survey dates. Naturally occurring organic foam was noted occasionally. A sparse amount of duckweed (*Lemna* sp.) was present during the July and September surveys along with some moss and emergent burreed (*Sparganium* sp.). Additionally a moderate amount of filamentous algae attached to the river bottom was observed on the August and September survey dates

Station BB08 - Bogastow Brook downstream from Orchard Street, Millis, MA.

Station BB08 is located at the main outlet for Bogastow Pond on Orchard Street, north of a second outlet on Orchard Street. A third outlet that does not flow year round crosses Orchard Street north of DWM’s sampling station. Immediately downstream from Orchard Street, at the main outlet, a small portion of the brook braids off around an island on the right bank and then re-enters the brook from the right bank approximately 150 feet downstream from the road. Approximately 100 feet downstream from the road, the third outlet comes in on the left bank. Sampling at this station took place over the railing at Orchard Street (for pre-dawn multiprobe surveys) and up to 100 feet downstream from Orchard Street (for post-

dawn water quality grab sampling and multiprobe deployment). Both locations are considered to be indicative of water quality conditions in this reach. The water level and velocity were relatively constant throughout the sampling season with only a slight decrease in water level recorded for June and July. However, the channel remained relatively full during this time.

The water column was clear with no odor, scum or other objectionable conditions on the survey dates. On one occasion naturally occurring organic foam was observed. Sand deposits and oil from the third outlet that seems to act also as a storm water conduit were noted on the July 9th survey. There was approximately 25% coverage of moss on the bottom of the stream and in early July sparse amounts (1% coverage) of emergent grasses and arrowhead (*Sagittaria* sp.) were noted. Floc was observed on the river bottom in June and July in sparse and moderate amounts, respectively. In early September a sparse amount of filamentous algae was also recorded.

Station FB01 - Fuller Brook upstream from Dover Road, Wellesley, MA.

Station FB01 was sampled center stream upstream from Dover Road. The subwatershed for Fuller Brook is urbanized and the land use surrounding the brook is residential with some forested areas in the headwaters. The riverbed is approximately 10 to 12 feet wide and channelized with stone walls along both sides. The water level began to drop in July (from a starting depth of approximately 2 feet) and continued to drop in August when the velocity was observed to be almost stagnant, however the channel remained relatively full with no exposed substrates.

The water column was clear to slightly turbid, with no water odor on the survey dates. However, a sulfide odor was released from the stream bottom when the muck and sediments were disturbed. No scum or other objectionable conditions (other than the sand and muck bottom deposits) were observed. Sparse coverage of aquatic plants including water starwort (*Callitriche* sp.) and duckweed (*Lemna* sp.) were observed during all of the survey dates.

Station PB01 - Powissett Brook downstream from Wilsondale Road, Dover, MA.

Station PB01 was scheduled to be sampled on five occasions for bacteria only. On what would have been the first sampling date, the survey crew mistakenly sampled an unnamed tributary parallel to Powissett Brook. These data are presented in Table 4 as Station W1161. Station PB01 is heavily forested with an unnamed impoundment of the brook on the upstream side of the road. The channel is approximately 6 to 8 feet wide. In June the water level filled the channel to the banks and there was good velocity for riffles. By early July the depth had dropped approximately 1 foot, from an initial depth of only 1.5 to 2 feet, causing some substrates to be exposed (including puddling) and the velocity to decrease to low (<1 fps). This condition continued through the September sampling date.

The water column was clear with no odor, scum, or other objectionable conditions observed except for an oil sheen (probably naturally occurring and bacterial in origin) in some standing water during the September survey. There was no aquatic plant coverage.

Station RM01 - Rock Meadow Brook upstream from Summer Street, Westwood, MA.

Station RM01 was not a part of DWM's original sampling plan. A multiprobe was deployed for 24 hours (5 June to 6 June 2002) at this station. The river habitat is very different at Summer Street as compared to habitat at the water quality station in Dedham Country Club. The surrounding land use upstream from Summer Street is forest and residential with 90 to 100% canopy cover at the station. There is sufficient gradient for riffles and good cobble/gravel substrates. The multiprobe deployment at station RM01 was added in order to obtain spatial and temporal distribution of dissolved oxygen data on Rock Meadow Brook.

The water column was clear with no odor, scum, or other objectionable conditions on the survey dates. The water depth was approximately 1 foot with ample riffle areas. There was sparse coverage of submerged and emergent aquatic plants including moss in-stream and burreed (*Sparganium* sp.) along

the margins. Additionally, there was sparse coverage of green filamentous algae attached to the substrates.

Station RM01A - Rock Meadow Brook in Dedham Country Club approximately 2300 feet downstream from Westfield Street, (upstream of impoundment) Dedham, MA.

Station RM01A was accessed via the golf cart paths through Dedham Country Club (with permission from the club). The brook runs through a forested and residential area upstream from the golf club. The surrounding land use becomes a wetland habitat (in addition to the golf course) at this station, which is located just upstream of an impoundment at Hole Number 8. The river channel is approximately 20 feet wide in this reach. The water velocity was low (approximately 1fps) from April to July, and by the August survey dates, the brook was stagnant.

The water column was slightly turbid during the April surveys and there were waterfowl droppings on the shore. By early June the water column in stream was highly cloudy with a pollen scum on the surface. A sulfide odor was released from the mucky bottom when it was disturbed. The aquatic plant coverage was dense (approximately 75%) and included waterweed (*Elodea* sp.), coontail (*Ceratophyllum* sp.), smartweed (*Polygonum* sp.), pickerelweed (*Pontederia cordata*), yellow water lily (*Nuphar variegatum*), purple loosestrife, and yellow and purple irises. By early July the water depth had dropped approximately 6 inches from an initial depth of 3 to 4 feet. Moderate amounts of green filamentous algae were attached to the submerged macrophytes and duckweed (*Lemna* sp.) was also present. A white sheen on the surface of the brook was noted during the July 11th survey. On the August survey dates the water depth had dropped approximately 1 foot from the April depth and dense coverage of aquatic plants, periphyton and floating green algal mats was observed. In September the water depth had dropped approximately 2 feet from the April starting depth. The dense coverage of aquatic plant growth remained through the September survey dates and a scum of organic matter and oil was observed on the water's surface. Throughout the summer waterfowl were observed in addition to fish, turtles, frogs and occasionally muskrats or woodchucks.

Station SB02 - Sawmill Brook in St. Josephs Cemetery (approx. 860 feet upstream from Baker Street, directly upstream of Boston Water and Sewer Commission outfall #12B124), West Roxbury, Boston, MA.

Station SB02 was sampled upstream from the Boston Water and Sewer Commission's outfall #12B124 on five occasions for bacteria only for the purpose of bacteria source identification. The intention was to compare the results to station SB01 farther downstream. The data from stations SB02 and SB01 were censored for the August bacteria sampling round because it is believed that the sample bottles for those stations may have been inadvertently switched in the field.

The water column was clear for the April, June and July surveys, but was turbid during the August and September surveys. No odor, scum, or other objectionable conditions were observed at this station, except for the occasional piece of trash. A sparse amount of duckweed (*Lemna* sp.) was present in July, August and September.

Station SB01 - Sawmill Brook approximately 140 feet upstream from Baker Street, West Roxbury, Boston, MA.

Station SB01 was sampled upstream from the first driveway into St. Josephs Cemetery, approximately 140 feet upstream from Baker Street. The highly urbanized subwatershed for this station is very small (less than 2 square miles). The land use is primarily residential (approximately 66%) with 18% forest and 12% open land (including a few cemeteries). The velocity at this station on all survey dates was low (0 to 1 fps), and the water level began to drop in July. Although the brook neared no flow, the channel remained relatively full with substrates only exposed on the banks.

The water column was slightly turbid on the survey dates. No odor, scum, or other objectionable conditions were observed, but occasionally some trash was found in the stream. There was no aquatic plant coverage, but in early June sparse coverage of green filamentous and thin film algae attached to the substrates was observed and remained through September. In August moderate coverage of grey

periphyton was observed on the substrates. Microscopic identification of this periphyton revealed the sample was composed primarily of the stalked ciliate *Vorticella* sp., and contained some nematodes, sewage fungus as well as free swimming ciliates (Beskenis 2002).

Station SM01 - South Meadow Brook downstream from Needham Street, Newton, MA.

Station SM01 was accessed through the back parking lot of a commercial business at 29 Tower Road in Newton. The highly urbanized subwatershed for this station is small (less than 3 square miles) and is mostly residential, with some commercial and industrial areas, and some forest in the upper reaches of the subwatershed boundary. A storm water outfall enters the brook across the channel on the right bank. Sampling took place downstream of this outfall with the exception of the first survey (29 April 2002), which mistakenly took place upstream of the storm drain. Data from that survey is presented in Tables 3 and 4 as Station SM01B. The channel is approximately 10 feet wide at this station with a depth of 1 to 2 feet in April. By July the water level had dropped approximately 1 foot and the velocity slowed, but some small riffles remained through September. Substrates were exposed from July through September in the shallower areas of the brook (e.g. a sand and gravel bar in the middle of the brook).

The water column was clear to slightly turbid in-stream on the survey dates. A pool area just downstream from the storm water outfall was observed to be highly cloudy in August and September. The turbidity in-stream seems to originate from the outfall, as the brook is relatively clear upstream from the drain. No odor, scum or other objectionable conditions were observed throughout the survey dates except for some trash on the banks and sand deposition in stream. Sparse coverage (approximately 25%) of thin film periphyton on the stream bottom was observed early June through the September survey dates. The water velocity at the beginning of the survey season was approximately 1 fps.

Station RB02 - Rosemary Brook upstream from Barton Street, Wellesley, MA.

Station RB02 was accessed via a small path through the woods off the Charles River Path of the Wellesley Trail. The Rosemary Book subwatershed is less than 4 square miles and more than half of the land use is residential. The subwatershed can further be described as highly urbanized. The stream channel is approximately 20 feet wide in this reach with closed canopy cover. By early June the water level had dropped approximately 1 foot and the velocity slowed. Reduced flows continued through July and by the August and September surveys, the brook was almost stagnant.

The water column was slightly turbid in-stream with no odor during the April and June surveys, but in July there was an odor described as “rotting vegetables” and “swampy”. Trash and sediments in-stream were noted throughout the survey dates. The stream bottom was described as mucky and silt covered with no aquatic plants.

Station ST00 - Stony Brook off Sibley Road, downstream from railroad tracks, Weston/Waltham, MA.

Station ST00 was accessed through a parking lot behind some commercial businesses on Sibley Road in Weston. This station is just upstream from Stony Reservoir, a drinking water supply for the City of Cambridge. The river channel is approximately 20 feet wide in this reach. Water level and velocity were relatively constant throughout the summer. There was a slight drop in depth in August and September, but the channel remained full with no exposed substrates and fast riffles.

The water column was clear with no odor on the survey dates. On two survey dates a musty odor was observed, not from the water, but instead most likely emanating from the concrete bridge abutment upstream from the station. There were no scums or other objectionable conditions on the survey dates and no aquatic plants, except for a sparse amount of moss. By early July a moderate amount of brown thin film periphyton covered most of the rocks on the bottom of the brook causing them to be slippery.

Station BE03 - Beaver Brook at inlet to Mill Pond, Waltham/Belmont, MA.

Station BE03 was accessed through the backyard of a home on Regent Road in Belmont. A path along the pond leads to a wooden footbridge over the inlet. Immediately upstream from this station, Beaver

Brook runs approximately 500 meters through a residential area and has wetland habitat along its banks. The brook has low gradient in this sampling reach and in the spring is slightly flooded with a velocity of approximately 1 fps. In June the water level began to drop, exposing the sandy banks. The velocity slowed until the brook was almost stagnant in August and continued to lose depth into September.

The water column was slightly turbid in-stream with no odor on the survey dates. By July moderate amounts of green filamentous algae attached to rocks on the bottom of the brook were observed and remained through September. Emergent aquatic plant life began to appear in June. In July, production immediately downstream from the footbridge, in the pond, resulted in dense coverage of emergent, floating and submerged macrophytes including waterweed (*Elodea* sp.), duckweed (*Lemna* sp.), and water chestnut (*Trapa natans*). Approximately 50% of Mill Pond was covered with water chestnut. In August a natural oily sheen was observed on the surface of the water at the sampling station.

Station BE02 - Beaver Brook upstream from Beaver Street, Waltham, MA.

Station BE02 was sampled on five occasions for bacteria only. The station is located approximately 1.4 miles downstream from station BE03 and just downstream from the confluence with Clematis Brook. The stream channel is approximately 15 feet wide. The water level and velocity in the brook began dropping in July, exposing sandy substrates on the banks. These conditions remained through September.

The water column was slightly turbid in-stream on the survey dates with a petroleum odor observed in July and a musty odor in August. There were no scums observed, but there was some trash on the banks. There were no aquatic plants, but dense coverage of green filamentous algae attached to substrates was observed in July, August and September.

Station CB03 - Cheesecake Brook upstream from Watertown Street, Newton, MA.

Station CB03 was sampled on four occasions (June through September) for bacteria only. During the April survey, the station was mistakenly sampled downstream from Watertown Street and is presented in Table 4 as station CB03A. A storm water outfall on the right bank upstream from Watertown Street historically had problems with sewage contamination. Station CB03 was to be sampled upstream from the outfall so that results could be compared to station CB01 farther downstream. The stream channel is approximately 15 feet wide at this station. The water level and velocity were relatively constant throughout the summer, with the depth dropping approximately one half of a foot in August.

The water column was clear with no odor or scum on the survey dates, but occasionally the station was littered with a few pieces of trash. There is some canopy cover from a narrow tree line on both banks at this station, but the brook is channelized with stone walls throughout its entire length and has no canopy cover for the majority of its length. Sparse amounts of moss and duckweed (*Lemna* sp.) were observed in the brook along with some filamentous green algae later in the summer.

Station CB01 - Cheesecake Brook off Albemarle Road, near confluence with Charles River, Newton, MA.

Station CB01 is located approximately 50 meters upstream from the confluence with the Charles River. Cheesecake Brook is completely channelized and characterized as a slow run. The stream channel is approximately 15 feet wide at this station. Velocity (<1 fps) remained constant throughout the survey dates and the water level only dropped approximately one half of a foot in August.

The water column was clear with no odor or scum on the survey dates. A minimal amount of trash was observed occasionally in-stream and on one occasion (June 4th) a considerable amount of fecal matter from waterfowl was observed on the river bottom. By early June a sparse amount (<1% coverage) of moss and water starwort (*Callitriche* sp.) were present. In July waterweed (*Elodea* sp.) was also observed. By early August, there was approximately 25% coverage of green and brown filamentous algae attached on plants and on substrates. On the August 6th survey, plant samples were collected from the Charles River proper at the confluence with Cheesecake Brook and identified as the non-native aquatic plant species Eurasion milfoil (*Myriophyllum spicatum*).

SURVEY CONDITIONS

Stream discharge and precipitation data are used to determine hydrologic conditions and, consequently, if water quality surveys should be described as dry or wet weather events. During dry weather, trace amounts of precipitation may fall, but there is no measurable change in stream flow. The USGS operates two stream gaging stations on the Charles River, applicable to this water quality data set, at Walker Street in Medway and off Mill Street in Dover. Daily mean stream discharge for the survey dates at both gages is presented in Table 2 along with 7Q10 (the lowest 7-day average flow that occurs once every 10 years) and August median flow values, calculated using USGS Streamstats (USGS 2003 and 2005). Daily mean discharge recorded at each gage is presented in graphic format for 20 April 2002 through 15 September 2002 in Figures 2 and 3 (dates were chosen arbitrarily in order to bracket the survey season). Arrows on the graphs indicate the five sampling rounds (April, June, July, August and September). Stream discharge at two additional gages on the Charles River in Wellesley and in Waltham responded to precipitation comparably to the Dover gage. Additionally, discharge at the Wellesley and Waltham gages are affected by diversion to Mother Brook and therefore, are not adequate for precipitation vs. stream discharge comparison for the purpose of this report. Precipitation data are available from the National Weather Service from airports in Worcester, Norwood and Boston (NOAA 2005). Weather and hydrologic conditions at water quality stations in the Charles River Watershed were analyzed based on a station's proximity to the Worcester, Norwood or Boston airports and to either the Medway or Dover USGS gages. Total daily precipitation for the three airports is presented in Table 2.

April 29/30, 2002 - Rain on April 28th and 29th (totaling 0.83 inches in Worcester, 0.39 inches in Norwood and 0.44 inches in Boston) corresponds with an increase in stream discharge at the USGS gages on the Charles River. Additionally, rain on April 25th doubled the flow (57 to 107 cfs) at the USGS gage in Medway by the next day and increased the discharge at the Dover gage (179 to 223 cfs). Stream discharge continued to increase through the April surveys and did not begin to decrease until May 7th. The increase in flow due to precipitation is indicative of a wet weather survey, however the April surveys are not characterized as first-flush sampling. Daily means for stream discharge during the April surveys, as evidenced by the two gages, were characteristic of spring flow.

June 3/4/5, 2002 - Prior to these surveys, the last significant amount of rain in Worcester, Norwood, and Boston fell on May 31st. Rain totals ranged from 0.68 inches in Worcester to 0.23 inches in Boston. As a result of the rain, stream discharge at the Medway gage increased slightly on June 1st, but was not significant enough to increase flow at the Dover gage. Stream discharge then decreased at both gages from June 1st through the June surveys. Significant rain fell on June 5th, but after the early morning survey was completed. Although trace to small amounts of rain were recorded on June 2nd and 4th, there were no measurable increases in stream flow. Therefore, the June sampling events are characterized as dry weather surveys. Daily mean discharge at the Medway gage during the June surveys had decreased to half of the April flow, but was 17 to 24 times higher than the 7Q10 at the gage. Discharge at the Dover gage was equivalent to that exhibited during the April surveys.

A 24-hour multiprobe deployment occurred at one station (RM01) from 5 June to 6 June 2002. The weather at deployment was characterized as drizzly with air temperature in the low to mid 60's. Between one-quarter and one-half of an inch of rain fell during the entire deployment period, therefore this survey is considered a wet weather event.

July 8/9/10/11, 2002 - Only trace amounts of rain, on occasion, were recorded in Worcester and in Boston for the seven days preceding the July 8th survey. A heavy rain event with thunderstorms came through the region after the July 9th survey. Flow at the Medway gage responded immediately, but daily mean discharge at the Dover gage did not show an increase until July 10th. The July 8th and 9th surveys are characterized as dry weather events and the July 10th and 11th surveys are indicative of wet weather surveys, but are not considered first-flush sampling. Daily mean stream discharges at the Medway and Dover gages decreased more than 75% between the June and July surveys and in July were 3.5 to 6 times higher than the 7Q10 at those gages. However, the daily mean discharges at both gages during the July 8th and 9th surveys were lower than the August Median Flow, the summer-time minimum streamflow for maintenance of aquatic habitat.

August 5/6/7, 2002 - Prior to these surveys, the last measurable amount of rain in Worcester, Norwood, and Boston fell on August 2nd. Daily mean stream discharge slightly increased at both gages in response to the rain. However, flow decreased by the August 5th survey to the same levels as prior to the rainstorm and continued to decrease through August 7th. Therefore the August surveys are considered dry weather sampling events. On August 5th, a small storm dropped 0.53 inches of rain at the Worcester airport, but was localized to Worcester and had no effect on the Charles River Watershed. This was confirmed by the lack of precipitation recorded at the USGS gages in Medway and in Sterling, MA (Socolow 2005). Daily mean discharges at the Medway gage during the August surveys were comparable to the July surveys. At the Dover gage, the daily mean discharge continued to decrease as compared to the July surveys (approximately 30% decline and only 2.5 to 3 times the 7Q10 at the Dover gage). Additionally, the daily mean discharges at both gages during the August surveys were lower than the August Median Flow.

September 9/10/11, 2002 - Prior to these surveys, the last measurable amount of rain in Worcester, Norwood, and Boston fell on September 4th. Daily mean discharge decreased at the Medway and Dover USGS gages starting on September 5th and continued to decrease through the September surveys and therefore are characterized as dry weather sampling events. Daily mean discharges at the two gages during the September surveys were only to 2 to 3 times higher than the 7Q10 for those gages and were almost half of the August Median flow for the respective gage.

Figure 2. Daily Mean Discharge (cfs) at USGS Gage 01103280 Medway, MA

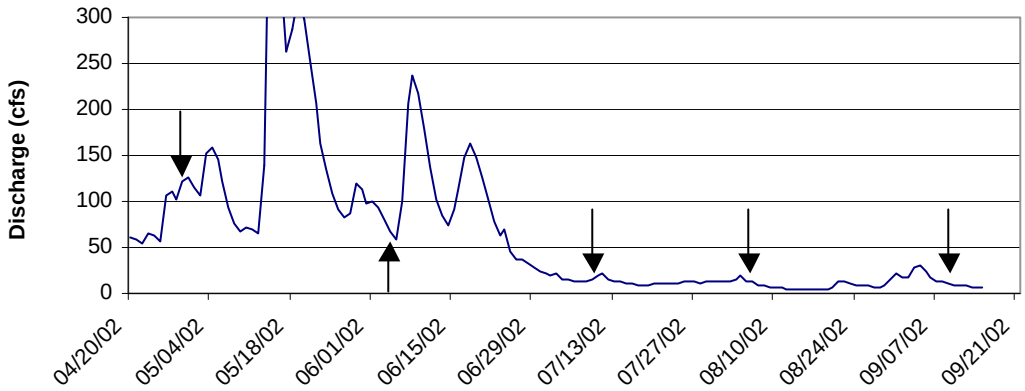

Figure 3. Daily Mean Discharge (cfs) at USGS Gage 01103500 Dover, MA

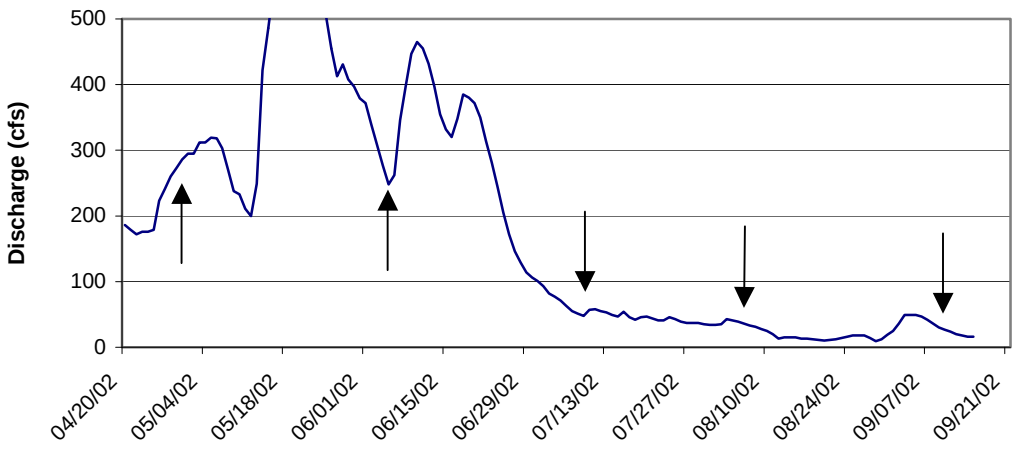

Table 2. Total Daily Precipitation and Daily Mean Discharge for the Charles River (USGS Gage 01103280 in Medway and USGS Gage 01103500 in Dover) for Survey and 5 Antecedent Dates in the Charles River Watershed. Survey Dates are in bold text.

Date	Precipitation (inches) from ORH[1]	Precipitation (inches) from NOR[2]	Precipitation (inches) from BOS[3]	Daily Mean Discharge (cfs) Medway	Daily Mean Discharge (cfs) Dover
04-24-02	0.00	Trace	0.00	64	176
04-25-02	0.43	0.68	0.74	57	179
04-26-02	0.00	0.07	0.03	107	223
04-27-02	0.00	0.00	0.00	110	241
04-28-02	0.62	0.23	0.36	102	260
04-29-02	**0.21**	**0.16**	**0.08**	**121**	**273**
04-30-02	**0.10**	**0.05**	**Trace**	**126**	**286**
05-29-02	0.10	0.16	0.25	119	408
05-30-02	0.00	0.00	0.00	112	397
05-31-02	0.68	0.44	0.23	97	379
06-01-02	0.00	0.00	0.00	101	372
06-02-02	0.10	0.06	0.05	94	339
06-03-02	**0.00**	**0.00**	**0.00**	**81**	**308**
06-04-02	**0.01**	**Trace**	**Trace**	**67**	**277**
06-05-02	**0.79**	**0.24**	**0.23**	**58**	**248**
07-03-02	0.00	0.00	0.00	22	82
07-04-02	Trace	0.00	0.00	16	77
07-05-02	0.00	0.00	0.00	15	71
07-06-02	Trace	Trace	Trace	13	63
07-07-02	0.00	0.00	Trace	12	55
07-08-02	**0.00**	**0.00**	**0.00**	**12**	**51**
07-09-02	**0.67**	**0.64**	**0.61**	**15**	**48**
07-10-02	**0.00**	**0.00**	**0.01**	**20**	**57**
07-11-02	**0.00**	**0.00**	**0.00**	**21**	**58**
07-31-02	0.02	0.00	0.00	14	34
08-01-02	0.01	0.00	0.00	13	34
08-02-02	0.38	0.41	0.11	13	35
08-03-02	0.00	0.00	0.00	16	43
08-04-02	0.00	0.00	0.00	20	41
08-05-02	**0.53**	**0.00**	**0.00**	**14**	**39**
08-06-02	**0.00**	**0.00**	**0.00**	**12**	**36**
08-07-02	**0.00**	**0.00**	**0.00**	**9.7**	**33**
09-04-02	0.02	0.08	0.35	31	49
09-05-02	0.00	0.01	0.00	24	49
09-06-02	0.00	0.00	0.00	17	47
09-07-02	0.00	0.00	0.00	13	42
09-08-02	0.00	0.00	0.00	12	36
09-09-02	**0.00**	**0.00**	**0.00**	**11**	**30**
09-10-02	**0.00**	**0.00**	**0.00**	**9.3**	**27**
09-11-02	**Trace**	**0.00**	**Trace**	**8.1**	**24**
				7Q10 = 3.42	7Q10 = 12.72
				AMF[4] = 16.30	AMF[4] = 53.80

[1]ORH = Worcester Airport
[2]NOR = Norwood Airport
[3]BOS = Boston Airport
[4]AMF = August Median Flow

RESULTS AND QUALITY ASSURANCE/QUALITY CONTROL

Table 3 presents *in-situ* multiprobe readings and Table 4 contains bacteria (fecal coliform, *E. coli*, and *Enterococcus* sp.), nutrient (ammonia-nitrogen and total phosphorus) and total suspended solids data. Ambient field blank and duplicate sample data are presented in Tables 5 and 6, respectively. Additionally, results from field duplicates are presented in Table 4 as different sample ids (OWMIDs), but with matching sample dates and times.

At two stations, a multiprobe was deployed for a 24-hour period in order to obtain dissolved oxygen and temperature readings every 30 minutes. This occurred at Station RM01 on Rock Meadow Brook (05 to 06 June 2002) and at Station SR03 on the Stop River (01 to 02 July 2002). Data from these surveys are presented in Table 3. The Rock Meadow Brook station was not part of DWM's original water quality sampling plan, but was added to obtain spatial and temporal distribution of dissolved oxygen data on Rock Meadow Brook.

Field sheets, chain of custody forms, raw data files, lab reports and other metadata are maintained by DWM in Worcester, MA and data are stored electronically in DWM's water quality database. Detailed information regarding the data validation process is explained in the separate document, *Data Validation Report for Year 2002 Project Data* (MassDEP October 2005). Specific validation criteria used for 2002 data include, but are not limited to: conformance to DWM's Quality Assurance Project Plan and standard operating procedures, precision, accuracy, representativeness, holding times, sample preservation, frequency of field QC samples, contamination of field blanks, stability of multiprobe readings and documentation. The following data qualifiers were applied as needed:

Multiprobe data qualifiers:

** = Missing data.
-- = No data.
= Censored data (data that have been discarded for some reason).
c = Greater than calibration standard used for pre-calibration, or outside the acceptable range about the calibration standard.
i = Inaccurate readings from multiprobe likely.
m = Method not followed; one or more protocols contained in the DWM Multi-probe SOP not followed.
r = Data not representative of actual field conditions.
s = Field sheet recorded data were used to accept data, not data electronically recorded in the Multi-probe surveyor unit, due to operator error or equipment failure.
u = Unstable readings.

Laboratory sample data qualifiers:

** = Missing data.
-- = No data.
= Censored data (data that have been discarded for some reason).
[ ] = A result reported inside brackets has been censored, but is shown for informational purposes.
b = Blank contamination in lab reagent blanks and/or field blank samples.
d = Precision of field duplicates (as RPD) did not meet project data quality objectives identified for program or in QAPP.
e = Not theoretically possible. Specifically, used for bacteria data where colonies per unit volume for *E. coli* bacteria is greater than fecal coliform bacteria.
h = Holding time violation (usually indicating possible bias low).
j = 'Estimated' value; used for lab-related issues where certain lab QC criteria are not met and re-testing is not possible (as identified by the WES lab only). Also used to report sample data where the sample concentration is less than the reporting detection limit (RDL) and greater than the method detection limit (MDL) (RDL > x > MDL). Also used to note where values have been reported at levels less than the MDL.
m = Method SOP not followed, only partially implemented or not implemented at all, due to complications with sample matrix (e.g. sediment in sample, floc formation), lab error (e.g. cross-contamination between samples), additional steps taken by the lab to deal with matrix complications, lost/unanalyzed samples, and missing data.

Table 3. MassDEP DWM 2002 Charles River Watershed *in-situ* multiprobe data.

CHARLES RIVER (SARIS: 7239050)
Unique ID: W1134, Station: CR72.1, Mile Point: 72.089
Description: west of Route 85, approximately 100 feet from outlet of Wildcat Pond, Milford.

Date	OWMID	Time (24hr)	Depth (m)	Temp (°C)	pH (SU)	Conductivity at 25°C (µS/cm)	TDS (mg/L)	DO (mg/L)	DO Saturation (%)
04/29/02	72-0205	10:36	## i	8.1	5.4 u	92.6	59.3	11.1	94
04/30/02	72-0253	01:22	0.2	7.8	5.3	89.8	57.5	11.6	97
06/04/02	72-0298	12:38	0.1 i	17.5	5.7 i	202	130	9.2	93
06/05/02	72-0342	01:03	## i	17.3	5.7 i	202	129	9.2 u	93 u
07/09/02	72-0396	10:04	## i	20.2	5.6	118	75.6	3.2 u	35 u
07/10/02	72-0442	01:48	0.1 i	20.2	5.6	122	77.9	4.4 u	47 u
08/06/02	72-0494	12:51	0.2	19.7	6.0	134	85.5	3.4	37
08/07/02	No Flow	**	--	--	--	--	--	--	--
09/10/02	72-0585	12:56	## i	18.5 u	6.1 i	133 i	85.3 i	1.6 i	17 i
09/11/02	72-0630	02:01	## i	18.5	6.1	136	86.7	1.9 u	20 u

CHARLES RIVER (SARIS: 7239050)
Unique ID: W1135, Station: CR60.5, Mile Point: 60.515
Description: Maple Street, Bellingham.

Date	OWMID	Time (24hr)	Depth (m)	Temp (°C)	pH (SU)	Conductivity at 25°C (µS/cm)	TDS (mg/L)	DO (mg/L)	DO Saturation (%)
04/29/02	72-0209	12:10	0.3	9.3	6.8 u	549	351	10.9	94
04/30/02	72-0255	02:22	0.1 i	9.1	6.9 c	577	369	10.3	89
06/04/02	72-0304	13:59	0.1 i	20.8	6.9	596	382	8.8	96
06/05/02	72-0344	01:49	## i	20.3	6.6 iu	597	382	7.5 u	81 u
07/09/02	72-0400	11:12	0.1 i	25.0 u	7.2 c	758 c	485 c	8.0	96
07/10/02	72-0444	02:39	## i	23.7	6.8	735 c	470 c	5.6	65
08/06/02	72-0498	14:19	0.3	26.7	8.0 c	937 c	600 c	10.0	123
08/07/02	72-0541	02:10	0.1 i	21.9	7.1 c	924 c	592 c	6.1 u	69 u
09/10/02	72-0589	13:52	0.1 i	26.2	8.0 c	756 c	484 c	10.2	125

CHARLES RIVER (SARIS: 7239050)
Unique ID: W0414, Station: CR03, Mile Point: 54.677
Description: Walker Street, Medway (near USGS flow gaging station #01103280) (upstream of Charles River Pollution Control District (MA0102598) discharge).

Date	OWMID	Time (24hr)	Depth (m)	Temp (°C)	pH (SU)	Conductivity at 25°C (µS/cm)	TDS (mg/L)	DO (mg/L)	DO Saturation (%)
04/29/02	72-0212	13:09	0.1 i	8.7	6.9 c	389	249	11.5	98
04/30/02	72-0257	03:11	0.3	8.3	7.0 c	396	254	11.8 u	100 u
06/04/02	72-0307	14:54	0.2	18.7	7.0 ci	418	268	9.4	98
06/05/02	72-0346	02:26	## i	18.6	7.0 ci	416	266	9.0 u	94 u
07/09/02	72-0403	12:01	0.2	24.3	7.4 c	598	383	8.8 u	103 u
07/10/02	72-0446	03:15	0.1 i	23.4	7.3 c	593	380	8.4	98
08/06/02	72-0501	15:25	0.2	26.0	8.2 c	649	415	9.2	112
08/07/02	72-0543	02:45	## i	22.9	7.2 c	614	393	7.3 u	83 u
09/10/02	72-0594	14:37	0.1 i	23.3	8.3 c	645	413	10.4 u	120 u
09/11/02	72-0634	03:21	## i	21.9	7.5 c	655	419	7.6	86

Table 3 Continued. MassDEP DWM 2002 Charles River Watershed *in-situ* multiprobe data.

CHARLES RIVER (SARIS: 7239050)
Unique ID: W1136, Station: CR51.6, Mile Point: 51.649
Description: Dean Street, Millis (downstream from the Charles River Pollution Control District (MA0102598) discharge).

Date	OWMID	Time (24hr)	Depth (m)	Temp (°C)	pH (SU)	Conductivity at 25°C (µS/cm)	TDS (mg/L)	DO (mg/L)	DO Saturation (%)
04/29/02	72-0214	13:33	## i	10.0	6.8 u	444	284	10.6	94
04/30/02	72-0258	03:33	0.2	9.1	7.0 c	421	270	10.9	94
06/04/02	72-0309	15:20	0.2	20.3	6.9 ci	413	264	9.1	98
06/05/02	72-0347	02:43	## i	19.9	6.8 iu	421	269	8.3 u	89 u
07/09/02	72-0405	12:22	0.2	25.1	7.2 c	525	336	7.8	93
07/10/02	72-0447	03:39	0.2	24.5	7.2 c	540	346	8.1 u	96 u
08/06/02	72-0503	15:50	0.4	26.8	7.9 c	606	388	8.6	106
08/07/02	72-0544	03:06	0.1 iu	24.4	7.5 c	620	397	7.0 u	82 u
09/10/02	72-0596	15:04	0.1 i	24.4	7.9 c	606	388	10.1	119
09/11/02	72-0635	03:38	0.1 i	23.7	7.5 c	621	398	8.1	95

CHARLES RIVER (SARIS: 7239050)
Unique ID: W1137, Station: CR41.8, Mile Point: 41.805
Description: Route 27, Medfield/Sherborn.

Date	OWMID	Time (24hr)	Depth (m)	Temp (°C)	pH (SU)	Conductivity at 25°C (µS/cm)	TDS (mg/L)	DO (mg/L)	DO Saturation (%)
04/29/02	72-0244	12:09	0.3	9.6	6.8	366	234	9.6	84
04/30/02	72-0261	05:03	0.3	9.1	6.9	367	235	10.0 u	86 u
06/04/02	72-0315	17:10	0.6	21.2	6.6	324	207	7.2	79
06/05/02	72-0350	03:43	## i	19.9	6.6 i	327	209	6.7 u	72 u
07/09/02	72-0411	13:36	0.7	26.4 u	7.1 c	431	276	7.8 u	95 u
07/10/02	72-0450	04:44	0.4	25.5	7.1 c	416	266	7.1	85
08/06/02	72-0511	17:24	## i	27.8	8.3 c	552	353	9.9	124
08/07/02	72-0547	04:10	## ru	25.3	7.9 cu	553	354	8.5 u	103 u
09/10/02	72-0602	16:08	0.2 i	25.4	8.1 c	554	354	10.8	131
09/11/02	72-0638	04:39	0.9 i	24.4	7.7 cu	547	350	8.9	105

CHARLES RIVER (SARIS: 7239050)
Unique ID: W1138, Station: CR36.3, Mile Point: 36.334
Description: approximately 1000 feet upstream of Davis Brook confluence, Natick (informal boat launch off Route 16).

Date	OWMID	Time (24hr)	Depth (m)	Temp (°C)	pH (SU)	Conductivity at 25°C (µS/cm)	TDS (mg/L)	DO (mg/L)	DO Saturation (%)
04/29/02	72-0240	11:32	0.4	9.8	6.9 c	355	227	10.2 u	90 u
04/30/02	72-0274	05:29	0.4	9.0	7.1 c	350	224	9.5	82
06/04/02	72-0340	18:21	0.3	21.2	6.7	310	198	6.5 u	71 u
06/05/02	72-0363	05:59	0.3	19.5	6.6	312	200	5.5	58
07/10/02	72-0441	14:18	0.7	27.4	7.6 ciu	394	252	10.0	124
07/11/02	72-0463	06:31	0.5	23.0	6.9 c	395	253	3.8	43
08/06/02	72-0538	18:13	0.4	27.2 u	8.5 cu	521	333	9.9	123
08/07/02	72-0560	06:30	0.3	23.8	7.2 c	506	324	2.7	32
09/10/02	72-0629	18:44	0.5	25.9	8.2 c	564	361	10.6	128
09/11/02	72-0651	06:29	0.1 i	24.3 u	7.2 c	565 u	361 u	5.5	65

Table 3 Continued. MassDEP DWM 2002 Charles River Watershed *in-situ* multiprobe data.

CHARLES RIVER (SARIS: 7239050)
Unique ID: W1141, Station: CR28.9, Mile Point: 28.916
Description: approximately 500 feet downstream of Willow Street/South Street, Dover/Needham (approximately 1000 feet upstream of USGS Dover gage #01103500).

Date	OWMID	Time (24hr)	Depth (m)	Temp (°C)	pH (SU)	Conductivity at 25°C (µS/cm)	TDS (mg/L)	DO (mg/L)	DO Saturation (%)
04/29/02	72-0252	10:36	0.1 i	10.1	7.0 c	353	226	10.3	91
04/30/02	72-0272	04:56	0.2	9.5	7.3 c	365	234	11.0	95
06/04/02	72-0337	17:29	0.2	21.2	6.9 u	315	202	7.7 u	85 u
06/05/02	72-0361	05:22	0.4	20.0	6.8	315	201	7.8 u	84 u
07/10/02	72-0437	13:44	0.1 i	27.4	7.1 ciu	379	242	8.2 u	102 u
07/11/02	72-0461	05:52	0.3	24.3 u	7.2 c	372	238	7.8 u	91 u
08/06/02	72-0535	17:29	0.2	27.1 u	7.9 cu	433	277	8.2 u	101 u
08/07/02	72-0558	05:52	0.2	23.6 u	7.2 c	442	283	5.3 u	62 u
09/10/02	72-0624	17:51	0.2	24.9	7.7 c	527	337	6.8 u	81 u
09/11/02	72-0649	05:50	0.1 i	23.0	7.3 c	534	342	3.7 u	43 u

CHARLES RIVER (SARIS: 7239050)
Unique ID: W1139, Station: CR17.4, Mile Point: 17.413
Description: south of Route 16 at the Mary Hunnewell Bridge crossing (footbridge west of Wales Street/Walnut Street), Newton/Wellesley.

Date	OWMID	Time (24hr)	Depth (m)	Temp (°C)	pH (SU)	Conductivity at 25°C (µS/cm)	TDS (mg/L)	DO (mg/L)	DO Saturation (%)
04/29/02	72-0228	10:50	0.4	10.3	7.2 cu	399	256	11.3	100
04/30/02	72-0267	02:52	0.6	9.8	7.3 c	402	257	11.2	98
06/04/02	72-0327	15:26	1.1	22.3	7.1 c	328	210	9.4	105
06/05/02	72-0356	03:25	1.1	21.0	7.0 c	330	211	8.2	89
07/10/02	72-0425	11:54	0.5	25.4	6.9 ciu	377	241	7.5 u	90 u
07/11/02	72-0456	03:48	0.5	23.5	7.1 c	407	261	5.6	64
08/06/02	72-0523	15:03	0.6	26.8	7.2 c	472	302	5.7	70
08/07/02	72-0553	03:38	0.4	24.9	7.6 c	476	305	7.5	89
09/10/02	72-0614	14:58	0.8	24.8	7.3 c	532	341	6.3	75
09/11/02	72-0644	03:39	0.8 i	25.6	8.0 c	525	336	9.5 u	114 u

BEAVER BROOK (SARIS: 7240350)
Unique ID: W1142, Station: BV01, Mile Point: 0.137
Description: approximately 725 feet upstream of confluence with Charles River, Bellingham (upstream of footpath off Taunton Street).

Date	OWMID	Time (24hr)	Depth (m)	Temp (°C)	pH (SU)	Conductivity at 25°C (µS/cm)	TDS (mg/L)	DO (mg/L)	DO Saturation (%)
04/29/02	72-0207	11:32	0.1 i	8.7	6.2	272	174	10.5	90
04/30/02	72-0254	01:58	0.2	7.6	6.2	259	166	9.8 u	81 u
06/04/02	72-0302	13:21	0.1 i	17.4	6.4 i	329	210	8.4	85
06/05/02	72-0343	01:31	## i	16.2	6.4 i	341	218	7.9 u	78 u
07/09/02	72-0398	10:40	## i	21.3	6.5	328	210	6.5 u	73 u
07/10/02	72-0443	02:18	0.2	21.1	6.1	256	164	4.9 u	55 u
08/06/02	72-0496	13:25	0.1 i	22.0	6.6	273	174	6.8 u	76 u
08/07/02	72-0540	01:47	0.1 i	19.0	6.6	261	167	5.2 u	55 u
09/10/02	72-0587	13:27	## i	21.5	6.6	239	153	6.9	76
09/11/02	No Flow	**	--	--	--	--	--	--	--

Table 3 Continued. MassDEP DWM 2002 Charles River Watershed *in-situ* multiprobe data.

MINE BROOK (SARIS: 7240200)
Unique ID: W1146, Station: MB01B, Mile Point: 1.483
Description: Beech Street, Franklin.

Date	OWMID	Time (24hr)	Depth (m)	Temp (°C)	pH (SU)	Conductivity at 25°C (µS/cm)	TDS (mg/L)	DO (mg/L)	DO Saturation (%)
04/29/02	72-0210	12:31	0.1 i	8.3	6.4	394	252	9.3	79

MINE BROOK (SARIS: 7240200)
Unique ID: W1147, Station: MB01, Mile Point: 1.268
Description: Pond Street, Franklin.

Date	OWMID	Time (24hr)	Depth (m)	Temp (°C)	pH (SU)	Conductivity at 25°C (µS/cm)	TDS (mg/L)	DO (mg/L)	DO Saturation (%)
04/30/02	72-0256	02:49	0.2	7.6	6.4	395	253	9.0	75
06/04/02	72-0305	14:25	0.2	20.6 u	6.7 iu	462	296	9.7	105
06/05/02	72-0345	02:03	## i	18.4 u	6.5 i	479 u	306 u	6.9 u	71 u
07/09/02	72-0401	11:33	0.1 i	24.8	6.6	684	438	5.8	68
07/10/02	72-0445	02:56	## i	24.5	6.6	670	429	4.9	58
08/06/02	72-0499	14:50	0.1 i	25.8	7.1 c	633	405	8.3	101
08/07/02	72-0542	02:25	## r	22.3	6.9 c	660	422	6.0	69
09/10/02	72-0590	14:14	## i	24.8	7.2 c	619	396	9.7	115
09/11/02	72-0633	03:03	## i	22.9 u	6.7 iu	596 iu	382 iu	4.9 i	56 i

CHICKEN BROOK (SARIS: 7240175)
Unique ID: W1158, Station: CK06, Mile Point: 6.107
Description: Prentice Street, Holliston.

Date	OWMID	Time (24hr)	Depth (m)	Temp (°C)	pH (SU)	Conductivity at 25°C (µS/cm)	TDS (mg/L)	DO (mg/L)	DO Saturation (%)
04/29/02	72-0218	14:41	## i	8.7	6.3	141	90.1	11.2	95
04/30/02	72-0263	05:47	0.1 i	6.6	6.4	144	92.3	10.9 u	88 u

CHICKEN BROOK (SARIS: 7240175)
Unique ID: W1159, Station: CK05, Mile Point: 4.888
Description: Washington Street, Holliston.

Date	OWMID	Time (24hr)	Depth (m)	Temp (°C)	pH (SU)	Conductivity at 25°C (µS/cm)	TDS (mg/L)	DO (mg/L)	DO Saturation (%)
06/04/02	72-0319	18:14	0.1 i	16.1	6.7 i	315	202	8.6	85
06/05/02	72-0352	04:19	## i	14.5 u	6.6 iu	324	208	8.7 u	83 u
07/09/02	72-0417	14:30	0.2	21.0	6.9 c	504	323	7.4 u	82 u
07/10/02	72-0452	05:28	0.1 i	19.0	6.5	240	153	6.7	71
08/06/02	72-0515	18:30	## ru	19.6	7.0 c	518	331	6.9	74
08/07/02	72-0549	04:49	## i	17.5	7.1 c	528	338	7.2	74
09/10/02	72-0606	16:54	## i	21.3	7.0 c	506	324	6.7 u	75 u
09/11/02	72-0640	05:17	## i	19.8	7.0 cu	506	324	6.3 u	68 u

Table 3 Continued. MassDEP DWM 2002 Charles River Watershed *in-situ* multiprobe data.

STOP RIVER (SARIS: 7239925)
Unique ID: W1150, Station: SR02B, Mile Point: 4.904
Description: Campbell Street, Norfolk (approximately 1/2 mile upstream of MCI Norfolk Walpole WWTF (MA0102253) discharge).

Date	OWMID	Time (24hr)	Depth (m)	Temp (°C)	pH (SU)	Conductivity at 25°C (µS/cm)	TDS (mg/L)	DO (mg/L)	DO Saturation (%)
04/29/02	72-0248	13:09	0.4	10.3	7.0 c	248	159	10.5	93
04/30/02	72-0259	04:03	0.3	9.9	7.0 c	248	158	11.0	97
06/04/02	72-0311	16:03	0.3	23.4 u	6.9 ci	230	147	8.1	93
06/05/02	72-0348	03:07	## i	21.2	6.8 iu	232	149	8.6 u	95 u
07/01/02	72-0370	11:38	0.5	26.3	7.0	240	154	7.1	86
07/09/02	72-0407	12:49	0.4	25.6	6.8	258	165	5.7	69
07/10/02	72-0448	04:04	0.4	25.2	6.8	255	163	6.2	74
08/06/02	72-0505	16:19	0.2	24.8	6.8	294	188	4.3 u	51 u
08/07/02	72-0545	03:29	0.1 i	24.1	6.8	294	188	4.7 u	55 u
09/10/02	72-0598	15:25	0.1 i	25.0	7.1 c	296	190	6.8 u	81 u
09/11/02	72-0636	03:58	## i	23.9	7.2 c	295	189	7.1 u	83 u

STOP RIVER (SARIS: 7239925)
Unique ID: W1151, Station: SR03, Mile Point: 2.065
Description: Noon Hill Road, Medfield.

Date	OWMID	Time (24hr)	Depth (m)	Temp (°C)	pH (SU)	Conductivity at 25°C (µS/cm)	TDS (mg/L)	DO (mg/L)	DO Saturation (%)
04/29/02	72-0246	12:42	0.4	9.2	6.7	246	158	10.2	88
04/30/02	72-0260	04:30	0.2	8.4	6.7	252	161	9.4	79
06/04/02	72-0313	16:39	0.4	22.4	6.9 i	249	159	9.6	107
06/05/02	72-0349	03:25	## i	19.2	6.5 i	256	164	5.4 u	57 u
07/01/02	72-0371	11:57	0.1 i	24.0	6.7	294	188	4.2 u	49 u
07/01/02	72-0652	12:00	--	24.1	6.7	294	--	4.1	47
07/01/02	72-0652	12:30	--	24.3	6.7	295	--	4.2	49
07/01/02	72-0652	13:00	--	24.7	6.7	295	--	4.4	52
07/01/02	72-0652	13:30	--	25.0	6.7	295	--	4.6	55
07/01/02	72-0652	14:00	--	25.3	6.7	295	--	4.9	59
07/01/02	72-0652	14:30	--	25.7	6.7	294	--	5.2	63
07/01/02	72-0652	15:00	--	26.1	6.7	294	--	5.5	67
07/01/02	72-0652	15:30	--	26.4	6.8	293	--	5.9	71
07/01/02	72-0652	16:00	--	26.7	6.8	293	--	6.1	75
07/01/02	72-0652	16:30	--	27.0	6.8	292	--	6.5	79
07/01/02	72-0652	17:00	--	27.2	6.8	291	--	6.7	83
07/01/02	72-0652	17:30	--	27.3	6.9	291	--	7.0	86
07/01/02	72-0652	18:00	--	27.5	6.9	290	--	7.1	88
07/01/02	72-0652	18:30	--	27.6	6.9 c	290	--	7.2	89
07/01/02	72-0652	19:00	--	27.7	6.9 c	289	--	7.2	90
07/01/02	72-0652	19:30	--	27.8	6.9 c	289	--	7.2	90
07/01/02	72-0652	20:00	--	27.8	6.9 c	288	--	7.1	89
07/01/02	72-0652	20:30	--	27.8	6.9 c	287	--	7.1	88
07/01/02	72-0652	21:00	--	27.8	6.9 c	286	--	7.0	87
07/01/02	72-0652	21:30	--	27.7	6.9 c	285	--	6.9	85
07/01/02	72-0652	22:00	--	27.6	6.9 c	283	--	6.8	84
07/01/02	72-0652	22:30	--	27.6	6.9 c	281	--	6.6	82
07/01/02	72-0652	23:00	--	27.5	6.9	279	--	6.5	81
07/01/02	72-0652	23:30	--	27.3	6.8	277	--	6.4	79

Station SR03 continued on next page.

Table 3 Continued. MassDEP DWM 2002 Charles River Watershed *in-situ* multiprobe data.

Station continued from previous page.
STOP RIVER (SARIS: 7239925)
Unique ID: W1151, Station: SR03, Mile Point: 2.065
Description: Noon Hill Road, Medfield.

Date	OWMID	Time (24hr)	Depth (m)	Temp (°C)	pH (SU)	Conductivity at 25°C (µS/cm)	TDS (mg/L)	DO (mg/L)	DO Saturation (%)
07/02/02	72-0652	00:00	--	27.2	6.8	276	--	6.2	76
07/02/02	72-0652	00:30	--	27.0	6.8	276	--	6.1	74
07/02/02	72-0652	01:00	--	26.8	6.8	275	--	5.9	72
07/02/02	72-0652	01:30	--	26.7	6.8	275	--	5.7	69
07/02/02	72-0652	02:00	--	26.5	6.8	275	--	5.5	67
07/02/02	72-0652	02:30	--	26.3	6.8	276	--	5.3	64
07/02/02	72-0652	03:00	--	26.1	6.7	277	--	5.0	60
07/02/02	72-0652	03:30	--	25.9	6.7	279	--	4.8	57
07/02/02	72-0652	04:00	--	25.7	6.7	280	--	4.5	54
07/02/02	72-0652	04:30	--	25.5	6.7	280	--	4.3	51
07/02/02	72-0652	05:00	--	25.3	6.7	282	--	4.1	49
07/02/02	72-0652	05:30	--	25.1	6.7	282	--	3.9	47
07/02/02	72-0652	06:00	--	25.0	6.7	284	--	3.8	45
07/02/02	72-0652	06:30	--	24.8	6.6	284	--	3.6	43
07/02/02	72-0652	07:00	--	24.7	6.6	284	--	3.5	41
07/02/02	72-0652	07:30	--	24.6	6.6	285	--	3.4	40
07/02/02	72-0652	08:00	--	24.5	6.6	286	--	3.3	39
07/02/02	72-0652	08:30	--	24.5	6.6	287	--	3.3	39
07/02/02	72-0652	09:00	--	24.5	6.6	288	--	3.3	39
07/02/02	72-0652	09:30	--	24.5	6.6	288	--	3.3	39
07/02/02	72-0652	10:00	--	24.6	6.6	289	--	3.3	39
07/02/02	72-0652	10:30	--	24.7	6.6	290	--	3.4	39
07/02/02	72-0652	11:00	--	24.8	6.6	291	--	3.4	40
07/02/02	72-0652	11:30	--	24.9	6.6	292	--	3.5	41
07/02/02	72-0652	12:00	--	25.0	6.6	293	--	3.6	42
07/09/02	72-0409	13:11	0.5	24.9	6.7	324	207	4.3	51
07/10/02	72-0449	04:22	0.4	23.8	6.8	308	197	4.6	54
08/06/02	72-0509	16:49	0.3	25.5	7.0 c	401	256	4.4	53
08/07/02	72-0546	03:46	0.1 i	22.5	7.0 c	423	271	4.0 u	46 u
09/10/02	72-0600	15:45	## i	22.7	6.9 c	395	253	4.4 u	50 u
09/11/02	72-0637	04:14	## i	24.9	6.9	370	237	3.0 u	35 u

BOGASTOW BROOK (SARIS: 7239775)
Unique ID: W0423, Station: BB08, Mile Point: 1.883
Description: at Orchard Street below Bogastow Pond in the northern most outlet, Millis.

Date	OWMID	Time (24hr)	Depth (m)	Temp (°C)	pH (SU)	Conductivity at 25°C (µS/cm)	TDS (mg/L)	DO (mg/L)	DO Saturation (%)
04/29/02	72-0216	14:09	0.1 i	8.6	6.5	264	169	10.6	90
04/30/02	72-0262	05:22	0.2	7.6	6.7	271	173	10.5 u	87 u
06/04/02	72-0317	17:40	0.2	19.2	6.6 i	270 u	173 u	8.0	84
06/05/02	72-0351	03:58	## i	17.4	6.5 i	268	172	7.1 u	72 u
07/09/02	72-0413	14:00	0.1 i	24.5	6.8	332	212	6.7	79
07/10/02	72-0451	05:07	0.2	21.7	6.7	297	190	7.0 u	78 u
08/06/02	72-0513	17:55	0.2	24.4 u	7.1 c	314	201	6.7	79
08/07/02	72-0548	04:28	0.1 i	21.2	7.0 cu	316	203	5.2 u	58 u
09/10/02	72-0604	16:28	## i	22.7	6.9 c	381	244	5.9 u	68 u
09/11/02	72-0639	04:56	## i	21.5	6.8	382	245	5.2 u	58 u

Table 3 Continued. MassDEP DWM 2002 Charles River Watershed *in-situ* multiprobe data.

FULLER BROOK (SARIS: 7239625)
Unique ID: W0409, Station: FB01, Mile Point: 0.302
Description: Dover Road, Wellesley.

Date	OWMID	Time (24hr)	Depth (m)	Temp (°C)	pH (SU)	Conductivity at 25°C (µS/cm)	TDS (mg/L)	DO (mg/L)	DO Saturation (%)
04/29/02	72-0250	11:09	0.3	7.9	7.0 c	320	205	10.8	91
04/30/02	72-0273	05:14	0.3	7.4	7.2 c	314	201	10.5	87
06/04/02	72-0338	17:58	0.2	17.1	7.0 c	396	253	8.0 u	81 u
06/05/02	72-0362	05:42	0.1 i	14.8	7.0 c	400	256	8.4	80
07/10/02	72-0439	14:01	0.2	22.2	6.9 ciu	296	189	7.2 u	82 u
07/11/02	72-0462	06:11	0.1 i	17.4	7.1 c	428	274	7.3	75
08/06/02	72-0536	17:54	0.1 i	21.5	7.2 c	504	323	7.4	82
08/07/02	72-0559	06:13	0.1 i	17.6	7.1 c	514	329	7.0	72
09/10/02	72-0625	18:19	0.1 i	22.0	7.4 c	554	354	7.9	89
09/11/02	72-0650	06:11	## i	20.3	7.2 c	542	347	6.4 u	69 u

ROCK MEADOW BROOK (SARIS: 7239500)
Unique ID: W0406, Station: RM01, Mile Point: 1.147
Description: Summer Street, Westwood.

Date	OWMID	Time (24hr)	Depth (m)	Temp (°C)	pH (SU)	Conductivity at 25°C (µS/cm)	TDS (mg/L)	DO (mg/L)	DO Saturation (%)
06/05/02	72-0364	09:00s	0.3	18.0	6.8 u	369	236	8.4 u	87 u
06/05/02	72-0365	09:30	--	18.0	6.9 c	370	237	8.2 m	85 m
06/05/02	72-0365	10:00	--	18.0	6.9 c	370	237	8.3 m	85 m
06/05/02	72-0365	10:30	--	18.0	6.9 c	370	237	8.3 m	85 m
06/05/02	72-0365	11:00	--	18.1	6.9 c	370	237	8.2 m	85 m
06/05/02	72-0365	11:30	--	18.1	6.9 c	371	237	8.3 m	85 m
06/05/02	72-0365	12:00	--	18.1	6.9 c	371	237	8.2 m	85 m
06/05/02	72-0365	12:30	--	18.2	6.9 c	371	237	8.2 m	85 m
06/05/02	72-0365	13:00	--	18.3	6.9 c	371	237	8.2 m	85 m
06/05/02	72-0365	13:30	--	18.3	6.9 c	371	237	8.2 m	85 m
06/05/02	72-0365	14:00	--	18.4	6.9 c	371	237	8.2 m	85 m
06/05/02	72-0365	14:30	--	18.5	6.9 c	371	237	8.2 m	85 m
06/05/02	72-0365	15:00	--	18.6	6.9 c	371	237	8.1 m	85 m
06/05/02	72-0365	15:30	--	18.6	6.9 c	371	238	8.1 m	85 m
06/05/02	72-0365	16:00	--	18.8	6.9 c	371	238	8.1 m	85 m
06/05/02	72-0365	16:30	--	18.9	6.9 c	372	238	8.1 m	85 m
06/05/02	72-0365	17:00	--	19.0	6.9 c	372	238	8.1 m	85 m
06/05/02	72-0365	17:30	--	19.1	6.9 c	372	238	8.0 m	84 m
06/05/02	72-0365	18:00	--	19.2	6.9 c	372	238	7.9 m	84 m
06/05/02	72-0365	18:30	--	19.3	6.9 c	372	238	7.9 m	84 m
06/05/02	72-0365	19:00	--	19.3	6.9 c	372	238	7.9 m	84 m
06/05/02	72-0365	19:30	--	19.4	6.9 c	372	238	7.9 m	84 m
06/05/02	72-0365	20:00	--	19.4	6.9 c	372	238	7.9 m	84 m
06/05/02	72-0365	20:30	--	19.4	6.9 c	372	238	7.9 m	83 m
06/05/02	72-0365	21:00	--	19.4	6.9 c	372	238	7.8 m	83 m
06/05/02	72-0365	21:30	--	19.3	6.9 c	373	239	7.9 m	83 m
06/05/02	72-0365	22:00	--	19.3	6.9 c	373	239	7.9 m	83 m
06/05/02	72-0365	22:30	--	19.2	6.9 c	373	239	7.9 m	83 m
06/05/02	72-0365	23:00	--	19.2	6.9 c	373	239	7.9 m	84 m
06/05/02	72-0365	23:30	--	19.2	6.9 c	373	238	7.9 m	83 m
06/06/02	72-0365	00:00	--	19.2	6.9 c	373	238	7.9 m	84 m

Station RM01 continued on next page.

Table 3 Continued. MassDEP DWM 2002 Charles River Watershed *in-situ* multiprobe data.

Station continued from previous page.
ROCK MEADOW BROOK (SARIS: 7239500)
Unique ID: W0406, Station: RM01, Mile Point: 1.147
Description: Summer Street, Westwood.

Date	OWMID	Time (24hr)	Depth (m)	Temp (°C)	pH (SU)	Conductivity at 25°C (µS/cm)	TDS (mg/L)	DO (mg/L)	DO Saturation (%)
06/06/02	72-0365	00:30	--	19.1	6.9 c	373	239	7.9 m	84 m
06/06/02	72-0365	01:00	--	18.9	6.8	348	222	7.9 m	83 m
06/06/02	72-0365	01:30	--	18.7	6.8	329	211	7.7 m	81 m
06/06/02	72-0365	02:00	--	18.5	6.7	335	215	7.7 m	80 m
06/06/02	72-0365	02:30	--	18.4	6.7	339	217	7.7 m	81 m
06/06/02	72-0365	03:00	--	18.4	6.7	333	213	7.8 m	81 m
06/06/02	72-0365	03:30	--	18.3	6.7	325	208	7.8 m	81 m
06/06/02	72-0365	04:00	--	18.2	6.7	333	213	7.8 m	81 m
06/06/02	72-0365	04:30	--	18.3	6.7	338	217	7.8 m	81 m
06/06/02	72-0365	05:00	--	18.3	6.7	341	218	7.8 m	81 m
06/06/02	72-0365	05:30	--	18.3	6.7	343	219	7.9 m	82 m
06/06/02	72-0365	06:00	--	18.3	6.8	344	220	7.9 m	82 m
06/06/02	72-0365	06:30	--	18.3	6.8	346	222	7.9 m	82 m
06/06/02	72-0365	07:00	--	18.3	6.8	350	224	8.0 m	83 m
06/06/02	72-0365	07:30	--	18.3	6.8	350	224	8.0 m	83 m
06/06/02	72-0365	08:00	--	18.4	6.8	350	224	8.0 m	83 m
06/06/02	72-0365	08:30	--	18.4	6.8	351	225	8.0 m	83 m
06/06/02	72-0365	09:00	--	18.4	6.8	353	226	8.0 m	83 m
06/06/02	72-0366	09:30s	0.3	18.5	6.8	355	227	8.2 u	86 u

ROCK MEADOW BROOK (SARIS: 7239500)
Unique ID: W1155, Station: RM01A, Mile Point: 0.376
Description: approximately 2300 feet downstream of Westfield Street, Dedham (upstream of golf course impoundment).

Date	OWMID	Time (24hr)	Depth (m)	Temp (°C)	pH (SU)	Conductivity at 25°C (µS/cm)	TDS (mg/L)	DO (mg/L)	DO Saturation (%)
04/29/02	72-0369	09:55	0.3	7.8 u	6.4	379	242	7.5 u	63 u
04/30/02	72-0271	04:27	0.4	7.2 u	6.9 cu	358	229	8.2	67
06/05/02	72-0360	04:58	0.2	17.2 u	6.5	348	223	3.6	36
06/06/02	72-0367	10:30s	0.6	18.2	6.2	298	191	1.9	19
07/11/02	72-0460	05:28	0.3	19.0	6.3	385	246	1.5	16
08/06/02	72-0533	17:00	0.2	24.7	6.7	415	266	6.8	80
08/07/02	72-0557	05:20	0.1 i	18.8	6.4	415	266	0.5	6
09/10/02	72-0622	17:19	0.1 i	27.5	6.4	436	279	6.9	86
09/11/02	72-0648	05:24	## i	22.2	6.3	435	278	1.2	14

Table 3 Continued. MassDEP DWM 2002 Charles River Watershed *in-situ* multiprobe data.

SAWMILL BROOK (SARIS: 7239400)
Unique ID: W0402, Station: SB01, Mile Point: 1.286
Description: Saint Josephs Cemetery, West Roxbury, Boston (approximately 140 feet upstream of Baker Street).

Date	OWMID	Time (24hr)	Depth (m)	Temp (°C)	pH (SU)	Conductivity at 25°C (µS/cm)	TDS (mg/L)	DO (mg/L)	DO Saturation (%)
04/29/02	72-0234	12:12	0.1 im	8.3 m	7.0 cmu	498 m	318 m	10.5 mu	89 mu
04/30/02	72-0270	03:57	0.4	7.9	7.1 c	601	384	9.7	81
06/04/02	72-0335	16:51	0.1 i	13.9	6.6	814 c	521 c	6.2 u	59 u
06/05/02	72-0359	04:29	0.6	13.3	6.6	839 c	537 c	6.0	56
07/10/02	72-0433	13:13	0.6	19.6	6.7 i	307	197	5.3 u	57 u
07/11/02	72-0459	04:55	0.3	16.5	6.6	602	385	3.6	36
08/06/02	72-0531	16:23	0.4	17.1	6.5	1,130 c	722 c	2.9	30
08/07/02	72-0556	04:47	0.5	16.2	6.5	1,140 c	728 c	2.3	23
09/10/02	72-0620	16:29	0.3	18.8 u	6.6	1,160 c	746 c	3.0	32
09/11/02	72-0647	04:44	0.2 i	18.3	6.6	1,170 c	746 c	2.2 u	23 u

SOUTH MEADOW BROOK (SARIS: 7239375)
Unique ID: W1397, Station: SM01B, Mile Point: 0.559
Description: approximately 475 feet downstream of Needham Street, Newton (upstream of stormdrain on right bank).

Date	OWMID	Time (24hr)	Depth (m)	Temp (°C)	pH (SU)	Conductivity at 25°C (µS/cm)	TDS (mg/L)	DO (mg/L)	DO Saturation (%)
04/29/02	72-0232	11:42	0.2	8.5	6.9 cu	646	413	10.4 u	89 u

SOUTH MEADOW BROOK (SARIS: 7239375)
Unique ID: W0399, Station: SM01, Mile Point: 0.543
Description: approximately 575 feet downstream of Needham Street, Newton (downstream of stormdrain on right bank).

Date	OWMID	Time (24hr)	Depth (m)	Temp (°C)	pH (SU)	Conductivity at 25°C (µS/cm)	TDS (mg/L)	DO (mg/L)	DO Saturation (%)
04/30/02	72-0269	03:34	0.1 i	7.9	7.0 c	611	391	8.9	75
06/04/02	72-0333	16:26	0.1 i	15.1	6.9 c	906 c	580 c	7.4	72
06/05/02	72-0358	04:04	0.1 i	14.1	6.7	960 c	614 c	5.8 u	55 u
07/10/02	72-0429	12:48	0.2	19.4	6.7	628	402	3.8	40
07/11/02	72-0458	04:32	0.1 i	16.4	6.7	952 c	609 c	3.5	36
08/06/02	72-0529	15:58	0.1 i	18.6	6.8	832 c	533 c	5.2	55
08/07/02	72-0555	04:22	## i	17.2	6.8	1,070 c	682 c	3.9	40
09/10/02	72-0618	15:55	0.1 i	20.5	7.0 c	939 cu	601 cu	5.2	57
09/11/02	72-0646	04:22	## i	20.1	6.8	1,030 c	658 c	3.9	42

Table 3 Continued. MassDEP DWM 2002 Charles River Watershed *in-situ* multiprobe data.

ROSEMARY BROOK (SARIS: 7239325)
Unique ID: W1156, Station: RB02, Mile Point: 0.097
Description: Barton Road, Wellesley.

Date	OWMID	Time (24hr)	Depth (m)	Temp (°C)	pH (SU)	Conductivity at 25°C (µS/cm)	TDS (mg/L)	DO (mg/L)	DO Saturation (%)
04/29/02	72-0230	11:18	0.1 i	9.4	6.9 cu	484	310	8.7 u	76 u
04/30/02	72-0268	03:10	0.2	9.2	7.1 c	494	316	9.2	80
06/04/02	72-0329	15:50	0.1 i	18.2	6.7	455	291	6.3	65
06/05/02	72-0357	03:41	0.1 i	17.7	6.6	480	307	5.8 u	59 u
07/10/02	72-0427	12:11	0.2	20.8	6.5 i	455	291	4.1 u	45 u
07/11/02	72-0457	04:08	0.1 i	17.0	6.5	646	414	3.6	36
08/06/02	72-0527	15:27	0.1 i	21.6	6.8	593	380	4.1	46
08/07/02	72-0554	03:56	0.1 i	18.3	6.7	587	375	4.3 u	45 u
09/10/02	72-0616	15:22	0.1 i	## u	6.7 iu	819 ciu	524 ciu	3.9 iu	40 iu
09/11/02	72-0645	04:00	## i	18.2 u	6.6	965 cu	617 cu	3.6 u	37 u

STONY BROOK (SARIS: 7239200)
Unique ID: W1157, Station: ST00, Mile Point: 0.084
Description: railroad tracks near Sibley Road, Weston/Waltham.

Date	OWMID	Time (24hr)	Depth (m)	Temp (°C)	pH (SU)	Conductivity at 25°C (µS/cm)	TDS (mg/L)	DO (mg/L)	DO Saturation (%)
04/29/02	72-0220	08:47	0.1 i	7.9	6.8	356	228	10.6	89
06/04/02	72-0321	13:31	0.2	16.7	6.6	452	289	8.8	88
06/05/02	72-0353	02:12	0.2	16.7	6.6	459	294	7.7 u	78 u
07/10/02	72-0419	10:34	0.3	21.0	6.8 i	729 c	467 c	7.5	83
07/11/02	72-0453	02:14	0.4	20.2	6.8	776 c	496 c	7.7	84
08/06/02	72-0517	13:01	0.6	23.4	6.9	826 c	529 c	7.0	81
08/07/02	72-0550	02:18	0.2	22.4	6.8	827 c	530 c	6.6	75
09/10/02	72-0608	13:06	0.1 i	22.0	6.8	741 c	474 c	7.0	79
09/11/02	72-0641	01:59	## i	22.1	6.8	746 c	477 c	5.5	62

BEAVER BROOK (SARIS: 7239125)
Unique ID: W1143, Station: BE03, Mile Point: 3.026
Description: at inlet to Mill Pond, Waltham/Belmont.

Date	OWMID	Time (24hr)	Depth (m)	Temp (°C)	pH (SU)	Conductivity at 25°C (µS/cm)	TDS (mg/L)	DO (mg/L)	DO Saturation (%)
04/29/02	72-0222	09:33	0.4	6.5	6.7 u	750 c	480 c	10.1 u	82 u
04/30/02	72-0265	02:04	0.5	6.6	6.7 u	764 c	489 c	9.9	81
06/04/02	72-0323	14:10	0.3	14.5	6.8	992 c	635 c	8.6	83
06/05/02	72-0354	02:40	0.2	15.0	6.7	1,050 c	669 c	7.6 u	74 u
07/10/02	72-0421	11:05	0.3	20.0	6.8 i	765 c	490 c	6.5 u	71 u
07/11/02	72-0454	02:48	0.3	17.3	6.9 c	1,330 c	852 c	6.4	66
08/06/02	72-0519	13:38	0.6	18.8	6.5	639	409	5.6	59
08/07/02	72-0551	02:47	0.2	15.7 u	6.4	649 u	415 u	4.4	44
09/10/02	72-0610	13:50	0.2	19.3 u	6.6	841 c	538 c	5.7 u	61 u
09/11/02	72-0642	02:33	0.1 i	17.6 u	6.5	823 ciu	527ciu	4.7 u	49 u

Table 3 Continued. MassDEP DWM 2002 Charles River Watershed *in-situ* multiprobe data.

CHEESE CAKE BROOK (SARIS: 7239100)
Unique ID: W0386, Station: CB01, Mile Point: 0.037
Description: east of Albemarle Road, below channelized walls, upstream of confluence with Charles River, Newton.

Date	OWMID	Time (24hr)	Depth (m)	Temp (°C)	pH (SU)	Conductivity at 25°C (µS/cm)	TDS (mg/L)	DO (mg/L)	DO Saturation (%)
04/29/02	72-0225	10:07	0.2	9.1	6.7	736 cu	471 cu	11.1	96
04/30/02	72-0266	02:30	0.3	8.7	6.8	564	361	8.9 u	76 u
06/04/02	72-0325	14:57	0.3	20.9 u	6.7	997 c	638 c	10.3 u	113 u
06/05/02	72-0355	03:04	0.2	13.9	6.4	972 c	622 c	6.6 u	62 u
07/10/02	72-0423	11:29	0.3	20.4	6.5 iu	592	379	9.4 u	103 u
07/11/02	72-0455	03:21	0.3	15.5	6.5	881 c	564 c	5.2	51
08/06/02	72-0521	14:28	0.7	21.5 u	7.1 c	915 cu	586 cu	12.7 u	142 u
08/07/02	72-0552	03:12	0.3	16.9	6.6	910 c	582 c	5.5	56
09/10/02	72-0612	14:21	0.3	20.8	7.0 c	900 c	576 c	12.0	132
09/11/02	72-0643	03:11	0.3 i	20.0	6.6	906 c	580 c	4.5 u	49 u

Table 4. MassDEP DWM 2002 Charles River Watershed Bacteria, Nutrient and Total Suspended Solids Data.

CHARLES RIVER (SARIS: 7239050)
Unique ID: W1134, Station: CR72.1, Mile Point: 72.089
Description: west of Route 85, approximately 100 feet from outlet of Wildcat Pond, Milford.

Date	OWMID	Time (24hr)	Fecal Coliform (cfu/100ml)	*E. coli* (cfu/100ml)	*Enterococcus* (cfu/100ml)	NH3-N (mg/L)	TP (mg/L)	TSS (mg/L)
04/29/02	72-0202	10:35	20	<20	--	<0.06	0.024 d	<1.0
04/29/02	72-0203	10:35	<20	<20	--	<0.02	0.017 d	<1.0
06/03/02	72-0275	07:20	59 h	20 h	10 h	--	--	--
06/04/02	72-0297	12:31	--	--	--	<0.06	0.022	1.8
07/08/02	72-0372	07:05	<6	<6	--	--	--	--
07/09/02	72-0395	10:00	--	--	--	0.06	## bd	6.9
08/05/02	72-0470	07:19	71 e	97 e	--	--	--	--
08/06/02	72-0493	12:42	--	--	--	0.10	0.034 j	3.9
09/09/02	72-0561	07:13	39 e	60 e	--	--	--	--
09/10/02	72-0584	12:55	--	--	--	0.19	0.041	30

CHARLES RIVER (SARIS: 7239050)
Unique ID: W1135, Station: CR60.5, Mile Point: 60.515
Description: Maple Street, Bellingham.

Date	OWMID	Time (24hr)	Fecal Coliform (cfu/100ml)	*E. coli* (cfu/100ml)	*Enterococcus* (cfu/100ml)	NH3-N (mg/L)	TP (mg/L)	TSS (mg/L)
04/29/02	72-0208	12:05	--	--	--	0.07	0.040	1.8
06/04/02	72-0303	13:50	--	--	--	0.09	0.058	4.4
07/09/02	72-0399	11:08	--	--	--	<0.02	## bd	6.6
08/06/02	72-0497	14:15	--	--	--	<0.02	0.037	2.8
09/10/02	72-0588	13:50	--	--	--	<0.02	0.068	8.5

CHARLES RIVER (SARIS: 7239050)
Unique ID: W0414, Station: CR03, Mile Point: 54.677
Description: Walker Street, Medway (near USGS flow gaging station #01103280) (upstream of Charles River Pollution Control District (MA0102598) discharge).

Date	OWMID	Time (24hr)	Fecal Coliform (cfu/100ml)	*E. coli* (cfu/100ml)	*Enterococcus* (cfu/100ml)	NH3-N (mg/L)	TP (mg/L)	TSS (mg/L)
04/29/02	72-0211	13:05	59	20	--	<0.06	0.034	1.4
06/03/02	72-0278	08:30	120	78	39	--	--	--
06/04/02	72-0306	14:48	--	--	--	<0.06	0.055	3.0
07/08/02	72-0377	08:10	52	45	--	--	--	--
07/09/02	72-0402	11:56	--	--	--	<0.02	## bd	1.7
08/05/02	72-0473	08:19	65	58	--	--	--	--
08/06/02	72-0500	15:15	--	--	--	<0.02	0.033	1.1
09/09/02	72-0566	08:24	65	20	--	--	--	--
09/10/02	72-0591	14:33	--	--	--	<0.02	0.031	1.3
09/10/02	72-0592	14:33	--	--	--	<0.02	0.026	<1.0

Table 4 Continued. MassDEP DWM 2002 Charles River Watershed Bacteria, Nutrient and Total Suspended Solids Data.

CHARLES RIVER (SARIS: 7239050)
Unique ID: W1136, Station: CR51.6, Mile Point: 51.649
Description: Dean Street, Millis (downstream from the Charles River Pollution Control District (MA0102598) discharge).

Date	OWMID	Time (24hr)	Fecal Coliform (cfu/100ml)	*E. coli* (cfu/100ml)	*Enterococcus* (cfu/100ml)	NH3-N (mg/L)	TP (mg/L)	TSS (mg/L)
04/29/02	72-0213	13:29	--	--	--	<0.06	0.028	2.7
06/04/02	72-0308	15:15	--	--	--	<0.06	0.061	5.5
07/09/02	72-0404	12:20	--	--	--	<0.02	## bd	2.5
08/06/02	72-0502	15:40	--	--	--	<0.02	0.041	3.0
09/10/02	72-0595	14:59	--	--	--	<0.02	0.039	2.7

CHARLES RIVER (SARIS: 7239050)
Unique ID: W1137, Station: CR41.8, Mile Point: 41.805
Description: Route 27, Medfield/Sherborn.

Date	OWMID	Time (24hr)	Fecal Coliform (cfu/100ml)	*E. coli* (cfu/100ml)	*Enterococcus* (cfu/100ml)	NH3-N (mg/L)	TP (mg/L)	TSS (mg/L)
04/29/02	72-0243	12:05	--	--	--	<0.06	0.042 d	2.6
06/04/02	72-0314	17:05	--	--	--	0.09	0.086	7.7
07/09/02	72-0410	13:30	--	--	--	<0.02	## bd	7.6
08/06/02	72-0510	17:15	--	--	--	<0.02	0.073	5.3
09/10/02	72-0601	16:05	--	--	--	<0.06	0.035	2.5

CHARLES RIVER (SARIS: 7239050)
Unique ID: W1138, Station: CR36.3, Mile Point: 36.334
Description: approximately 1000 feet upstream of Davis Brook confluence, Natick (informal boat launch off Route 16).

Date	OWMID	Time (24hr)	Fecal Coliform (cfu/100ml)	*E. coli* (cfu/100ml)	*Enterococcus* (cfu/100ml)	NH3-N (mg/L)	TP (mg/L)	TSS (mg/L)
04/29/02	72-0239	11:30	59	<20	--	<0.06	## d	2.1
04/29/02	72-0241	11:30	39	<20	--	<0.06	## d	2.1
06/03/02	72-0292	10:46	20 e	59 e	39	--	--	--
06/04/02	72-0339	18:18	--	--	--	0.09	0.12	24
07/08/02	72-0393	09:55	58	39	--	--	--	--
07/10/02	72-0440	14:12	--	--	--	<0.02	0.064	3.6
08/05/02	72-0480	10:05	100	45	--	--	--	--
08/06/02	72-0537	18:05	--	--	--	<0.06	0.045 j	## d
09/09/02	72-0571	10:15	## j	## j	--	--	--	--
09/10/02	72-0626	18:40	--	--	--	<0.06	0.037 d	4.3
09/10/02	72-0627	18:40	--	--	--	<0.06	0.054 d	4.0

CHARLES RIVER (SARIS: 7239050)
Unique ID: W1141, Station: CR28.9, Mile Point: 28.916
Description: approximately 500 feet downstream of Willow Street/South Street, Dover/Needham (approximately 1000 feet upstream of USGS Dover gage #01103500).

Date	OWMID	Time (24hr)	Fecal Coliform (cfu/100ml)	*E. coli* (cfu/100ml)	*Enterococcus* (cfu/100ml)	NH3-N (mg/L)	TP (mg/L)	TSS (mg/L)
04/29/02	72-0251	10:33	--	--	--	<0.06	0.053 d	2.1
06/04/02	72-0336	17:32	--	--	--	0.07	0.10	18
07/10/02	72-0436	13:40	--	--	--	<0.02	0.07	2.4
08/06/02	72-0534	17:20	--	--	--	<0.02	0.050 j	## d
09/10/02	72-0623	17:50	--	--	--	<0.02	0.023	<1.0

Table 4 Continued. Mass DEP DWM 2002 Charles River Watershed Bacteria, Nutrient and Total Suspended Solids Data.

CHARLES RIVER (SARIS: 7239050)
Unique ID: W1139, Station: CR17.4, Mile Point: 17.413
Description: south of Route 16 at the Mary Hunnewell Bridge crossing (footbridge west of Wales Street/Walnut Street), Newton/Wellesley.

Date	OWMID	Time (24hr)	Fecal Coliform (cfu/100ml)	*E. coli* (cfu/100ml)	*Enterococcus* (cfu/100ml)	NH3-N (mg/L)	TP (mg/L)	TSS (mg/L)
04/29/02	72-0227	10:50	--	--	--	0.07	0.075	9.2
06/04/02	72-0326	15:31	--	--	--	<0.06	0.077	7.7
07/10/02	72-0424	11:50	--	--	--	<0.06	0.074	6.2
09/10/02	72-0613	14:53	--	--	--	<0.06	0.038	2.3

BEAVER BROOK (SARIS: 7240350)
Unique ID: W1142, Station: BV01, Mile Point: 0.137
Description: approximately 725 feet upstream of confluence with Charles River, Bellingham (upstream of footpath off Taunton Street).

Date	OWMID	Time (24hr)	Fecal Coliform (cfu/100ml)	*E. coli* (cfu/100ml)	*Enterococcus* (cfu/100ml)	NH3-N (mg/L)	TP (mg/L)	TSS (mg/L)
04/29/02	72-0206	11:30	78	20	--	<0.06	0.027	<1.0
06/03/02	72-0277	08:08	160 e	220 e	270	--	--	--
06/04/02	72-0299	13:10	--	--	--	0.06	0.021	1.8
06/04/02	72-0300	13:10	--	--	--	0.08	0.026	1.6
07/08/02	72-0376	07:50	240 e	300 e	--	--	--	--
07/09/02	72-0397	10:40	--	--	--	0.08	## bd	7.0
08/05/02	72-0472	07:58	570	530	--	--	--	--
08/06/02	72-0495	13:19	--	--	--	<0.02	0.030 j	2.1
09/09/02	72-0563	07:59	370	200	--	--	--	--
09/09/02	72-0564	07:59	420	220	--	--	--	--
09/10/02	72-0586	13:26	--	--	--	<0.02	0.024	3.3

CHICKEN BROOK (SARIS: 7240175)
Unique ID: W1158, Station: CK06, Mile Point: 6.107
Description: Prentice Street, Holliston.

Date	OWMID	Time (24hr)	Fecal Coliform (cfu/100ml)	*E. coli* (cfu/100ml)	*Enterococcus* (cfu/100ml)	NH3-N (mg/L)	TP (mg/L)	TSS (mg/L)
04/29/02	72-0217	14:40	78	<20	--	<0.06	0.021	1.6

CHICKEN BROOK (SARIS: 7240175)
keUnique ID: W1159, Station: CK05, Mile Point: 4.888
Description: Washington Street, Holliston.

Date	OWMID	Time (24hr)	Fecal Coliform (cfu/100ml)	*E. coli* (cfu/100ml)	*Enterococcus* (cfu/100ml)	NH3-N (mg/L)	TP (mg/L)	TSS (mg/L)
06/03/02	72-0276	07:45	420 h	290 h	560 h	--	--	--
06/04/02	72-0318	18:10	--	--	--	<0.06	0.025	1.4
07/08/02	72-0373	07:30	97 e	110 e	--	--	--	--
07/08/02	72-0374	07:30	150	150	--	--	--	--
07/09/02	72-0414	14:24	--	--	--	<0.06	## bd	1.2
07/09/02	72-0415	14:24	--	--	--	<0.02	## bd	<1.0
08/05/02	72-0471	07:36	120	120	--	--	--	--
08/06/02	72-0514	18:20	--	--	--	<0.02	0.039	1.1
09/09/02	72-0562	07:35	140	60	--	--	--	--
09/10/02	72-0605	16:50	--	--	--	<0.06	0.034	4.7

Table 4 Continued. Mass DEP DWM 2002 Charles River Watershed Bacteria, Nutrient and Total Suspended Solids Data.

STOP RIVER (SARIS: 7239925)
Unique ID: W1150, Station: SR02B, Mile Point: 4.904
Description: Campbell Street, Norfolk (approximately 1/2 mile upstream of MCI Norfolk Walpole WWTF (MA0102253) discharge).

Date	OWMID	Time (24hr)	Fecal Coliform (cfu/100ml)	*E. coli* (cfu/100ml)	*Enterococcus* (cfu/100ml)	NH3-N (mg/L)	TP (mg/L)	TSS (mg/L)
04/29/02	72-0247	13:05	<20	<20	--	<0.06	0.12 d	2.1
06/03/02	72-0279	08:50	<20	<20	<20	--	--	--
06/04/02	72-0310	15:46	--	--	--	<0.02	0.12	3.1
07/08/02	72-0378	08:30	6	6	--	--	--	--
07/09/02	72-0406	12:40	--	--	--	0.18	## bd	2.5
08/05/02	72-0474	08:44	6	<6	--	--	--	--
08/06/02	72-0504	16:14	--	--	--	0.34	0.17	5.1
09/09/02	72-0567	08:46	6 e	<20 e	--	--	--	--
09/10/02	72-0597	15:22	--	--	--	0.08	0.11	6.6

STOP RIVER (SARIS: 7239925)
Unique ID: W1151, Station: SR03, Mile Point: 2.065
Description: Noon Hill Road, Medfield.

Date	OWMID	Time (24hr)	Fecal Coliform (cfu/100ml)	*E. coli* (cfu/100ml)	*Enterococcus* (cfu/100ml)	NH3-N (mg/L)	TP (mg/L)	TSS (mg/L)
04/29/02	72-0245	12:37	--	--	--	<0.06	0.10 d	6.3
06/04/02	72-0312	16:35	--	--	--	<0.02	0.14	10
07/08/02	72-0394	08:43	97 e	160 e	--	--	--	--
07/09/02	72-0408	13:08	--	--	--	<0.06	## bd	4.4
08/05/02	72-0475	09:00	120	97	--	--	--	--
08/05/02	72-0476	09:00	110	97	--	--	--	--
08/06/02	72-0506	16:45	--	--	--	<0.02	0.10	2.4 d
08/06/02	72-0507	16:45	--	--	--	<0.06	0.11	4.7 d
09/09/02	72-0568	08:58	130	100	--	--	--	--
09/10/02	72-0599	15:43	--	--	--	<0.06	0.10	8.4

BOGASTOW BROOK (SARIS: 7239775)
Unique ID: W0423, Station: BB08, Mile Point: 1.883
Description: at Orchard Street below Bogastow Pond in the northern most outlet, Millis.

Date	OWMID	Time (24hr)	Fecal Coliform (cfu/100ml)	*E. coli* (cfu/100ml)	*Enterococcus* (cfu/100ml)	NH3-N (mg/L)	TP (mg/L)	TSS (mg/L)
04/29/02	72-0215	14:05	--	--	--	<0.06	0.043	1.8
06/04/02	72-0316	17:40	--	--	--	<0.06	0.089	2.2
07/09/02	72-0412	13:55	--	--	--	<0.06	## bd	9.9
08/06/02	72-0512	17:49	--	--	--	<0.02	0.066	3.2
09/10/02	72-0603	16:25	--	--	--	<0.02	0.056	2.6

FULLER BROOK (SARIS: 7239625)
Unique ID: W0409, Station: FB01, Mile Point: 0.302
Description: Dover Road, Wellesley.

Date	OWMID	Time (24hr)	Fecal Coliform (cfu/100ml)	*E. coli* (cfu/100ml)	*Enterococcus* (cfu/100ml)	NH3-N (mg/L)	TP (mg/L)	TSS (mg/L)
04/29/02	72-0249	11:05	370	59	--	--	--	--
06/03/02	72-0291	10:34	700 e	840 e	1200	--	--	--
07/08/02	72-0392	10:15	4400	1800	--	--	--	--
08/05/02	72-0481	10:20	2400	1800	--	--	--	--
09/09/02	72-0572	10:25	## j	## j	--	--	--	--

Table 4 Continued. MassDEP DWM 2002 Charles River Watershed Bacteria, Nutrient and Total Suspended Solids Data.

POWISSETT BROOK (SARIS: 7239525)
Unique ID: W0407, Station: PB01, Mile Point: 0.658
Description: downstream at Wilsondale Street, Dover.

Date	OWMID	Time (24hr)	Fecal Coliform (cfu/100ml)	*E. coli* (cfu/100ml)	*Enterococcus* (cfu/100ml)	NH3-N (mg/L)	TP (mg/L)	TSS (mg/L)
06/03/02	72-0281	10:25	78 e	120 e	<20	--	--	--
06/03/02	72-0293	10:25	78	78	20	--	--	--
07/08/02	72-0380	09:30	32	<6	--	--	--	--
08/05/02	72-0479	09:46	6 e	19 e	--	--	--	--

UNNAMED TRIBUTARY
Unique ID: W1161, Station: W1161, Mile Point: 0.595
Description: unnamed tributary to the Charles River, east of Powisset Brook on Wilsondale Street, Dover.

Date	OWMID	Time (24hr)	Fecal Coliform (cfu/100ml)	*E. coli* (cfu/100ml)	*Enterococcus* (cfu/100ml)	NH3-N (mg/L)	TP (mg/L)	TSS (mg/L)
04/29/02	72-0238	10:12	600 e	620 e	--	--	--	--

ROCK MEADOW BROOK (SARIS: 7239500)
Unique ID: W1155, Station: RM01A, Mile Point: 0.376
Description: approximately 2300 feet downstream of Westfield Street, Dedham (upstream of golf course impoundment).

Date	OWMID	Time (24hr)	Fecal Coliform (cfu/100ml)	*E. coli* (cfu/100ml)	*Enterococcus* (cfu/100ml)	NH3-N (mg/L)	TP (mg/L)	TSS (mg/L)
04/29/02	72-0368	09:50	98	20	--	<0.06	0.16 d	33
06/03/02	72-0280	10:03	<20 e	39 e	370	--	--	--
06/04/02	72-0341	12:00	--	--	--	<0.06	0.034	1.3
07/08/02	72-0379	09:15	45	19	--	--	--	--
07/11/02	72-0434	05:20	--	--	--	<0.02	0.07	2.6
08/05/02	72-0478	09:33	140	100	--	--	--	--
08/06/02	72-0532	16:55	--	--	--	<0.06	0.13 j	## d
09/09/02	72-0569	09:34	310	140	--	--	--	--
09/10/02	72-0621	17:15	--	--	--	<0.06	0.17	20

SAWMILL BROOK (SARIS: 7239400)
Unique ID: W0404, Station: SB02, Mile Point: 1.423
Description: Saint Josephs Cemetery, West Roxbury, Boston (approximately 860 feet upstream of Baker Street, directly upstream of Boston Water and Sewer Commission outfall #12B124).

Date	OWMID	Time (24hr)	Fecal Coliform (cfu/100ml)	*E. coli* (cfu/100ml)	*Enterococcus* (cfu/100ml)	NH3-N (mg/L)	TP (mg/L)	TSS (mg/L)
04/29/02	72-0235	12:36	520	480	--	--	--	--
06/03/02	72-0290	09:56	820 e	960 e	1800	--	--	--
07/08/02	72-0391	09:45	570	420	--	--	--	--
08/05/02	72-0492	09:55	## m	## m	--	--	--	--
09/09/02	72-0583	10:20	390	320	--	--	--	--

Table 4 Continued. MassDEP DWM 2002 Charles River Watershed Bacteria, Nutrient and Total Suspended Solids Data.

SAWMILL BROOK (SARIS: 7239400)
Unique ID: W0402, Station: SB01, Mile Point: 1.286
Description: Saint Josephs Cemetery, West Roxbury, Boston (approximately 140 feet upstream of Baker Street)

Date	OWMID	Time (24hr)	Fecal Coliform (cfu/100ml)	*E. coli* (cfu/100ml)	*Enterococcus* (cfu/100ml)	NH3-N (mg/L)	TP (mg/L)	TSS (mg/L)
04/29/02	72-0233	12:15	780	270 d	--	0.09	0.068	1.5
04/29/02	72-0236	12:15	760	700 d	--	0.08	0.066	1.7
06/03/02	72-0289	09:50	1400	1000	720	--	--	--
06/04/02	72-0334	16:53	--	--	--	0.16	0.11	<1.0
07/08/02	72-0388	09:30	2300	2200	--	--	--	--
07/08/02	72-0389	09:30	3200	2000	--	--	--	--
07/10/02	72-0430	13:07	--	--	--	0.11	0.19	3.6
07/10/02	72-0431	13:07	--	--	--	0.11	0.19	3.4
08/05/02	72-0491	09:45	## m	## m	--	--	--	--
08/06/02	72-0530	16:18	--	--	--	0.66	0.14 j	## d
09/09/02	72-0582	10:15	4000	1700	--	--	--	--
09/10/02	72-0619	16:18	--	--	--	0.81	0.18	2.3

SOUTH MEADOW BROOK (SARIS: 7239375)
Unique ID: W1397, Station: SM01B, Mile Point: 0.559
Description: approximately 475 feet downstream of Needham Street, Newton (upstream of stormdrain on right bank).

Date	OWMID	Time (24hr)	Fecal Coliform (cfu/100ml)	*E. coli* (cfu/100ml)	*Enterococcus* (cfu/100ml)	NH3-N (mg/L)	TP (mg/L)	TSS (mg/L)
04/29/02	72-0231	11:45	680	120	--	<0.02	0.041	1.1

SOUTH MEADOW BROOK (SARIS: 7239375)
Unique ID: W0399, Station: SM01, Mile Point: 0.543
Description: approximately 575 feet downstream of Needham Street, Newton (downstream of stormdrain on right bank).

Date	OWMID	Time (24hr)	Fecal Coliform (cfu/100ml)	*E. coli* (cfu/100ml)	*Enterococcus* (cfu/100ml)	NH3-N (mg/L)	TP (mg/L)	TSS (mg/L)
06/03/02	72-0288	09:30	1700 e	5000 e	2400	--	--	--
06/03/02	72-0295	09:30	1900 e	5000 e	1900	--	--	--
06/04/02	72-0330	16:25	--	--	--	0.59	0.075	4.1
06/04/02	72-0331	16:25	--	--	--	0.58	0.077	4.5
07/08/02	72-0387	09:11	4200	3200	--	--	--	--
07/10/02	72-0428	12:42	--	--	--	0.20	0.11	2.0
08/05/02	72-0490	09:25	2000	830	--	--	--	--
08/06/02	72-0528	15:55	--	--	--	0.21	0.083	## d
09/09/02	72-0581	10:00	3200	1000	--	--	--	--
09/10/02	72-0617	15:51	--	--	--	0.21	0.092	3.0

Table 4 Continued. MassDEP DWM 2002 Charles River Watershed Bacteria, Nutrient and Total Suspended Solids Data.

ROSEMARY BROOK (SARIS: 7239325)
Unique ID: W1156, Station: RB02, Mile Point: 0.097
Description: Barton Road, Wellesley.

Date	OWMID	Time (24hr)	Fecal Coliform (cfu/100ml)	*E. coli* (cfu/100ml)	*Enterococcus* (cfu/100ml)	NH3-N (mg/L)	TP (mg/L)	TSS (mg/L)
04/29/02	72-0229	11:25	59	<20	--	<0.02	0.041	3.0
06/03/02	72-0287	09:11	20 e	39 e	59	--	--	--
06/04/02	72-0328	15:55	--	--	--	<0.06	0.084	1.3
07/08/02	72-0386	08:58	230	200	--	--	--	--
07/10/02	72-0426	12:06	--	--	--	0.27	0.12	3.5
08/05/02	72-0487	09:10	120	97	--	--	--	--
08/05/02	72-0488	09:10	110	97	--	--	--	--
08/06/02	72-0524	15:20	--	--	--	0.08 d	0.069	## d
08/06/02	72-0525	15:20	--	--	--	<0.06 d	0.080	## d
09/09/02	72-0580	09:35	450 e	540 e	--	--	--	--
09/10/02	72-0615	15:15	--	--	--	<0.02	0.078	16

STONY BROOK (SARIS: 7239200)
Unique ID: W1157, Station: ST00, Mile Point: 0.084
Description: railroad tracks near Sibley Road, Weston/Waltham.

Date	OWMID	Time (24hr)	Fecal Coliform (cfu/100ml)	*E. coli* (cfu/100ml)	*Enterococcus* (cfu/100ml)	NH3-N (mg/L)	TP (mg/L)	TSS (mg/L)
04/29/02	72-0219	08:50	39	39	--	<0.02	0.023	1.3
06/03/02	72-0282	07:36	160 h	140 h	120 h	--	--	--
06/04/02	72-0320	13:28	--	--	--	<0.06	0.029	2.4
07/08/02	72-0381	07:40	230	210	--	--	--	--
07/10/02	72-0418	10:35	--	--	--	<0.02	0.036	4.4
08/05/02	72-0482	07:35	150	140	--	--	--	--
08/06/02	72-0516	12:55	--	--	--	<0.02	0.022	## d
09/09/02	72-0573	07:50	110	60	--	--	--	--
09/10/02	72-0607	13:02	--	--	--	<0.02	0.027	<1.0

BEAVER BROOK (SARIS: 7239125)
Unique ID: W1143, Station: BE03, Mile Point: 3.026
Description: at inlet to Mill Pond, Waltham/Belmont.

Date	OWMID	Time (24hr)	Fecal Coliform (cfu/100ml)	*E. coli* (cfu/100ml)	*Enterococcus* (cfu/100ml)	NH3-N (mg/L)	TP (mg/L)	TSS (mg/L)
04/29/02	72-0221	09:30	260	130	--	0.06	0.049	3.8
06/03/02	72-0283	08:01	310	240	270	--	--	--
06/04/02	72-0322	14:14	--	--	--	0.07	0.081	6.3
07/08/02	72-0382	08:08	580	560	--	--	--	--
07/10/02	72-0420	11:04	--	--	--	0.14	0.098	1.9
08/05/02	72-0483	08:05	930	800	--	--	--	--
08/06/02	72-0518	13:33	--	--	--	0.07	0.074	## d
09/09/02	72-0574	08:16	1100 e	1200 e	--	--	--	--
09/10/02	72-0609	13:50	--	--	--	<0.06	0.046	14

Table 4 Continued. MassDEP DWM 2002 Charles River Watershed Bacteria, Nutrient and Total Suspended Solids Data.

BEAVER BROOK (SARIS: 7239125)
Unique ID: W1144, Station: BE02, Mile Point: 1.561
Description: Beaver Street, Waltham (downstream of Clematis Brook confluence).

Date	OWMID	Time (24hr)	Fecal Coliform (cfu/100ml)	*E. coli* (cfu/100ml)	*Enterococcus* (cfu/100ml)	NH3-N (mg/L)	TP (mg/L)	TSS (mg/L)
04/29/02	72-0223	09:54	250	78	--	--	--	--
06/03/02	72-0284	08:16	290 e	460 e	190	--	--	--
07/08/02	72-0383	08:20	630	460	--	--	--	--
08/05/02	72-0484	08:25	12000	520	--	--	--	--
09/09/02	72-0575	08:25	1800 e	1900 e	--	--	--	--
09/09/02	72-0576	08:25	1200 e	1600 e	--	--	--	--

CHEESE CAKE BROOK (SARIS: 7239100)
Unique ID: W1160, Station: CB03, Mile Point: 0.866
Description: approximately 160 feet upstream Route 16, Newton.

Date	OWMID	Time (24hr)	Fecal Coliform (cfu/100ml)	*E. coli* (cfu/100ml)	*Enterococcus* (cfu/100ml)	NH3-N (mg/L)	TP (mg/L)	TSS (mg/L)
06/03/02	72-0286	08:44	400 e	460 e	440	--	--	--
07/08/02	72-0385	08:40	1200	720	--	--	--	--
08/05/02	72-0486	08:50	1600	480	--	--	--	--
09/09/02	72-0579	09:00	410	160	--	--	--	--

CHEESE CAKE BROOK (SARIS: 7239100)
Unique ID: W1162, Station: CB03A, Mile Point: 0.828
Description: Route 16, Newton (downstream of stormdrain pipe).

Date	OWMID	Time (24hr)	Fecal Coliform (cfu/100ml)	*E. coli* (cfu/100ml)	*Enterococcus* (cfu/100ml)	NH3-N (mg/L)	TP (mg/L)	TSS (mg/L)
04/29/02	72-0226	10:25	350	20	--	--	--	--

CHEESE CAKE BROOK (SARIS: 7239100)
Unique ID: W0386, Station: CB01, Mile Point: 0.037
Description: east of Albemarle Road, below channelized walls, upstream of confluence with Charles River, Newton.

Date	OWMID	Time (24hr)	Fecal Coliform (cfu/100ml)	*E. coli* (cfu/100ml)	*Enterococcus* (cfu/100ml)	NH3-N (mg/L)	TP (mg/L)	TSS (mg/L)
04/29/02	72-0224	10:05	520	350	--	<0.06	0.026	<1.0
06/03/02	72-0285	08:32	620	250	200	--	--	--
06/04/02	72-0324	15:00	--	--	--	0.06	0.061	1.4
07/08/02	72-0384	08:30	190	160	--	--	--	--
07/10/02	72-0422	11:24	--	--	--	<0.02	0.068	1.5
08/05/02	72-0485	08:35	890	520	--	--	--	--
08/06/02	72-0520	14:25	--	--	--	<0.06	0.020	## d
09/09/02	72-0578	08:45	210	180	--	--	--	--
09/10/02	72-0611	14:15	--	--	--	<0.06	0.036	5.8

Table 5. MassDEP DWM 2002 Charles River Watershed Ambient Field Blanks.

Date	OWMID	QAQC	Time (24hr)	Fecal Coliform (cfu/100ml)	*E. coli* (cfu/100ml)	*Enterococcus* (cfu/100ml)	NH3-N (mg/L)	TP (mg/L)	TSS (mg/L)
04/29/02	72-0204	Blank	10:35j	<20	<20	--	<0.06	<0.005	<1.0
04/29/02	72-0237	Blank	12:10j	<20	<20	--	<0.02	<0.005	<1.0
04/29/02	72-0242	Blank	11:30j	<20	<20	--	<0.02	<0.005 d	<1.0
06/03/02	72-0294	Blank	10:25j	<20	<20	<20	--	--	--
06/03/02	72-0296	Blank	09:30j	<20	<20	<20	--	--	--
06/04/02	72-0301	Blank	13:08j	--	--	--	<0.02	<0.005	<1.0
06/04/02	72-0332	Blank	16:28j	--	--	--	<0.06	<0.005	<1.0
07/08/02	72-0375	Blank	07:30j	<6	<6	--	--	--	--
07/08/02	72-0390	Blank	09:30j	<6	<6	--	--	--	--
07/09/02	72-0416	Blank	14:24j	--	--	--	<0.02	[0.07]bd	<1.0
07/10/02	72-0432	Blank	13:07j	--	--	--	<0.02	<0.005	<1.0
08/05/02	72-0477	Blank	09:00j	<6	<6	--	--	--	--
08/05/02	72-0489	Blank	09:10j	<6	<6	--	--	--	--
08/06/02	72-0508	Blank	16:45j	--	--	--	<0.02	<0.005	<1.0
08/06/02	72-0526	Blank	15:20j	--	--	--	<0.02	<0.005	[<1.0] d
09/09/02	72-0565	Blank	07:58j	<6 e	<20 e	--	--	--	--
09/09/02	72-0577	Blank	08:25j	<5 e	<20 e	--	--	--	--
09/10/02	72-0593	Blank	14:34j	--	--	--	<0.02	<0.005	<1.0
09/10/02	72-0628	Blank	18:40j	--	--	--	<0.02	<0.005	<1.0

Table 6. Mass DEP DWM 2002 Charles River Watershed Field Duplicate Results.

CHARLES RIVER (Saris: 7239050)
Unique ID: W1134, Station: CR72.1, Mile Point: 72.089
Description: west of Route 85, approximately 100 feet from oultet of Wildcat Pond, Milford

Date	OWMID	QAQC	Time (24hr)	Log10 Fecal Coliform (cfu/100ml)	Log10 *E. coli* (cfu/100ml)	Log10 *Enterococcus* (cfu/100ml)	NH3-N (mg/L)	TP (mg/L)	TSS (mg/L)
04/29/02	72-0202	72-0203	10:35	1.301	1.301	--	<0.06	0.024 d	<1.0
04/29/02	72-0203	72-0202	10:35	1.301	1.301	--	<0.02	0.017 d	<1.0
Relative Percent Difference				*0.0%*	*0.0%*	--	*100.0%*	*34.1%*	*0.0%*

CHARLES RIVER (Saris: 7239050)
Unique ID: W0414, Station: CR03, Mile Point: 54.677
Description: Walker Street, Medway (near USGS flow gaging station #01103280) (upstream of Charles River Pollution Control District (MA0102598) discharge)

Date	OWMID	QAQC	Time (24hr)	Log10 Fecal Coliform (cfu/100ml)	Log10 *E. coli* (cfu/100ml)	Log10 *Enterococcus* (cfu/100ml)	NH3-N (mg/L)	TP (mg/L)	TSS (mg/L)
09/10/02	72-0591	72-0592	14:33	--	--	--	<0.02	0.031	1.3
09/10/02	72-0592	72-0591	14:33	--	--	--	<0.02	0.026	<1.0
Relative Percent Difference				--	--	--	*0.0%*	*17.5%*	*26.1%*

CHARLES RIVER (Saris: 7239050)
Unique ID: W1138, Station: CR36.3, Mile Point: 36.334
Description: approximately 1000 feet upstream of Davis Brook confluence, Natick (informal boat launch off Route 16)

Date	OWMID	QAQC	Time (24hr)	Log10 Fecal Coliform (cfu/100ml)	Log10 *E. coli* (cfu/100ml)	Log10 *Enterococcus* (cfu/100ml)	NH3-N (mg/L)	TP (mg/L)	TSS (mg/L)
04/29/02	72-0239	72-0241	11:30	1.771	1.301	--	<0.06	## d	2.1
04/29/02	72-0241	72-0239	11:30	1.591	1.301	--	<0.06	## d	2.1
Relative Percent Difference				*10.7%*	*0.0%*	--	*0.0%*	--	*0.0%*
09/10/02	72-0626	72-0627	18:40	--	--	--	<0.06	0.037 d	4.3
09/10/02	72-0627	72-0626	18:40	--	--	--	<0.06	0.054 d	4.0
Relative Percent Difference				--	--	--	*0.0%*	*37.4%*	*7.2%*

BEAVER BROOK (Saris: 7239125)
Unique ID: W1144, Station: BE02, Mile Point: 1.561
Description: Beaver Street, Waltham (downstream of Clematis Brook confluence)

Date	OWMID	QAQC	Time (24hr)	Log10 Fecal Coliform (cfu/100ml)	Log10 *E. coli* (cfu/100ml)	Log10 *Enterococcus* (cfu/100ml)	NH3-N (mg/L)	TP (mg/L)	TSS (mg/L)
09/09/02	72-0575	72-0576	08:25	3.255 e	3.279 e	--	--	--	--
09/09/02	72-0576	72-0575	08:25	3.079 e	3.204 e	--	--	--	--
Relative Percent Difference				*5.6%*	*2.3%*	--	--	--	--

ROSEMARY BROOK (Saris: 7239325)
Unique ID: W1156, Station: RB02, Mile Point: 0.097
Description: Barton Road, Wellesley

Date	OWMID	QAQC	Time (24hr)	Log10 Fecal Coliform (cfu/100ml)	Log10 *E. coli* (cfu/100ml)	Log10 *Enterococcus* (cfu/100ml)	NH3-N (mg/L)	TP (mg/L)	TSS (mg/L)
08/05/02	72-0487	72-0488	09:10	2.079	1.987	--	--	--	--
08/05/02	72-0488	72-0487	09:10	2.041	1.987	--	--	--	--
Relative Percent Difference				*1.8%*	*0.0%*	--	--	--	--
08/06/02	72-0524	72-0525	15:20	--	--	--	0.08 d	0.069	## d
08/06/02	72-0525	72-0524	15:20	--	--	--	<0.06 d	0.080	## d
Relative Percent Difference				--	--	--	*28.6%*	*14.8%*	--

SOUTH MEADOW BROOK (Saris: 7239375)
Unique ID: W0399, Station: SM01, Mile Point: 0.543
Description: approximately 575 feet downstream of Needham Street, Newton (downstream of stormdrain on right bank)

Date	OWMID	QAQC	Time (24hr)	Log10 Fecal Coliform (cfu/100ml)	Log10 *E. coli* (cfu/100ml)	Log10 *Enterococcus* (cfu/100ml)	NH3-N (mg/L)	TP (mg/L)	TSS (mg/L)
06/03/02	72-0288	72-0295	09:30	3.230 e	3.699 e	3.380	--	--	--
06/03/02	72-0295	72-0288	09:30	3.279 e	3.699 e	3.279	--	--	--
Relative Percent Difference				*1.5%*	*0.0%*	*3.0%*	--	--	--
06/04/02	72-0330	72-0331	16:25	--	--	--	0.59	0.075	4.1
06/04/02	72-0331	72-0330	16:25	--	--	--	0.58	0.077	4.5
Relative Percent Difference				--	--	--	*1.7%*	*2.6%*	*9.3%*

Table 6 Continued. MassDEP DWM 2002 Charles River Watershed Field Duplicate Results.

SAWMILL BROOK (Saris: 7239400)
Unique ID: W0402, Station: SB01, Mile Point: 1.286
Description: Saint Josephs Cemetery, West Roxbury, Boston (approximately 140 feet upstream of Baker Street)

Date	OWMID	QAQC	Time (24hr)	Log10 Fecal Coliform (cfu/100ml)	Log10 *E. coli* (cfu/100ml)	Log10 *Enterococcus* (cfu/100ml)	NH3-N (mg/L)	TP (mg/L)	TSS (mg/L)
04/29/02	72-0233	72-0236	12:15	2.892	2.431 d	--	0.09	0.068	1.5
04/29/02	72-0236	72-0233	12:15	2.881	2.845 d	--	0.08	0.066	1.7
Relative Percent Difference				*0.4%*	*15.7%*	--	*11.8%*	*3.0%*	*12.5%*
07/08/02	72-0388	72-0389	09:30	3.362	3.342	--	--	--	--
07/08/02	72-0389	72-0388	09:30	3.505	3.301	--	--	--	--
Relative Percent Difference				*4.2%*	*1.2%*	--	--	--	--
07/10/02	72-0430	72-0431	13:07	--	--	--	0.11	0.19	3.6
07/10/02	72-0431	72-0430	13:07	--	--	--	0.11	0.19	3.4
Relative Percent Difference				--	--	--	*0.0%*	*0.0%*	*5.7%*

POWISSETT BROOK (Saris: 7239525)
Unique ID: W0407, Station: PB01, Mile Point: 0.658
Description: downstream at Wilsondale Street, Dover.

Date	OWMID	QAQC	Time (24hr)	Log10 Fecal Coliform (cfu/100ml)	Log10 *E. coli* (cfu/100ml)	Log10 *Enterococcus* (cfu/100ml)	NH3-N (mg/L)	TP (mg/L)	TSS (mg/L)
06/03/02	72-0281	72-0293	10:25	1.892 e	2.079 e	1.301	--	--	--
06/03/02	72-0293	72-0281	10:25	1.892	1.892	1.301	--	--	--
Relative Percent Difference				*0.0%*	*9.4%*	*0.0%*	--	--	--

STOP RIVER (Saris: 7239925)
Unique ID: W1151, Station: SR03, Mile Point: 2.065
Description: Noon Hill Road, Medfield

Date	OWMID	QAQC	Time (24hr)	Log10 Fecal Coliform (cfu/100ml)	Log10 *E. coli* (cfu/100ml)	Log10 *Enterococcus* (cfu/100ml)	NH3-N (mg/L)	TP (mg/L)	TSS (mg/L)
08/05/02	72-0475	72-0476	09:00	2.079	1.987	--	--	--	--
08/05/02	72-0476	72-0475	09:00	2.041	1.987	--	--	--	--
Relative Percent Difference				*1.8%*	*0.0%*	--	--	--	--
08/06/02	72-0506	72-0507	16:45	--	--	--	<0.02	0.10	2.4 d
08/06/02	72-0507	72-0506	16:45	--	--	--	<0.06	0.11	4.7 d
Relative Percent Difference				--	--	--	*100.0%*	*9.5%*	*64.8%*

CHICKEN BROOK (Saris: 7240175)
Unique ID: W1159, Station: CK05, Mile Point: 4.888
Description: Washington Street, Holliston

Date	OWMID	QAQC	Time (24hr)	Log10 Fecal Coliform (cfu/100ml)	Log10 *E. coli* (cfu/100ml)	Log10 *Enterococcus* (cfu/100ml)	NH3-N (mg/L)	TP (mg/L)	TSS (mg/L)
07/08/02	72-0373	72-0374	07:30	1.987 e	2.041 e	--	--	--	--
07/08/02	72-0374	72-0373	07:30	2.176	2.176	--	--	--	--
Relative Percent Difference				*9.1%*	*6.4%*	--	--	--	--
07/09/02	72-0414	72-0415	14:24	--	--	--	<0.06	## bd	1.2
07/09/02	72-0415	72-0414	14:24	--	--	--	<0.02	## bd	<1.0
Relative Percent Difference				--	--	--	*100.0%*	--	*18.2%*

Table 6 Continued. MassDEP DWM 2002 Charles River Watershed Field Duplicate Results.

BEAVER BROOK (Saris: 7240350)
Unique ID: W1142, Station: BV01, Mile Point: 0.137
Description: approximately 725 feet upstream of confluence with Charles River, Bellingham (upstream of footpath off Taunton Street)

Date	OWMID	QAQC	Time (24hr)	Log10 Fecal Coliform (cfu/100ml)	Log10 *E. coli* (cfu/100ml)	Log10 *Enterococcus* (cfu/100ml)	NH3-N (mg/L)	TP (mg/L)	TSS (mg/L)
06/04/02	72-0299	72-0300	13:10	--	--	--	0.06	0.021	1.8
06/04/02	72-0300	72-0299	13:10	--	--	--	0.08	0.026	1.6
Relative Percent Difference				--	--	--	*28.6%*	*21.3%*	*11.8%*
09/09/02	72-0563	72-0564	07:59	2.568	2.301	--	--	--	--
09/09/02	72-0564	72-0563	07:59	2.623	2.342	--	--	--	--
Relative Percent Difference				*2.1%*	*1.8%*	--	--	--	--

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