

**Summary of CSO Receiving Water  
Quality Monitoring in  
Upper Mystic River/Alewife Brook  
and Charles River, 2017**

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Massachusetts Water Resources Authority

Environmental Quality Department  
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# 1 Introduction

This report summarizes data collected as part of the Massachusetts Water Resources Authority (MWRA) combined sewer overflow (CSO) receiving water monitoring program, and is produced in accordance with the variance for CSO discharges to Lower Charles River/Charles Basin and the variance for CSO discharges to the Alewife Brook/Upper Mystic River which were initially issued by the Massachusetts Department of Environmental Protection (MADEP) in October 1998 and March 1999 respectively. In August 2016, MADEP extended the variances through August 31, 2019. This monitoring summary is submitted pursuant to the variance conditions and provides an assessment of water quality in the Charles River, Upper Mystic River, and Alewife Brook, which were affected by some of the 35 CSO projects in MWRA's Long-Term CSO Control Plan (LTCP), and are affected by any remaining CSO discharges.

Receiving water quality results in the report reflect the changes in the monitoring program made by MWRA in 2016 and 2017; in short, a switch to more storm based sampling with the addition of weekend sampling to close temporal data gaps. Sections 2.1.1 and 2.1.2 describe this in more detail. An important consideration when looking at the data – especially data that is not aggregated by rainfall condition (e.g., Tables 3-6 and 4-6) – is that considerably more post-storm, wet weather data was gathered in 2017 than previously. This is reflected in, especially, Table 3-4, which breaks down visits to the sampling stations in the Charles River by rainfall condition. More wet weather data means more samples with higher counts of indicator bacteria, which can skew some results. Where MWRA believes that the more extensive wet weather sampling has biased the data, it is noted. Finally, where the data is broken down by rainfall category, most rain data now comes from more local rain gauges rather than the Logan Airport gauge. This will hopefully provide more spatially accurate rainfall data, rather than using a single rain gauge that can be several miles distant from some of the sampling locations.

As part of the Boston Harbor Case (U.S. v. M.D.C, et al., No. 85-0489-RGS), MWRA developed and implemented its LTCP, which addresses CSO discharges from CSO outfalls hydraulically related to the MWRA sewer system and member community sewer systems, consisting of 35 CSO control projects, the last of which was completed in December 2015. Pursuant to the federal court order in the Boston Harbor Case, MWRA must perform a three-year CSO post-construction monitoring and performance assessment from January 2018 to December 2020 and submit the results to the United States Environmental Protection Agency (EPA) and the MADEP by December 2020. MWRA commenced its three-year CSO post-construction monitoring and performance assessment in November 2017. The goal of the MWRA's three-year CSO post-construction monitoring and performance assessment is to demonstrate that MWRA has achieved compliance with the levels of control (including as to frequency of CSO activation and as to volume of discharge) specified in its LTCP. In 2006, MADEP agreed, as part of the Boston Harbor Case, to issue a series of three-year variance extensions through 2020 with no additional CSO obligations and related construction activities beyond the then-approved LTCP to allow MWRA to complete implementation of its LTCP and three-year CSO post-construction monitoring and performance assessment.

Conditions in the current CSO variance extensions require MWRA to implement the LTCP in compliance with the federal court order in the Boston Harbor Case, require MWRA and the municipalities with CSOs

(Boston, Cambridge, and Somerville<sup>1</sup>) to continue to implement the Nine Minimum Controls of EPA's National CSO Control Policy, and require all of the CSO permittees to report estimated CSO discharge frequencies and volumes from their respective outfalls to these receiving waters on an annual basis. MWRA is also required to continue its receiving water quality monitoring program and submit an annual report to MADEP and EPA assessing the impacts of CSO discharges. This report is submitted pursuant to the latter requirement.

CSO control progress in 2017 as it relates to the Lower Charles River and the Alewife Brook/Upper Mystic River includes the following (note that major construction projects as related to the LTCP were completed in December 2015):

- MWRA revised estimates of deposited sediments in MWRA's hydraulic sewer system model in parts of the Cambridge Branch Sewer in Cambridge and Somerville. The lowered estimates of sediment were based on recent inspections of the sewer. This change in the model reduced model-predicted discharge volumes at the Somerville Marginal CSO Facility.

Since the beginning of MWRA's CSO control planning efforts in the late 1980s, MWRA and the CSO communities have eliminated or virtually eliminated (i.e., achieved 25-year storm level of control) CSO discharges at 40 of the 84 outfalls addressed in the LTCP. The completion of the CAM004 Sewer Separation project in December 2015 closed the last of the 34 outfalls recommended for closure in the LTCP. MWRA and the CSO communities have also greatly reduced CSO discharges at the 45 outfalls that will remain.<sup>2</sup> Along the Charles River, ten CSO outfalls were closed and eight untreated and one treated CSO remain active. Along the Alewife Brook, seven CSO outfalls were closed and six CSOs remain active. Along the Upper Mystic River (Mystic Basin), two CSO outfalls were closed and one treated CSO (MWRA's Somerville Marginal facility) remains active. The Somerville Marginal facility discharges at outfall MWR205 below the Amelia Earhart dam in marine waters when not restricted by the tide. When the tide is high and restricting discharge at MWR205, flow is discharged to the Mystic Basin at outfall MWR205A by the Route 28 bridge. Outfall BOS017 also discharges to marine waters below the dam. MWR205 and BOS017 do not discharge to the variance waters.

Since the early 1990s, major MWRA system improvements, such as the upgrade of the Deer Island Treatment Plant, transport system, and the completed CSO projects, have reduced the frequency and volume of CSO discharges and have resulted in increased treatment of remaining discharges. The LTCP is predicted to reduce region-wide CSO discharge volume in a Typical Year<sup>3</sup> from 3.3 billion gallons in 1988 to 0.404 billion gallons, an 88% reduction, with 94% of the remaining discharge volume receiving treatment at MWRA's four CSO treatment facilities. Figure 1-1 shows the estimated CSO flow reduction system-wide

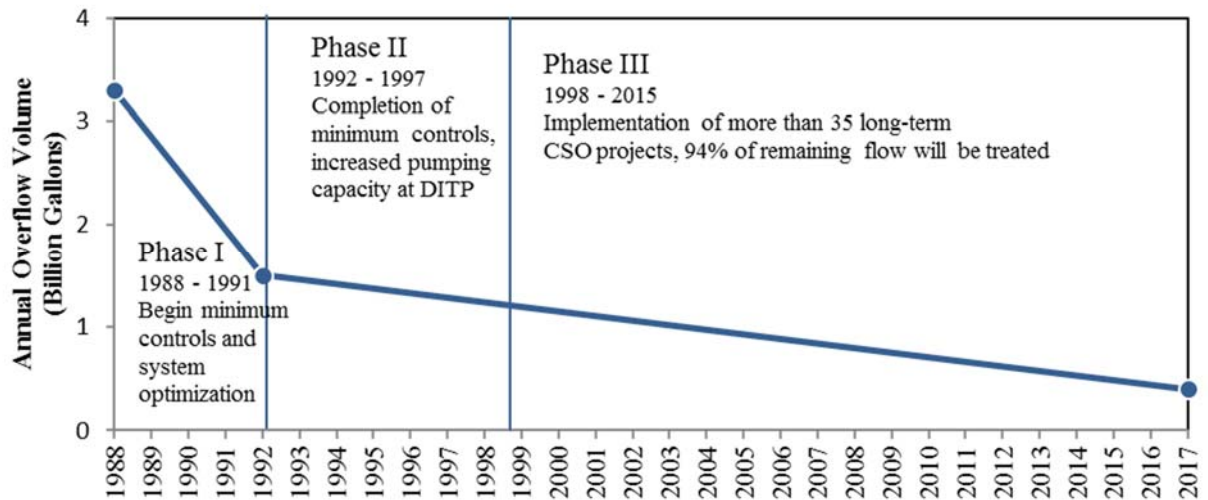
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<sup>1</sup> Chelsea also has community CSOs, but they do not discharge into waters covered by CSO variances.

<sup>2</sup> In addition to the 34 outfalls recommended for closure in the LTCP, Boston Water and Sewer Commission (BWSC) has closed outfalls BOS006 and BOS007 in East Boston and outfall BOS072 in the Fort Point Channel; the City of Cambridge has, since 2007, temporarily closed outfalls CAM009 and CAM011 along the Charles River pending the results of a long-term hydraulic assessment; and the City of Chelsea closed Outfall CHE002.

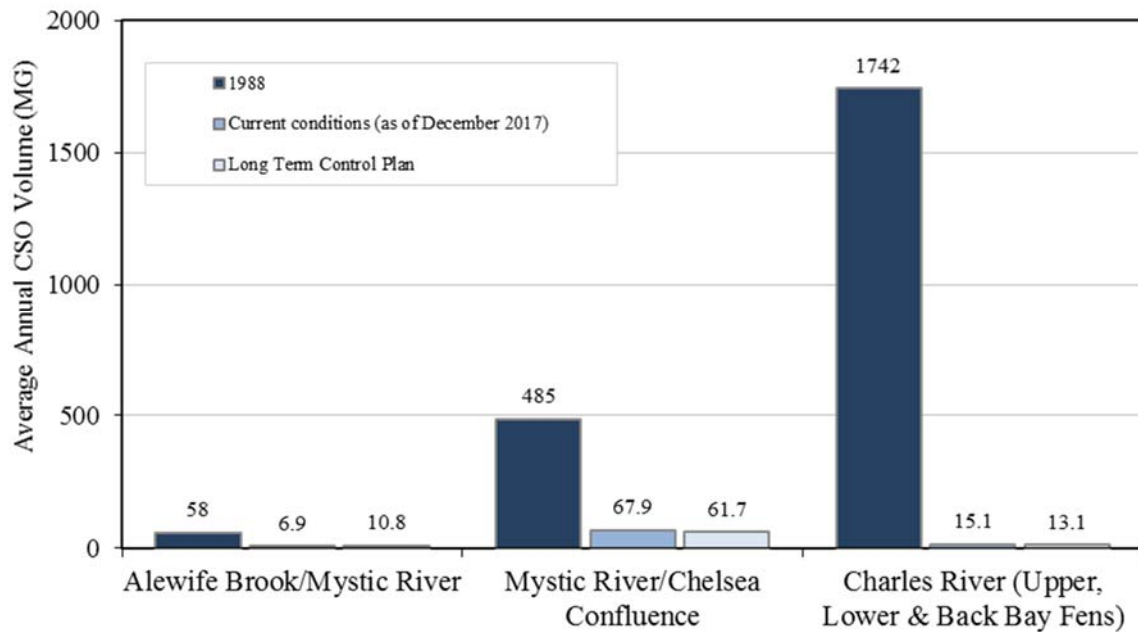
<sup>3</sup> Typical Year rainfall was developed by MWRA in 1992 using a 40-year rainfall record and was approved by EPA and DEP as a basis for measuring the performance of CSO control alternatives and the water quality impacts of remaining CSO discharges. Level of CSO control in the Typical Year is a key performance objective of the LTCP.

since 1988, and Figure 1-2 shows the CSO flow reduction by receiving water. For purposes of this report, receiving water quality data for the past 5 years (2013-2017) is considered representative of current conditions (noting however that some projects have been underway and completed during this period).



**Figure 1-1. Estimated CSO flow reductions, 1988 – 2017.**

Source: Updated from MWRA (2016)



**Figure 1-2. CSO Typical Year Discharge Volume Estimates for 1988, Current, and Approved Long Term Control Plan**

Source: Updated from MWRA (2016)

Rainfall volumes for calendar year 2017 at various gauge locations in the MWRA service area and comparison to MWRA’s approved Typical Year appear in Table 1-1. The table summarizes the frequency of

rain events within selected ranges of total rainfall for 2017. 2017 rainfall totals were close to the Typical Year and relatively close to the official average annual rainfall volumes for the Boston area (43 inches). Numbers of storms in the 0.25-0.5 and 0.5-1.0-inch categories were slightly lower compared to the Typical Year, while large storms – those greater than or equal to two inches of rainfall – ranged from two thirds to a third less than the number of large storms in the Typical Year at the rain gauges listed in the table. There were a larger number of small (<0.25 inches) and medium-large (1.0-2.0 inches) storms compared to the Typical Year. (Refer to Tables 3-3 and Table 4-3 for CSO discharge estimates for the Charles and Mystic, respectively.)

**Table 1-1. Comparison of rain event frequency by rainfall volume, 2017 rainfall vs. Typical Year.**

	Total Rainfall (in.)	Total Number of Storms	Number of storms, by rainfall volume				
			<0.25 inches	0.25 – 0.5 inches	0.5 – 1.0 inches	1.0 – 2.0 inches	≥2.0 inches
Typical Year	46.8	93	49	14	16	8	6
2017 Chelsea Creek Headworks (MWRA)	46.31	101	63	11	10	13	4
2017 Ward St. Headworks (MWRA)	44.1	100	58	13	14	12	3
2017 BWSC Charlestown	38.9	95	57	11	14	11	2
2017 BWSC Allston	39.58	95	59	11	11	12	2
2017 Fresh Pond (USGS)	39.52	101	61	14	13	11	2

Source: MWRA (2018)

### 1.1 Overview of the monitoring program

MWRA’s CSO receiving water quality monitoring program has been ongoing since 1989, with most sampling locations continuously monitored since 1991. All harbor and tributary areas affected by CSOs in Boston, Chelsea, Cambridge, and Somerville are included in the monitoring program. For most sampling locations included in this report, at least 20 samples have been collected each year.

### 1.2 Organization and purpose of the report

Chapter 2 presents the materials and methods used in monitoring. Chapters 3 and 4 discuss the results of the CSO receiving water quality monitoring program in the Charles River and Mystic River/Alewife Brook, respectively. Water quality parameters examined for each region include: bacterial indicators (*E. coli*, *Enterococcus*, and fecal coliform), dissolved oxygen, water clarity (Secchi depth, total suspended solids), nutrients (phosphate, ammonium, nitrate/nitrite) and chlorophyll.

The purpose of the report is to summarize 2017 water quality in the Charles River and Alewife Brook/Mystic River. The report compares sampling results to water quality standards, and shows spatial and temporal variations in water quality, and differences between wet and dry weather. For some bacterial and physical parameters, data from the previous five monitoring years are analyzed and compared with the 2017 data.

## 2 Materials and Methods

### 2.1 *Field and laboratory methods*

#### 2.1.1 Selection of sampling locations

Some sampling locations were chosen for their proximity to CSO discharges and others were chosen to provide representative water quality measurements for a given area. Typically, all samples are collected by boat, but beginning in 2017, existing stations that were accessible from the shore were identified so sampling could continue in inclement, non-boating weather. These stations are also used for weekend sampling (see section 2.1.2 below). Complete lists of stations for the Charles River and the Mystic River/Alewife Brook, including maps and descriptions, appear in Figure 3-1 and Table 3-1 (Charles) and Figure 4-1 and Table 4-1 (Mystic/Alewife).

#### 2.1.2 Sampling schedules

At least 20 station visits were made to each location last year, within two separate monitoring projects. Eutrophication monitoring is conducted monthly, year-round, at a subset of river locations, and includes nutrient, chlorophyll, TSS, bacteria, and physical measurements. CSO receiving water monitoring includes bacteria sampling and physical parameter measurements that are collected roughly between April and October. Prior to 2016, this monitoring was conducted in weekly rotations for each region, with efforts made to collect approximately equal numbers of samples in dry, damp, and wet weather conditions. Beginning in the 2016 field season, regions were sampled exclusively in two week rotations, allowing the program to capture data representing the dry weather baseline, wet weather events, and the “recovery” period in the subsequent days after a rain event. Capturing the “recovery” period after storms was given a high priority. The two week rotations are flexible, so they can and are shortened or extended to capture storm events or move to a different region to capture a storm event. In 2017, weekend sampling was added to address the data gap that might occur if a storm, or its recovery period, occurred over a weekend. Weekend sampling occurs only at the shoreline sampling locations, and only near-surface bacteria samples are collected.

#### 2.1.3 Sample collection

At all locations, water samples and water quality measurements were collected near-surface (approximately 0.1 meter below surface). Surface samples were collected by grab into rinsed sample containers. Bottom samples were collected at locations with a water depth greater than 3 meters, using a Kemmerer sampler or alpha bottle at 0.5 meter above the sediment surface. Bottom water quality measurements (physical measurements such as dissolved oxygen, temperature, and salinity) were made at most locations regardless of depth, but some upstream locations are too shallow for separate bottom readings. Separate sampling containers were used for bacteria, nutrient, and TSS analyses.

#### 2.1.4 Field measurements

Field measurements were made with different instruments over the course of the monitoring program. Table 2-1 lists the instruments used and the variables measured.

**Table 2-1. Field measurements.**

Variable	Instruments used
Temperature, conductivity/salinity, dissolved oxygen, turbidity, pH	Hydrolab Datasonde 4 (1997 - 2008) Hydrolab Datasonde 5 (2006 - 2008) YSI 600XL for temperature, conductivity, dissolved oxygen (1999 – 2013) YSI6600, YSI6820 (2009 - present)
Secchi Depth	Wildco 8-inch limnological Secchi disk (upstream of dams) Wildco 8-inch oceanographic Secchi disk (marine waters)

### 2.1.5 Rainfall measurements

Most analyses or narrative text include 15-minute rainfall data from rain gauges throughout the region which may be more local to CSO outfalls and/or monitoring locations: Ward Street (MWRA); Allston and Charlestown (BWSC); and Fresh Pond (US Geological Survey). These data are also stored in the MWRA’s Environmental Monitoring & Mapping System (EM&MS) database. Daily rainfall measurements were taken from the National Weather Service (NWS) rain gauge located at Logan Airport in East Boston, as this was considered the most representative location for the entire monitoring area. Results from this gauge are reported in one-day intervals. Data are downloaded from the NWS website and stored in the EM&MS database.

### 2.1.6 Laboratory analyses

Samples were analyzed at the MWRA Central Laboratory. For enumeration of bacteria, chlorophyll, nutrients, and TSS, MWRA Department of Laboratory Services (DLS) Standard Operating Procedures are followed.

Detailed laboratory methods with quality assurance and quality control procedures are described in the Central Laboratory Quality Management Plan (MWRA 2009) and the DLS Standard Operating Procedures (MWRA various).

Table 2-2 lists the analytes measured and methods used in the monitoring program. MWRA discontinued *E. coli* monitoring at marine locations in 2007 due to methodological concerns with the use of the Colilert method for marine samples, replacing *E. coli* with fecal coliform.

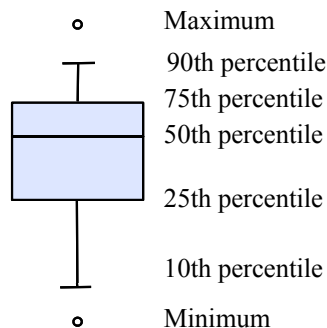
**Table 2-2. Laboratory measurements.**

Analyte	Method
<i>Enterococcus</i>	Standard Methods 9230C 2c, membrane filtration (for samples collected 1996 – 2003) EPA Method 1600 (for samples collected 1999 – 2007) Enterolert (ASTM D-6503-99; for samples collected 2007 – present)
<i>E. coli</i>	Modified EPA 1103.1, membrane filtration (for samples collected 2000 – 2006) Colilert-18 (Standard Methods 9223B; for freshwater samples collected 2007 - present)
Fecal coliform	Standard Methods 9222D, membrane filtration
Total suspended solids	Clesceri et al. (1998, Method 2540D), using nucleopore filters
Total phosphorus	TP and/or TDP: Solarzano and Sharp (1980a); PP: Solarzano and Sharp (1980a), Whatman GF/F
Phosphate	Murphy and Riley (1962), modified as in Clesceri et al (1998, Method 4500-P F) Skalar SAN <sup>plus</sup> autoanalyzer, Whatman GF/F filters
Total Nitrogen	TN and/or TDN: Solarzano and Sharp (1980b), Whatman G/F filters; PN: Perkin Elmer CHN analyzer, Whatman GF/F
Ammonium	Fiore and O'Brien (1962), modified as in Clesceri et al (1998, Method 4500-NH3 H), Skalar SAN <sup>plus</sup> autoanalyzer, Whatman GF/F filters
Nitrate+nitrite	Bendschneider and Robinson (1952), modified as in Clesceri et al (1998, Method 4500- NO3 F), Skalar SAN <sup>plus</sup> autoanalyzer, Whatman GF/F filters
Chlorophyll <i>a</i>	Acid-corrected (Holm-Hansen et al. 1965) as described in US EPA (1992). Trilogy fluorometer, GF/F filters

## 2.2 Data analysis

**Descriptive Analyses.** Indicator bacteria counts are typically log-normally distributed, and therefore a proper measure of central tendency for these data is the geometric mean. Geometric means and their associated 95% confidence intervals were calculated for the measurements made at each station over the sampling period.

Many results are plotted as percentile box plots, as shown in Figure 2-1. These plots present a frequency distribution of a group of measurements. Each box comprises measurements from a single sampling location. Values are shown in Figure 2-1 for the 10<sup>th</sup>, 25<sup>th</sup>, 50<sup>th</sup>, 75<sup>th</sup>, and 90<sup>th</sup> percentiles. Open circles at the top and bottom represent maximum and minimum measurements.



**Figure 2-1. Percentile distributions indicated on percentile box plots**



Box plots display the range and central tendencies of the data allow for easy comparison of the results among stations. The 50<sup>th</sup> percentile (median) is equivalent to the geometric mean, assuming the data are log-normally distributed.

### 2.3 *Water Quality Standards used in this report*

Standards are shown in Table 2-3, and include standards and guidelines from the Massachusetts Department of Environmental Protection (MADEP), Environmental Protection Agency (EPA), Massachusetts Department of Public Health (MADPH), and the Massachusetts Division of Marine Fisheries (MADMF). The MADEP standard for Class SB waters (fishable and swimmable) are based on *E. coli* and/or *Enterococcus* counts for freshwater, and *Enterococcus* counts for marine waters, following a USEPA recommendation for *Enterococcus* in marine waters (USEPA 1986). The MADPH issued regulations for beach management based on the USEPA criteria. MADMF uses fecal coliform to monitor shellfish growing waters. MADPH uses Secchi depth to assess water transparency at public bathing beaches and lakes. There are no public bathing beaches in the Charles or Upper Mystic/Alewife Brook, but the MADPH standard can still serve as a useful benchmark.

**Table 2-3. Water quality standards for Class B and Class SB waters.<sup>1</sup>**

Designated Use	Parameter	Standard
Inland waters (Class B) warm water fishery Massachusetts waters, MADEP	Dissolved Oxygen	≥ 5.0 mg/L
	Temperature	≤ 28.3°C (83°F)
	pH	6.5 to 8.3 S.U.
Coastal/marine waters (Class SB) Massachusetts waters, MADEP	Dissolved Oxygen	≥ 5.0 mg/L
	Temperature	< 26.7°C (80°F)
	pH	6.5 to 8.5 S.U.
Marine and freshwater primary contact recreation (designated swimming area), MADPH, MADEP	<i>Enterococcus</i>	Single sample limit: 61 counts/100 mL (freshwater), 104 counts/100 mL (marine); Geometric mean: 33 counts/100 mL (freshwater), 35 counts/100 mL (marine)
Freshwater primary contact recreation (designated swimming area), MADPH, MADEP	<i>E. coli</i>	Single sample limit: 235 counts/100 mL (freshwater only); geometric mean: 126 counts/100 mL (freshwater only)
Former standard, primary contact recreation, MADEP (pre-2007)	Fecal coliform	Geometric mean: ≤ 200 counts/100 mL, no more than 10% of samples above 400 counts/100 mL
Restricted shellfishing, MADMF	Fecal coliform	Geometric mean: ≤ 88 counts/100 mL, <10% of samples > 260 per 100 mL
Primary contact recreation, MADPH, aesthetics/transparency	Secchi disk depth	≥ 1.2 meters (4 feet) at public bathing beaches and lakes

<sup>1</sup> All receiving water areas discussed in this report are Class B according to MADEP standards current as of December 2013 (except for Mystic River mouth, which is SB<sub>CSO</sub>. SB<sub>CSO</sub> has the same water quality standards as SB except for an allowance for CSO discharges).

**From MADEP 2013:**

**Inland Water Class B:** These waters are designated as a habitat for fish, other aquatic life, and wildlife, including for their reproduction, migration, growth and other critical functions, and for primary and secondary contact recreation. Where designated in 314 CMR 4.06, they shall be suitable as a source of water supply with appropriate treatment (“Treated Water Supply”). They shall be suitable for irrigation and other agricultural uses and for compatible industrial cooling and process uses. These waters shall have consistently good aesthetic value.

**Coastal and Marine Class SB:** These waters are designated as a habitat for fish, other aquatic life, and wildlife, including for their reproduction, migration, growth and other critical functions, and for primary and secondary contact recreation. In certain waters, habitat for fish, other aquatic life and wildlife may include, but is not limited to, seagrass. Where designated in the tables to 314 CMR 4.00 for shellfishing, these waters shall be suitable for shellfish harvesting with depuration (Restricted and Conditionally Restricted Shellfish Areas). These waters shall have consistently good aesthetic value.

## 3 Charles River

### 3.1 *Sampling area*

MWRA's sampling area in the Charles River includes the river segment from the Watertown Dam in Watertown downstream to the New Charles River Dam in Boston, near the river mouth. This area, the "Charles Basin" for purposes of this report, is freshwater and designated Class B with a variance for Combined Sewer Overflows by MADEP (with the variance currently extending to August 31, 2019). The river segment is approximately 10.3 km (8.6 mi) long. The New Charles River Dam and locks limit river flow and tidal exchange at the river mouth.

MWRA monitoring locations are primarily located midstream, bracketing CSO outfalls. Boat-accessible locations were also selected near to or downstream of outfalls: at the Stony Brook outlet and CSO (MWR023), the Faneuil Brook outlet and CSO that has since been closed (BOS032, closed in 1997), and downstream of the Cottage Farm CSO treatment facility outfall diffusers (MWR201). For 2018, a new sampling location (station 210) was added directly downstream of CAM017. Data from this location will appear in the next annual report.

For purposes of this report, MWRA's monitoring area in the lower Charles is divided into three smaller reaches. Sampling locations and CSOs appear in Figure 3-1. Table 3-1 describes the reaches, sampling locations and CSOs within each reach.



**Figure 3-1. Map of MWR Charles River sampling locations.**

**Table 3-1. MWRA monitoring locations, Charles River Basin.**

Reach	Description of Reach	Sampling location	Location Description
Upper Basin (Class B/Variance, warm water fishery)	Watertown Dam in Watertown, downstream to Magazine Beach (near BU Bridge) in Cambridge	012, Watertown	Watertown Dam at footbridge (upstream of all CSOs)
		001, Newton	Downstream of Newton Yacht Club (upstream of all CSOs)*
		144, Allston	Faneuil Brook outlet (at BOS032, closed 11/97)
		002, Allston	Downstream of Beacon St. Bridge (downstream of BOS033, closed 10/96)*
		003, Cambridge	Downstream of Eliot Bridge, Cambridge side (at CAM005)*
		004, Cambridge/Allston	Between River St. and Western Ave. bridges
		005, Cambridge	10 m off of Magazine Beach*
Mid-Basin (Class B/Variance, warm water fishery)	BU Bridge on Boston/Cambridge line to downstream of Longfellow Bridge	006, Cambridge/Boston	BU Bridge, downstream side (downstream of MWR201)
		007, Cambridge	MIT Boathouse, Cambridge side*
		145, Boston	Stony Brook outlet, Boston side (at MWR023)*
		008, Cambridge/Boston	Mass. Ave Bridge, downstream side (downstream of MWR023, MWR018)
		009, Cambridge/Boston	Longfellow Bridge, upstream side (downstream of MWR021, closed 3/00)*
		010, Boston	Longfellow Bridge, downstream side (downstream of MWR022, closed 3/00)
Lower Basin (Class B/Variance, warm water fishery)	Science Museum to North Station railroad bridge, near Charlestown.	166, Boston	Science Museum, upstream of old dam (downstream of all lower basin CSOs)
		011, Boston	Between Science Museum and New Charles River Dam/locks (downstream of all Charles CSOs)

Sampling locations are midstream unless otherwise noted. \* indicates sampling location is also a shoreline sampling location.

### 3.2 Pollution sources

Known CSO sources to the Charles River are shown in Table 3-2; these include nine active CSOs, eight untreated and one treated. MWRA’s Cottage Farm CSO treatment facility, located immediately upstream of the BU Bridge, screens, chlorinates and dechlorinates CSO flow before discharge, and is the only source of treated CSO discharge to the river. (MWRA’s Prison Point CSO facility, located near the Charles River mouth, has its discharge point on the Boston Harbor side of the New Charles River Dam.) With increases in sewer system capacity and removal of large volumes of stormwater from the sewer system with sewer

separation projects, the number of activations at Cottage Farm has decreased over the last two decades. In the late 1990s more than 20 activations annually were common, but in the 2013-2017 period there were only one to three activations annually, with only two activations in 2017. The Stony Brook/Muddy River outlet near Kenmore Square is a source of contaminated brook flow and stormwater flows to the basin area, as well as infrequent CSO discharges. CSO discharge volumes to the Stony Brook were greatly reduced in 2006 with completion of sewer separation by BWSC.

Table 3-3 shows the MWRA model simulation results for CSOs affecting the Charles River Basin in calendar year 2017. Actual CSO volumes and activation frequency are available for the Cottage Farm CSO facility, while the remaining results are estimated using a sewer system model.

The receiving water program is designed to capture water quality in all weather conditions. Table 3-4 summarizes the proportion of samples collected in dry, damp, and wet weather. MWRA began to intensively sample storm events in 2017. Due to the rarity of discharges from Cottage Farm, the Charles was repeatedly targeted for storm sampling in an attempt to capture water quality impacts from Cottage Farm. Additionally, since Cottage Farm discharges only in the largest storms, the wet weather sampling in the Charles is mostly of larger storms. This accounts for the extremely large number fraction (more than half) of the samples being collected in wet weather conditions, and potentially for the greater impacts seen in the “wet” or “heavy rain” rainfall conditions (section 3.4). Additionally, the addition of shoreline sampling locations added to the number of sampling events, as sampling could be performed in weather conditions that previously were unsafe for boat-based sampling. This is reflected in the large number of station visits in 2017 (761) relative to the previous five years (1956 station visits from 2012-2016).

**Table 3-2. Charles River Basin pollution sources.**

Source	Upper Basin	Mid-Basin	Lower Basin
CSOs (untreated)	2 active, 4 closed CAM005, CAM007  CAM009 closed 11/07 <sup>1</sup> CAM011 closed 11/07 <sup>1</sup> BOS032 closed 11/97 BOS033 closed 10/96	6 active, 3 closed  MWR010, MWR018, MWR019, MWR020, MWR023, CAM017  BOS042 closed 5/96 MWR021 closed 3/00 MWR022 closed 3/00	3 closed    BOS049 closed 7/10 BOS028 closed prior to 1997 SOM010 closed prior to 1996
CSO treatment facility (settling and detention; screened, chlorinated and dechlorinated CSO discharge)	No	Yes Cottage Farm (MWR201) activated 2 times in 2017	No
Storm drains	Yes	Yes	Yes
Upstream inputs (elevated bacteria counts upstream)	Yes	Yes	Yes
Dry weather inputs (elevated bacteria counts in dry weather)	Yes	Yes	Yes
Tributary brook or stream flow	Yes	Yes	Yes

<sup>1</sup> Pending continuing hydraulic evaluations by City of Cambridge.

**Table 3-3. Charles River Basin CSO activations, results of MWRA model simulations and facility records for 2017 system conditions and 2017 rainfall.<sup>1</sup>**

CSO Outfall	Activation Frequency	Total Discharge Duration (hr)	Total Discharge Volume (million gallons)
<i>Upper Charles</i>			
CAM005	1	4.49	1.66
CAM007	1	1.98	1.24
<b>TOTAL</b>		6.47	2.90
<i>Back Bay Fens (Muddy River)</i>			
BOS046	0	0	0
<b>TOTAL</b>		0	0
<i>Lower Charles</i>			
CAM017	0	0	0
MWR010	0	0	0
MWR018	1	2.20	2.08
MWR019	1	1.23	0.22
MWR020	0	0	0
MWR201 (Cottage Farm Facility) <sup>2</sup>	2	7.17	24.60
MWR023 (Stony Brook)	0	0	0
<b>TOTAL<sup>3</sup></b>		10.60	26.89

<sup>1</sup>Activation frequency and volume are from MWRA model results, except where noted (MWRA 2018).

<sup>2</sup>Treated discharge. Activation frequency and volume are from MWRA facility records (measurements).

<sup>3</sup>24.60 million gallons of 26.89 million gallons – or 91.4% – of total annual CSO discharge to the Lower Charles is treated.

**Table 3-4. Charles River station visits by rainfall condition.**

Sampling period	Dry <sup>1</sup>	Damp <sup>1</sup>	Wet <sup>1</sup>	Total
2012 - 2016	35% 688 station visits	30% 595 station visits	34% 673 station visits	100% 1956 station visits
2017 <sup>2</sup>	15% 116 station visits	30% 232 station visits	54% 413 station visits	100% 761 station visits

<sup>1</sup> Dry: no rainfall for previous 3 days; Wet: at least 0.5 inches in previous 2 days; damp is everything in between.

<sup>2</sup> 2017 samples tended to be collected in wetter conditions than the previous five years, with increased focus on sampling following large storms.

### 3.3 Summary of water quality, 2013-2017

A summary of water quality results collected during the last five years is shown in Table 3-5.



**Table 3-5. Summary of water quality, Charles River Basin, 2013 - 2017.**

Parameter		MADEP Water Quality Guideline or Standard	Upper Basin				Mid-Basin				Lower Basin			
			Mean ± SD	% meeting guideline	Range	n	Mean ± SD	% meeting guideline	Range	n	Mean ± SD	% meeting guideline	Range	n
Surface Temperature (°C) <sup>1</sup>	Summer	< 28.3	21.8 ± 4.0	99.2	8.7 – 28.7	635	22.3 ± 3.6	99.1	14.7 – 29.2	537	22.9 ± 4.0	95.4	11.9 – 30.0	152
	Winter		3.9 ± 2.4	100.0	0.0 – 10.1	78	4.7 ± 0.8	100.0	3.1 – 6.1	36	3.3 ± 2.3	100.0	-0.5 – 9.0	32
Bottom water dissolved oxygen (mg/L) <sup>1</sup>	Summer	> 5.0	6.9 ± 1.6	90.0	0.9 – 12.0	500	3.6 ± 2.8	37.4	0.1 – 10.2	511	5.9 ± 2.7	56.4	0.8 – 13.2	140
	Winter	> 5.0	12.8 ± 1.0	100.0	11.6 – 15.5	51	8.8 ± 4.4	69.4	0.9 – 12.4	36	12.4 ± 1.2	100.0	9.4 – 15.0	29
pH <sup>2</sup> (S.U.)		6.5-8.3	7.4 ± 0.4	97.3	6.7 – 9.0	1763	7.4 ± 0.6	91.3	6.3 – 9.1	1523	7.3 ± 0.6	89.9	5.9 – 8.8	507
Water clarity	Total Suspended Solids (mg/L)	NS	4.3 ± 8.0	-	0.3 – 60.1	122	ND	-	ND		4.5 ± 5.1	-	1.1 – 44.9	118
	Secchi depth (m) <sup>3</sup>	NS	1.0 ± 0.3	-	0.4 – 2.5	581	1.1 ± 0.3	-	0.4 – 3.1	738	1.3 ± 0.4	-	0.6 – 2.6	248
	Turbidity (NTU)	NS	6.6 ± 3.9	-	0.2 – 50.1	1531	6.8 ± 4.1	-	0.1 – 59.2	1453	5.7 ± 3.0	-	0.1 – 20.6	384

For footnotes, see following page.

**Table 3-5. Summary of water quality, Charles River Basin, 2013-2017, continued.**

Parameter		MA DEP Water Quality Guideline or Standard	Upper Basin				Mid- Basin				Lower Basin			
			Mean ± SD (95% CI)	% meeting guideline	Range	n	Mean ± SD (95% CI)	% meeting guideline	Range	n	Mean ± SD (95% CI)	% meeting guideline	Range	n
Bacteria (col/100mL) <sup>4</sup>	<i>E. coli</i>	126 / 235 <sup>5</sup>	151 (138-165)	66.4	0 – 38400	1078	45 (40-50)	82.0	0 – 53800	1311	28 (24-34)	90.3	0 – 6490	404
	<i>Enterococcus</i>	35/ 61 <sup>5,6</sup>	15 (13-17)	74.7	0 – 24200	1077	7 (6-8)	83.8	0 – 17300	1318	5 (4-7)	88.4	0 – 2050	404
Nutrients (µmol/L)	Phosphate	NS	0.6 ± 0.4	-	0.2 – 2.4	125	ND	-	ND		0.6 ± 0.4	-	0 – 2.0	121
	Ammonium	NS	4.1 ± 3.4	-	0.2 – 22.2	123	ND	-	ND		5.8 ± 5.5	-	0 – 32.1	119
	Nitrate+nitrite	NS	42.7 ± 20.5	-	10.9 – 93.6	125	ND	-	ND		36.7 ± 23.8	-	0 – 95.8	121
Algae (µg/L)	Chlorophyll	NS	4.5 ± 4.8	-	0.4 – 29.6	125	ND	-	ND		15.9 ± 15.6	-	1.4 – 96.6	121

NS: no applicable numerical standard or guideline. ND: no data. n: number of samples

<sup>1</sup> Summer (June-October), Winter (January-March).

<sup>2</sup> Median and standard error of the median are shown for pH, rather than arithmetic mean and standard deviation.

<sup>3</sup> MADPH standard of ≥1.2 meters applies only to public bathing beaches; there are none in the Charles River Basin.

<sup>4</sup> For bacterial data, 95% confidence intervals (CI) are provided in lieu of standard deviations. “Mean” = geometric mean for bacteria data.

<sup>5</sup> First number is the all samples geometric mean limit - compare to the "Mean±SD" column (i.e., the Mean in that column is the geometric mean of all stations in that region for the specified indicator bacteria); the second number is the single sample standard - compare to the "% meeting guideline" column (i.e., the "% meeting guideline" column is the percentage of samples meeting the single sample standard). The “Range” column gives the range of single sample results.

<sup>6</sup> Either *E. coli* or *Enterococcus* are acceptable indicators for EPA, MADEP, and MADPH to assess suitability for swimming in freshwater.

### 3.4 *Water quality results, 2017*

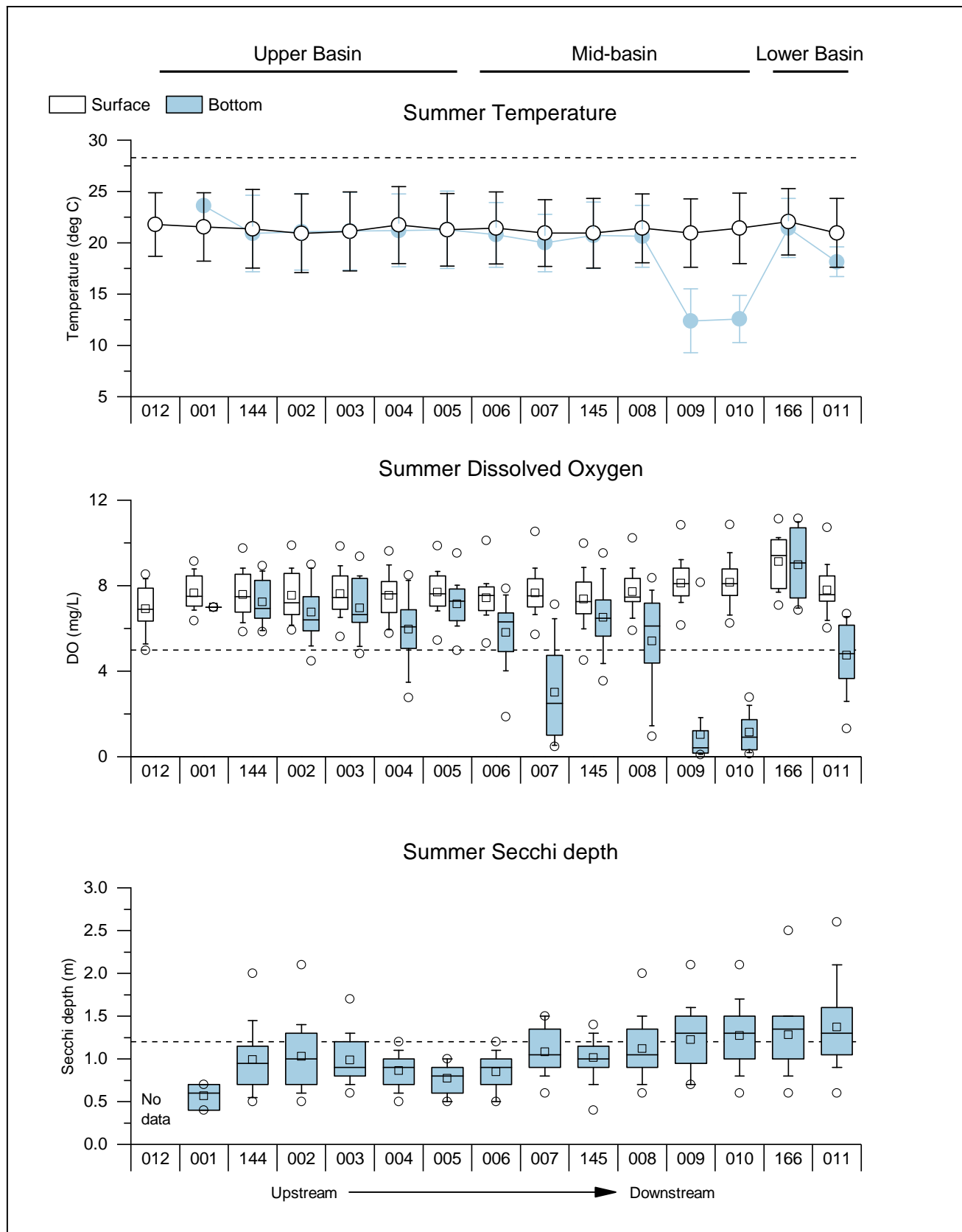
This section provides an analysis of water quality parameters measured in the lower Charles in the 2017 monitoring year.

#### 3.4.1 Physical measurements

**Temperature.** Summer (June to October) water temperatures for 2017 are shown for each sampling location in the top graph in Figure 3-2. Surface temperatures are relatively consistent upstream to downstream. Bottom-water temperatures are lower in the deeper waters downstream near the Longfellow Bridge, particularly station 009, where water depth exceeds 6 meters (20 to 23 feet). Station 166 is collected in a shallow location in the basin near the Science Museum, where differences in surface and bottom temperatures are small or nonexistent. Locations upstream of station 004 (upstream of the Eliot Bridge in Cambridge) are relatively shallow, with depths ranging from 1 to 3 meters.

**Dissolved Oxygen.** The spatial trend in summer dissolved oxygen (DO) is shown in the center graph of Figure 3-2. Average surface water DO meets the State standard of 5.0 mg/L at all locations. While bottom DO does meet the State standard of 5.0 mg/L at upstream locations in the Charles, mean bottom water DO failed to meet the standard at deeper water locations downstream, including stations 007, 008, 009, 010, and 011. Stratification due to salt water intrusion through the river locks and cooler bottom temperatures, results in extremely low bottom-water dissolved oxygen in the lower basin area near the Longfellow Bridge. Station 166, downstream of the lower basin, is collected at a relatively shallow near-shore location and does not reflect the low DO levels of deeper water in the lower basin.

**Water clarity.** Water clarity is indicated by Secchi disk depth. Summer Secchi readings are shown for individual sampling locations in the bottom graph in Figure 3-2. Station 012 at the further upstream end is too shallow for Secchi measurements but is typically clear to the river bottom. Most locations in the Lower Charles had relatively similar average Secchi depths, with values slightly below the MADPH beach standard of 1.2 meters. In 2017, the most downstream stations exhibited average Secchi depths above the MADPH beach standard.



**Figure 3-2. Summer temperature, dissolved oxygen and Secchi depth, Charles River Basin, 2017.**

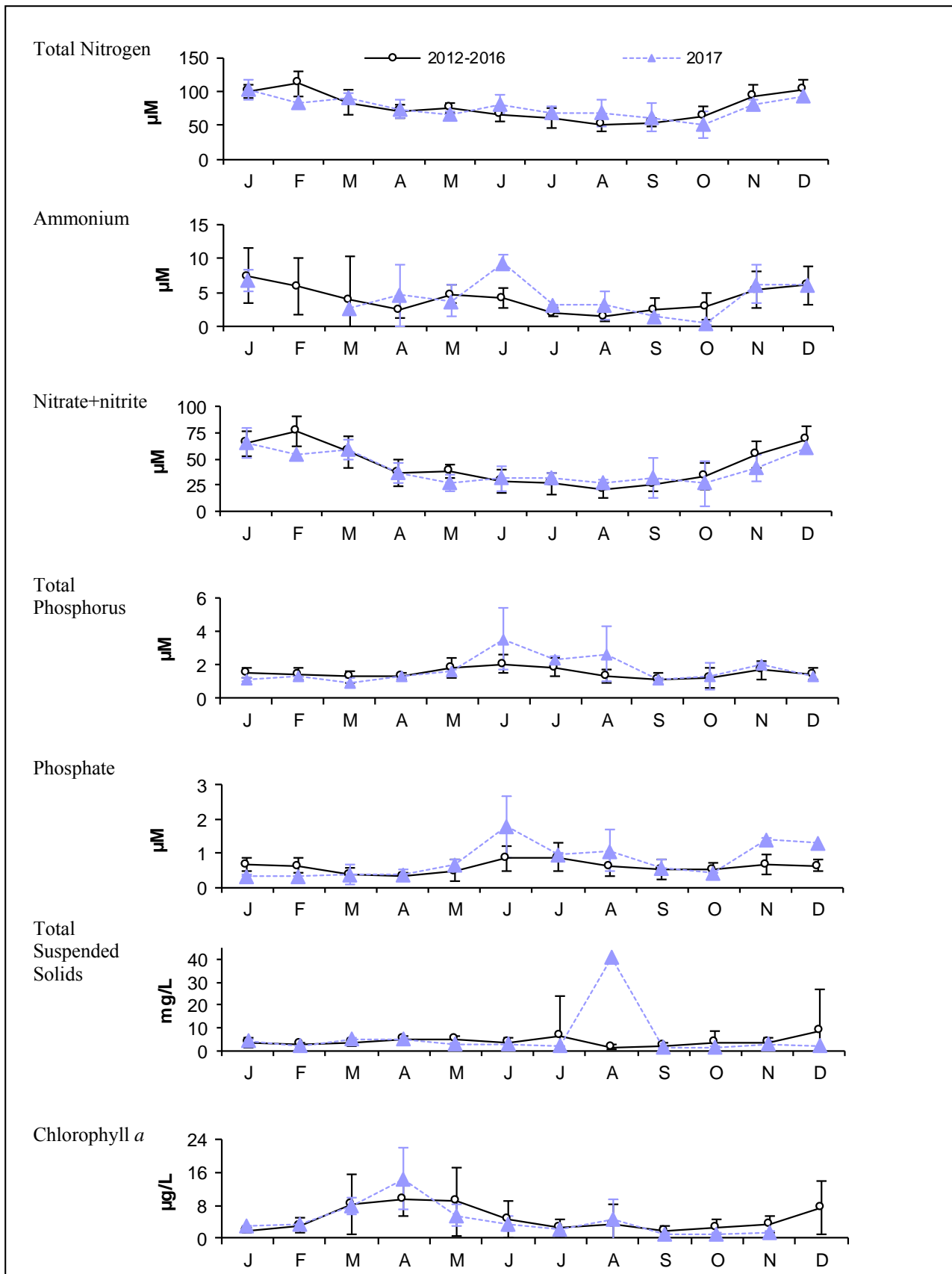
Dashed lines are State standards or guidelines (maximum for temperature, minima for DO and Secchi). No Secchi data are available for station 012 because of shallow depth; the bottom is typically visible at this site. Hollow squares on the DO and Secchi plots indicate the arithmetic mean.

### 3.4.2 Nutrients, TSS and chlorophyll

Monthly means for total nitrogen, ammonium, nitrate/nitrite, total phosphorus, phosphate, total suspended solids (TSS), and chlorophyll *a* at the upstream (012) and downstream (166) locations in the lower Charles are shown in Figure 3-3 and Figure 3-4, respectively. 2017 averages are plotted with the average of the previous five years (2012 – 2016) for comparison.

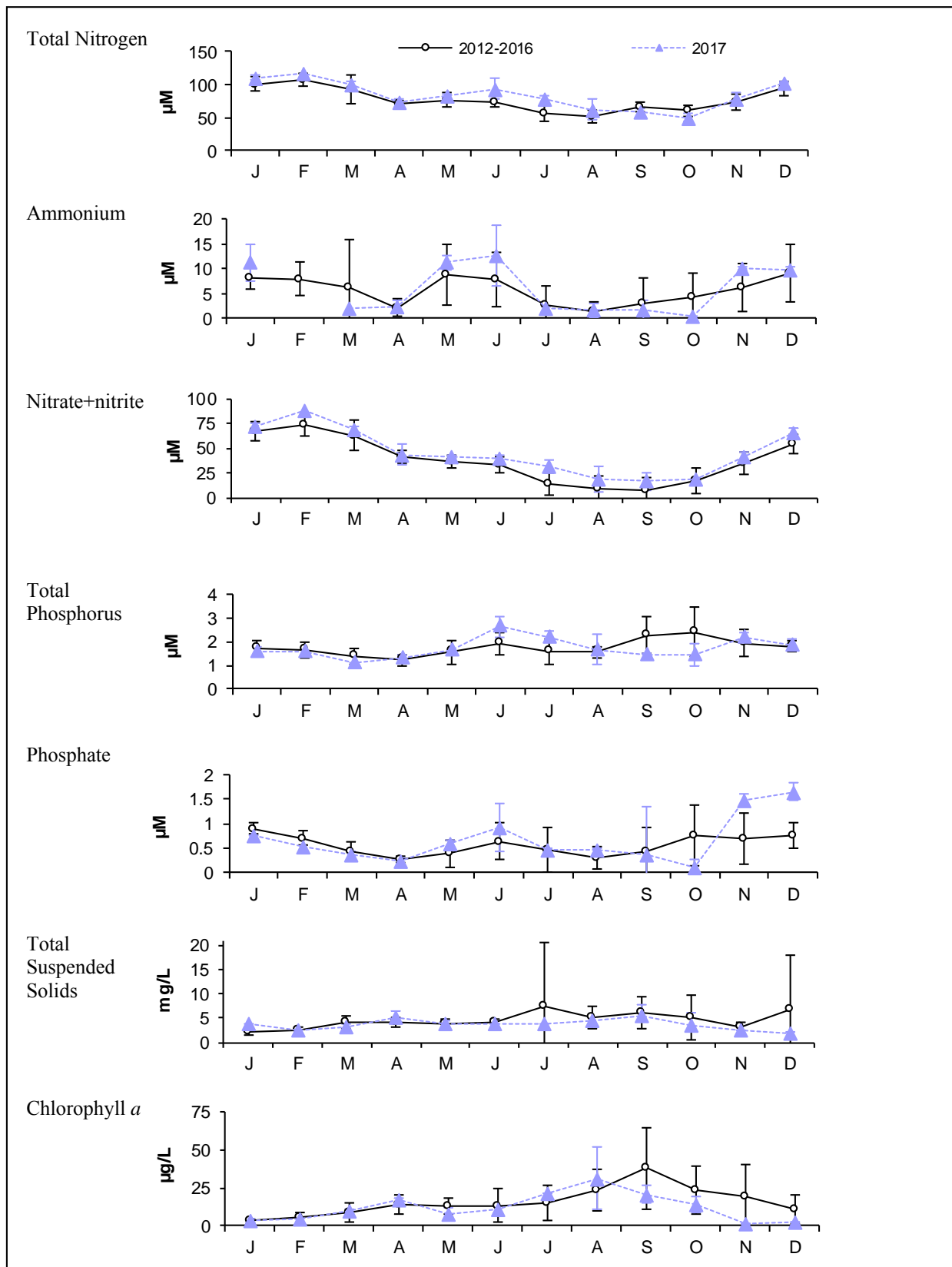
Seasonal patterns for the 2017 monitoring year were similar to the 2012 – 2016 averages at both stations, for most parameters. Exceptions included elevated TSS at station 012 in August, and elevated total phosphorus and phosphate at upstream station 012 from June through August. Station 166 also exhibited levels of total nitrogen and total phosphorus higher than the 5-year average from June through August. Reduced levels of ammonium were seen at station 166 during late summer and early fall, similar to 2016. At station 166, chlorophyll values in September through November were lower than the 2012-2016 averages, following a period of elevated chlorophyll in July and August.

Seasonal signals during 2017 were most evident for nitrate/nitrite and chlorophyll *a*. While the two locations showed similar concentrations for most parameters, there were differences between the two stations for chlorophyll *a*. Historically, station 012 has the highest chlorophyll concentrations in spring, whereas the Lower Basin has highest concentrations in late summer. This was the case in 2017, which corresponded with a reported cyanobacteria bloom in the Lower Charles that began in late July, although after August levels were below the 2012 – 2016 average.



**Figure 3-3. Monthly average nutrients, TSS and Chlorophyll 2012 – 2016 and 2017, Station 012, Watertown Dam.**

Error bars are ± 1 SD. Note different scales than Figure 3-4 for most parameters.



**Figure 3-4. Monthly average nutrients, TSS and Chlorophyll 2012 – 2016 and 2017, Station 166, Science Museum.**

Error bars are ± 1 SD. Note different scales than Figure 3-3 for most parameters.

### 3.4.3 Bacterial water quality

Figure 3-5 shows the 2017 bacterial water quality at each location sampled in the Charles for dry, damp, and wet weather. The rainfall categories are derived from rainfall measured at four local rain gauges: MWRA's Ward Street, BWSC's Allston and Charlestown, and USGS's Fresh Pond gauges. Each sampling location is paired with the closest rain gauge. Upstream reaches generally have more elevated bacteria counts than downstream locations, though this trend is less pronounced than in past years (especially for *Enterococcus*), with a continuing improvement in conditions at Watertown Dam in particular. As shown in Table 3-4, wet weather sampling in the Charles River occurred more frequently in 2017 than previous years, due to enhanced focus on sampling consecutive days after storms. Chapter 5 details this consecutive day bacteria sampling in the Charles River following a diverse set of rain events.

The top and bottom graphs in Figure 3-5 show percentile plots of *Enterococcus* and *E. coli* counts arranged from upstream to downstream locations for 2017, respectively (note log scale). In 2017, both *Enterococcus* and *E. coli* show the historic spatial trend with more elevated bacteria counts upstream relative to downstream locations. *E. coli* counts are typically higher than *Enterococcus*, but show similar distribution spatially and in various conditions relative to their respective geometric mean state standards (dashed line). For the Upper Basin in 2017, samples were near or below these standards in dry and damp weather (except for the furthest upstream stations 012 and 001, where the geometric mean standard was not met in dry conditions), but exceeded the standard in wet weather. For both indicators at stations downstream of 008 in the mid-basin, results were fairly similar in all weather conditions. These samples almost always met the standard in dry and damp weather, and typically met the standard in wet weather as well.

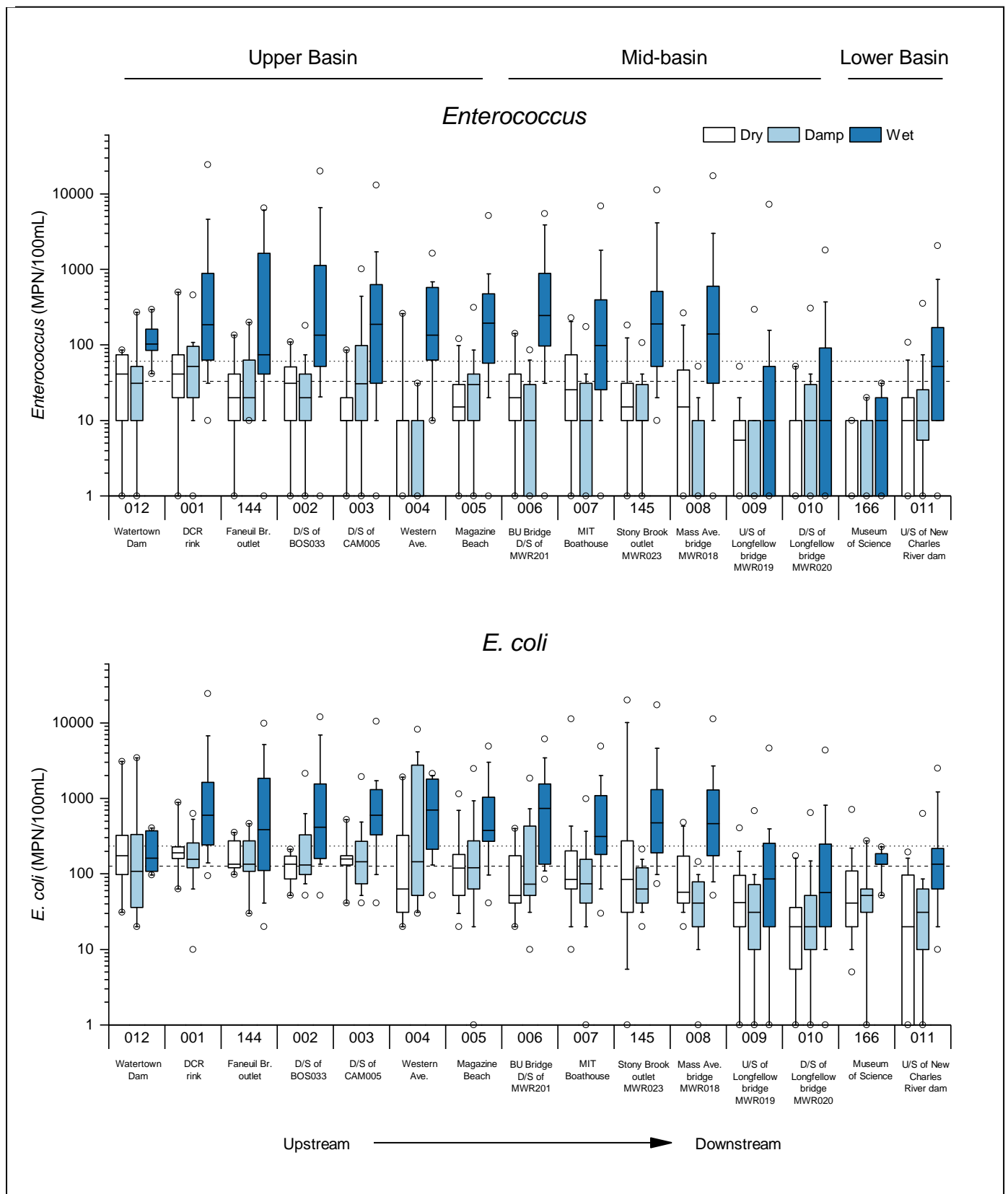
Geometric means for each location under all rain condition for 2012 - 2016 appear in Table 3-6. Geometric means for 2017 are shown in a separate column from the 5-year geometric means. For both indicators, 2017 geometric means were higher than the 5-year mean at all locations. This is due to the increased sampling effort following heavy storms, as 54% of station visits in 2017 were conducted in 'Wet' conditions (greater than 0.5" rain in the past two days). This is accentuated in the stations surveyed by shoreline during inclement weather and weekends (shaded), which received a higher proportion of wet weather sampling than samples not sampled by shoreline. Due to the heavy wet weather bias in 2017, Figure 3-6 allows the comparison of annual geometric means to the state standard under various rain conditions.

Figure 3-6 shows the impact of rainfall on the three Lower Charles reaches on *Enterococcus* densities (upper figure), along with results for individual locations near CSO outfalls (lower figure). The upper figure shows that for 2017, bacterial concentrations in the Upper Basin are routinely higher than Mid-Basin and Lower Basin stations in all conditions. The 2017 geometric means, the line within the box, met the state standard in dry, damp and light rain conditions in the Mid-Basin, and only exceeded in heavy rain. The Lower Basin met the standard in all conditions, although just barely in heavy rain. The lower figure shows that stations 005, 006 and 008 had elevated *Enterococcus* levels in heavy rain conditions, but met standards in dry, damp, and light rain conditions, with the exception of 005, which did not meet in light rain conditions (which is consistent with its location in the Upper Basin). Stations 009 and 010, which are both downstream of CSOs, met standards in



all conditions. Station 011 at the New Charles River Dam, met the geometric mean standard in dry and damp conditions, but not in light or heavy rain.

The change in *Enterococcus* concentrations since 1989 in the Upper Charles Basin (upstream of most CSO influences) and the lower Charles (including the Mid- and Lower-Basin locations) appear in Figure 3-7 and Figure 3-8. Results are grouped by phases of the LTCP improvements with the last period (2014-2017) after the completion of all LTCP-related projects in the Charles. The plot includes the counts for all locations in the Charles combined, in each rainfall condition. These figures show change over time in both regions, with statistically significant improvement in water quality from the initial phase to the latest phase. The Upper Basin shows improvement in both dry and wet conditions and meets the geometric mean swimming standard in dry, damp, and light rain weather, although individual high counts are still seen in all conditions. The most pronounced change is in the Middle and Lower Charles Basins, which both met the geometric mean swimming standard in all conditions.



**Figure 3-5. Indicator bacteria concentrations, Charles River Basin, 2017.**

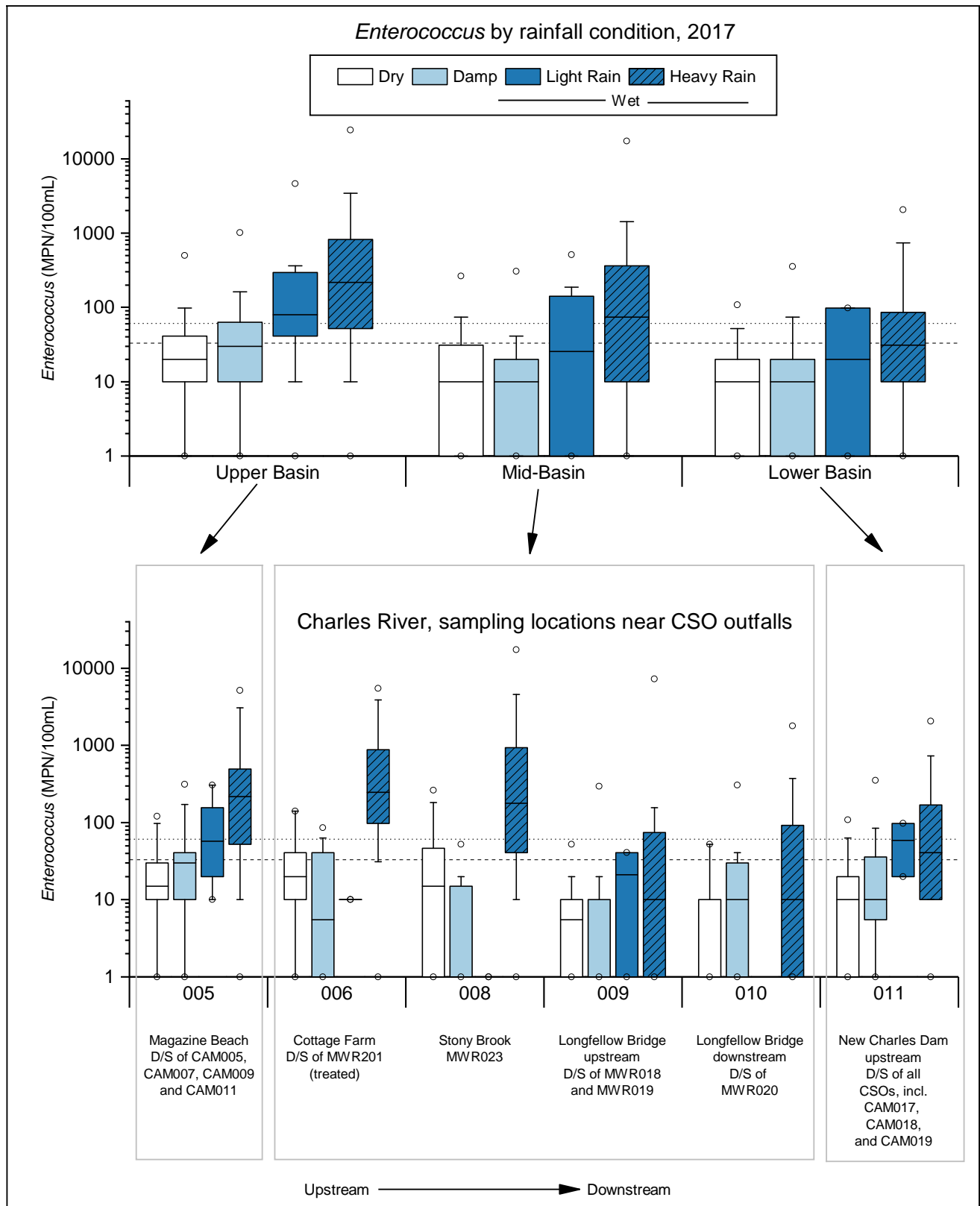
Dashed lines show MADEP *Enterococcus* and *E. coli* geometric mean standards, dotted lines show single sample standards. “Dry”: no rainfall for previous 3 days; “Wet”: at least 0.5 inches in previous 2 days; “Damp”: everything in between. Rainfall measured at local rain gauges. “D/S” and “U/S”: downstream and upstream, respectively.

**Table 3-6. Geometric mean indicator bacteria, Charles River Basin, 2012 – 2016 and 2017.**

Stations designated for shoreline sampling (weekends or unsafe boating conditions) are shaded.

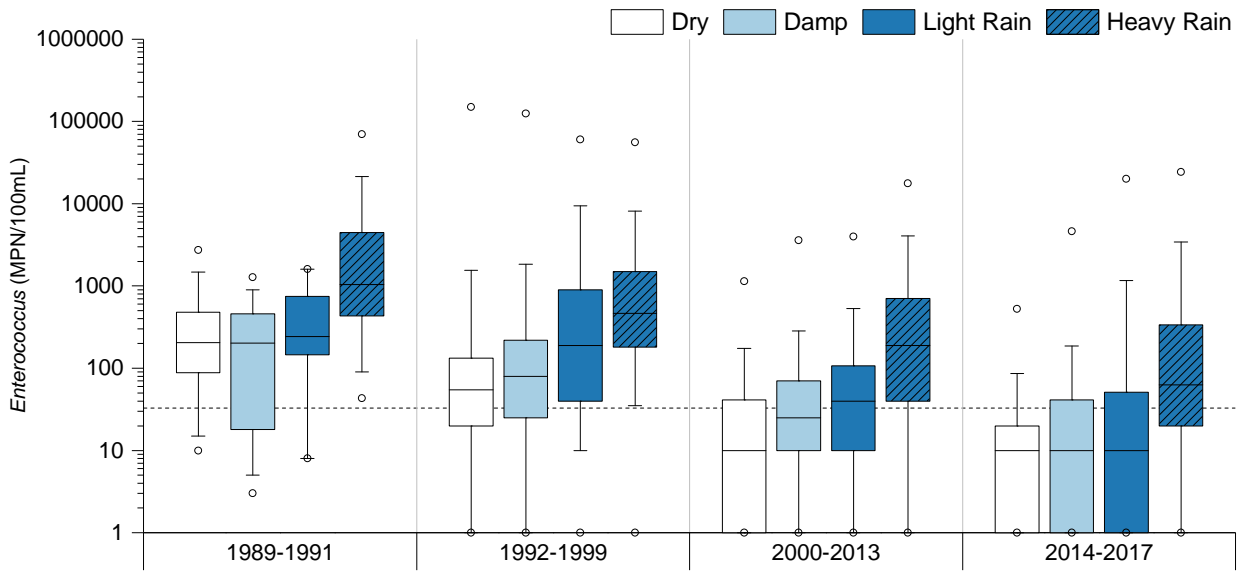
Station	Location	Surface or Bottom	Number of samples		<i>Enterococcus</i> (95% CI) <sup>1</sup> MPN/100 mL DEP limit: 33 MPN/100 mL		<i>E. coli</i> (95% CI) <sup>1</sup> MPN/100 mL DEP limit: 126 MPN/100 mL	
			2012 – 16	2017	2012 – 16	2017	2012 – 16	2017
012	Newton/Watertown, footbridge upstream of Watertown Dam	S	128	24	16 (11-21)	31 (16-62)	128 (108-153)	169 (100-285)
001	Newton, near Nonantum Rd., rear of DCR skating rink	S	113	59	13 (8-19)	101 (60-169)	207 (167-257)	353 (248-502)
144	Brighton, downstream of N. Beacon St. bridge, Faneuil Brook outlet, BOS032 (closed 1999)	S	112	33	11 (7-17)	62 (29-131)	197 (155-252)	277 (166-459)
002	Allston, downstream of Arsenal Street bridge, BOS033	S	113	60	8 (5-12)	62 (33-114)	140 (105-187)	311 (219-443)
003	Allston/Cambridge, midstream, near Mt. Auburn Street, between CAM005 and CAM006	S	114	60	7 (4-10)	53 (29-93)	109 (85-140)	302 (221-412)
004	Allston/Cambridge, midstream, between River Street and Western Avenue bridges	S	112	35	3 (2-5)	15 (6-34)	47 (34-65)	275 (156-484)
005	Cambridge, near Magazine Beach, upstream of Cottage Farm	S	228	83	6 (4-8)	35 (22-56)	85 (69-103)	186 (130-267)
006	Cambridge/Boston, midstream, downstream of Cottage Farm, BU bridge	S	112	35	10 (7-15)	29 (12-69)	135 (109-168)	212 (126-358)
007	Cambridge, near Memorial Dr., MIT Boathouse	S	114	60	4 (3-6)	31 (18-55)	37 (26-54)	162 (112-235)
		B	112	35	5 (3-8)	40 (19-81)	65 (48-86)	175 (101-303)
145	Boston (Charlesgate), Muddy River/Stony Brook outlet	S	115	60	8 (5-12)	47 (27-81)	98 (71-136)	206 (131-323)
008	Cambridge/Boston, midstream, downstream of Harvard Bridge	S	112	35	3 (2-5)	17 (6-44)	35 (25-50)	136 (78-235)
		B	112	35	5 (3-7)	20 (8-49)	44 (31-63)	114 (65-200)
009	Cambridge/Boston, midstream, upstream of Longfellow Bridge near Community Sailing	S	120	61	2 (1-3)	12 (6-21)	22 (15-31)	89 (61-128)
		B	112	35	1 (1-2)	1 (0-1)	4 (3-6)	11 (6-23)
010	Boston, downstream of Longfellow Bridge, MWR022	S	112	35	3 (2-4)	8 (3-19)	18 (13-25)	70 (42-118)
		B	112	35	3 (2-4)	4 (2-10)	10 (7-14)	15 (7-30)
166	Boston, old Charles River dam, rear of Science Museum	S	132	25	3 (2-4)	3 (2-4)	38 (28-52)	49 (26-91)
011	Boston, upstream of river locks (New Charles River Dam) and I-93, near Nashua St.	S	114	60	2 (1-3)	14 (8-23)	16 (12-22)	48 (29-79)
		B	112	35	8 (6-11)	34 (19-60)	20 (15-27)	48 (26-89)

<sup>1</sup> The MADEP limits are geometric means for both *Enterococcus* and *E. coli*.



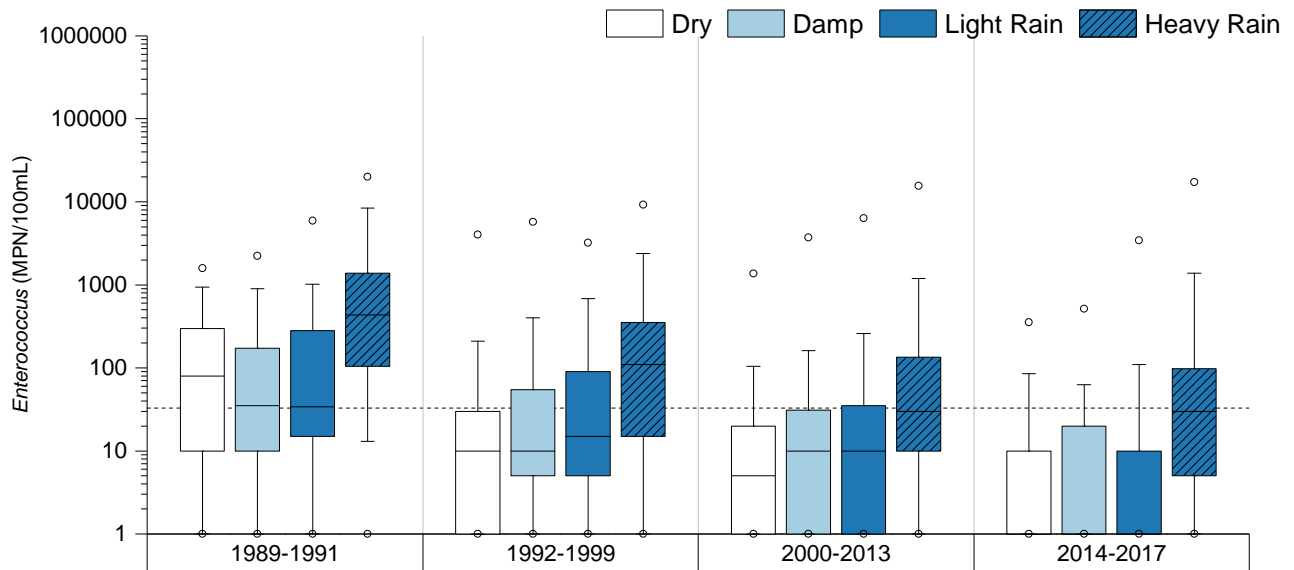
**Figure 3-6. Enterococcus by rainfall condition, Charles Basin, 2017.**

Dashed line shows MADEP freshwater standard of 33 MPN/100 mL for *Enterococcus*; dotted line shows the single sample standard of 61 MPN/100mL. Rainfall is rainfall from local MWRA, BWSC, and USGS rain gauges. “Dry”: no rainfall for previous 3 days; “Damp”: any rain < 0.15 inches at least two or three days previous to sampling and/or 0.1 inches in previous day; “Light Rain”: between 0.1 and 0.5 inches in previous day and/or between 0.15 and 0.5 in two previous days; “Heavy Rain”: more than 0.5 inches in previous 3 days. “D/S”: downstream.



**Figure 3-7. *Enterococcus* over time, Upper Charles Basin (upstream of most CSOs) by phase of Long Term CSO Plan and rainfall condition.**

Dotted line shows State geometric mean standard. Data includes results for stations 012, 001, 144, 002, 004, and 005. Rainfall is NOAA rainfall from Logan airport. “Dry”: No rainfall for previous 3 days; “Damp”: any rain < 0.15 inches at least two or three days previous to sampling and/or 0.1 inches in previous day; “Light Rain”: between 0.1 and 0.5 inches in previous day and/or between 0.15 and 0.5 in two previous days; “Heavy Rain”: more than 0.5 inches in previous 3 days.



**Figure 3-8. *Enterococcus* over time, Lower and Middle Charles Basin by phase of Long Term CSO Plan and rainfall condition.**

Dotted line shows State geometric mean standard. Data includes results for all stations from 006 (BU bridge) downstream. Rainfall is NOAA rainfall from Logan airport. “Dry”: No rainfall for previous 3 days; “Damp”: any rain < 0.15 inches at least two or three days previous to sampling and/or 0.1 inches in previous day; “Light Rain”: between 0.1 and 0.5 inches in previous day and/or between 0.15 and 0.5 in two previous days; “Heavy Rain”: more than 0.5 inches in previous 3 days.

### 3.5 Summary of Charles River Water Quality

The spatial distribution of 2017 bacterial water quality in the Charles across rain conditions was generally consistent with the previous several years. Annual geometric means downstream of the Harvard Bridge generally met state standards for *Enterococcus* and *E. coli* despite a heavy wet weather bias in the dataset. Charles River stations from 144 downstream routinely meet *Enterococcus* standards in dry and damp weather, but exhibit exceedances in wet weather, particularly at Upper Basin and upstream Mid-Basin stations. The two furthest upstream stations, 012 and 001, do not meet the geometric mean standards in any of the three rainfall conditions. Chapter 5 provides more detailed analysis of bacteria concentrations following storms of various sizes, and the time it takes for bacteria counts to return to baseline.

Generally, water quality was consistent with prior years, with more elevated concentrations at upstream locations (upstream of most CSOs) in all weather, and improving moving downstream to the New Charles River Dam. Even with the more extensive wet weather sampling, locations in the downstream end of the Mid-Basin, and station 166 of the Lower Basin, met the geometric mean standard in all conditions.

As shown in Figure 3-7 and 3-8, *Enterococcus* counts have decreased in all regions of the Charles River, in all weather conditions, through the progression of MWRA's Long Term CSO Plan. In the 2014-2017 period, after completion of all construction projects in the region, the geometric mean of *Enterococcus* in the Middle and Lower Charles meets state standards in all weather conditions. In the Upper Basin, *Enterococcus* met the geometric mean standard in all but heavy rain for the 2014-2017 period.

Bottom-water dissolved oxygen met standards in the Upper Charles Basin, but failed to meet standards in the deeper waters of the Mid-Basin and the Lower Charles Basin, a pattern consistent with prior years. Seawater entering through the Charles locks in summer contributes to stratification of the basin, limiting exchange with surface waters. Surface water dissolved oxygen met standards at all locations in the Charles River.

Nutrients and chlorophyll exhibited seasonal signals as expected, but matched long term averages overall. Elevated chlorophyll *a* was seen at upstream station 012 in the spring, and at station 166 during a late summer cyanobacteria bloom event in the Lower Charles. Total phosphorus and phosphate at both of these stations was higher than the previous 5-year mean in June, and total phosphorus was also higher than the 5-year mean in July.

## 4 Mystic River and Alewife Brook

### 4.1 Sampling area

Monitoring results of the Mystic River and tributaries are divided into four reaches. Sampling locations and CSO outfalls are shown on the map in Figure 4-1. Table 4-1 describes the reaches and the sampling locations within each reach.

For 2018, two new sampling location (stations 276 and 277) were added in the Alewife Brook bracketing the cluster of CSO outfalls around the Massachusetts Avenue bridge from Cambridge to Arlington. Station 277 is upstream of CAM401B, and station 276 is directly downstream of SOM001A. Data from these locations will appear in the next annual report.

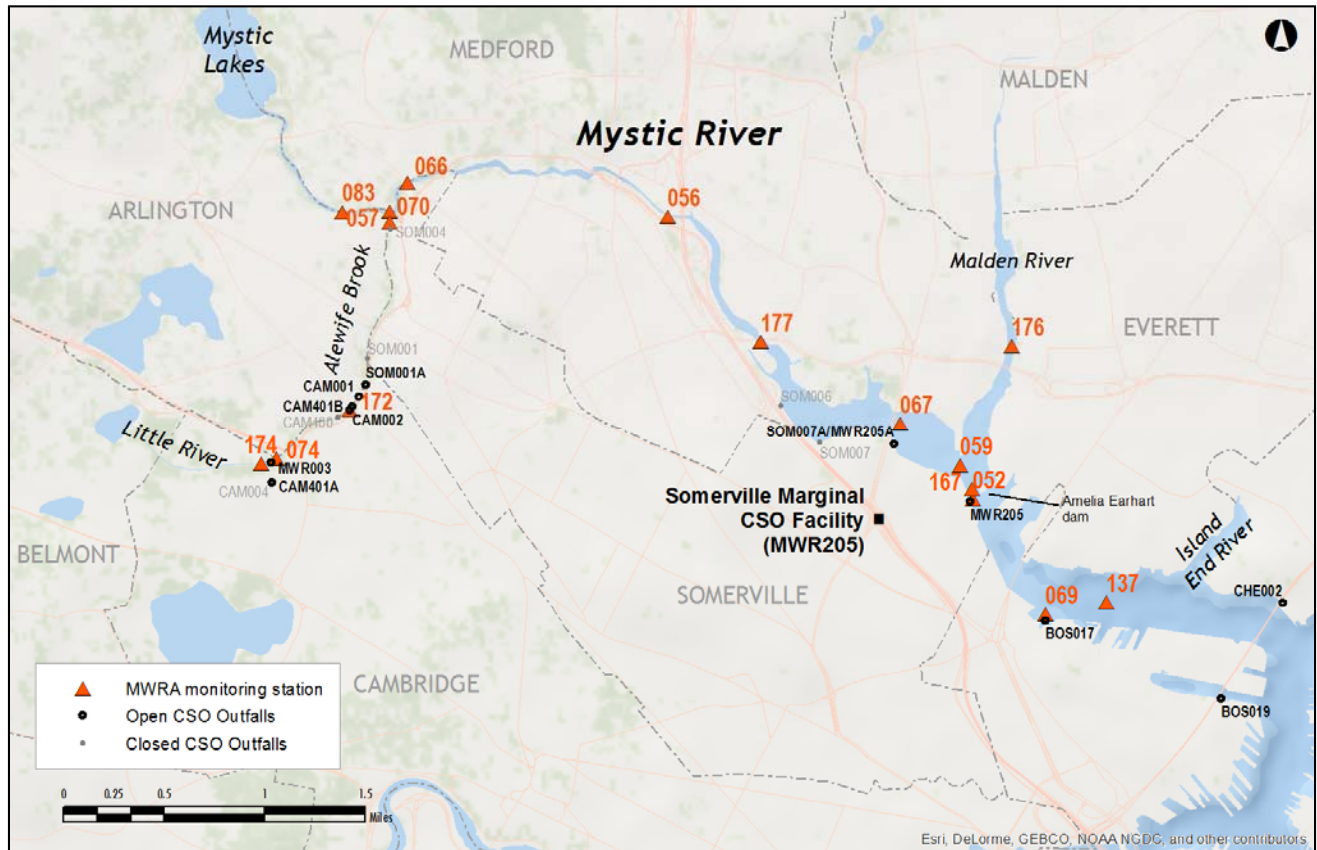


Figure 4-1. Map of Mystic River sampling locations.

### 4.2 Pollution sources

Known pollution sources to the Mystic River/Alewife Brook are shown in Table 4-2 and consist of stormwater, upstream inputs and CSOs. Nine CSOs are located in Cambridge and Somerville, including six

active CSOs in Alewife Brook, and one treated CSO in the Lower Mystic basin (Somerville Marginal CSO, MWR205A/SOM007A), which discharges screened, chlorinated, and dechlorinated flow only during an activation occurring at high tide. At low tide, the Somerville Marginal CSO (MWR205) discharges downstream of the Amelia Earhart dam, screening, chlorinating, and dechlorinating CSO flow before discharge. It is the only source of treated CSO discharge to the Mystic River below the Amelia Earhart dam, although there is an untreated outfall (BOS017) as well. In 2017, Somerville Marginal MWR205A/SOM007A had 12 discharge events, and Somerville Marginal MWR205 had 22 activations resulting in discharge below the dam. BOS017 did not discharge in 2017. Neither MWR205 nor BOS017 are in the Variance waters, however.

Table 4-3 shows the MWRA model simulation results for CSOs affecting the Mystic River and Alewife Brook in calendar year 2017. Metered CSO volumes and activation frequency are available for the Somerville Marginal CSO facility, while the remaining results are estimated using model results.

Table 4-4 summarizes the proportion of samples collected in dry, damp, and wet weather between 2012 and 2017. 72% of the samples were collected in damp and wet conditions in 2017. Although the bias towards wet weather is not as extreme as in the Charles, there is a slight tilt towards samples collected in wetter conditions.



**Table 4-1. MWRA monitoring locations, Mystic River and Alewife Brook.**

Reach	Description of Reach	Sampling location	Location Description
Alewife Brook (Class B/Variance, warm water fishery)	Tributary to Mystic River. From confluence at Little River in Cambridge/Arlington to confluence with Mystic River in Arlington/Somerville	174, Cambridge/Arlington 074, Cambridge/Arlington 172, Cambridge/Arlington 070, Arlington/Somerville	Little River, upstream of Rt. 2 and off ramp to Alewife T station. Upstream of all CSOs* Downstream of CAM401A, MWR003* Downstream of CAM401B* Mystic Valley Parkway bridge. Downstream of all Alewife CSOs*
Upper Mystic River (Class B/Variance, warm water fishery)	Downstream of Lower Mystic Lake in Arlington/Medford to Route 28 bridge in Medford	083, Arlington/Medford 057, Medford 066, Medford 056, Medford	Upstream of confluence of Mystic River and Alewife Brook* Confluence of Mystic River and Alewife Brook* Boston Ave bridge, downstream side Upstream of I-93 bridge, near Medford Square off ramp*
Lower Mystic River basin (Class B/Variance, warm water fishery)	Route 28 bridge in Medford to Amelia Earhart Dam in Somerville/Everett, including the Malden River	177, Medford 067, Medford 176, Medford/Everett 059, Somerville/Everett 167, Somerville/Everett	Downstream of Rt. 16 bridge Rt. 28 bridge, downstream side, near Somerville Marginal MWR205A outfall* Malden River, upstream of Rt. 16 bridge* Confluence of Mystic and Malden Rivers Amelia Earhart Dam, upstream side*
Mystic River mouth (Class SB <sub>CSO</sub> , marine)	Downstream of Amelia Earhart Dam in Somerville/Everett to Tobin Bridge, Chelsea R. confluence in Chelsea/East Boston	052, Somerville 069, Charlestown 137, Charlestown/Everett	Downstream of Amelia Earhart dam, near Somerville Marginal CSO facility outfall (MWR205)* Rear of Schrafft's Center at BOS017 outfall* Upstream of Tobin Bridge near confluence of Mystic, Chelsea Rivers and upper inner harbor

Sampling locations are midstream unless otherwise noted. \* indicates sampling location is also a shoreline sampling location.

**Table 4-2. Mystic River/Alewife Brook pollution sources.**

Source	Alewife Brook	Upper Mystic River	Lower Mystic Basin	Mystic River mouth
CSOs (untreated)	6 active, 7 closed CAM401A, MWR003, CAM001, CAM002, CAM401B, SOM001A  CAM004 closed 12/15 CAM400 closed 3/11 SOM001 closed 12/96 SOM002 closed 1994 SOM002A closed 8/95 SOM003 closed 8/95 SOM004 closed 12/95	2 closed  SOM006 closed 12/96 SOM007 closed 12/96	None	1 active  BOS017
CSO treatment facility (screened, chlorinated and dechlorinated CSO discharge)	No	No	Yes Somerville Marginal (MWR205A/SOM007A, high tide only) Activated 12 times in 2017	Yes Somerville Marginal (MWR205) Activated 22 times in 2017
Storm drains	Yes	Yes	Yes	Yes
Upstream inputs (elevated bacteria counts upstream)	Yes	Yes	Yes	Yes
Dry weather inputs (elevated bacteria counts in dry weather)	Yes	Yes	Yes	Yes
Tributary brook or stream flow	Yes	Yes	Yes	Yes

**Table 4-3. Mystic River/Alewife Brook CSO activations, results of MWRA model simulations and facility records for 2017 system conditions and 2017 rainfall.<sup>1</sup>**

CSO Outfall	Activation Frequency	Total Discharge Duration (hr)	Total Discharge Volume (Million Gallons)
<i>Alewife Brook</i>			
CAM001	1	1.41	0.05
CAM002	1	1.24	0.29
MWR003	1	0.50	0.86
CAM401A	1	1.49	0.55
CAM401B	2	2.19	0.29
SOM001A	2	2.98	3.02
<b>TOTAL</b>		9.80	5.05
<i>Mystic River (upstream of dam)</i>			
SOM007A/MWR205A (Somerville Marginal, high tide discharge only) <sup>2</sup>	12	13.35	2.20
<b>TOTAL<sup>3</sup></b>		13.35	2.20
<i>Mystic River mouth (downstream of dam, marine outfalls)</i>			
MWR205 (Somerville Marginal Facility) <sup>4</sup>	22	83.65	69.04
BOS017	0	0	0
<b>TOTAL<sup>5</sup></b>		83.65	69.04

<sup>1</sup>Activation frequency and volume are from MWRA model results, except where noted (MWRA 2018).

<sup>2</sup>Treated discharge. Activation frequency and volume are from MWRA depth sensor measurement and MWRA model results, respectively.

<sup>3</sup>In 2017, 100% of the volume discharged to the Mystic River (upstream of dam) was treated.

<sup>4</sup>Treated discharge. Activation frequency and volume are from MWRA facility records (measurements).

<sup>5</sup>In 2017, 100% of the volume discharged to the Mystic River mouth was treated.

**Table 4-4. Mystic River/Alewife Brook station visits by rainfall condition.**

Sampling period	Dry <sup>1</sup>	Damp <sup>1</sup>	Wet <sup>1</sup>	Total
2012 - 2016	31% 734 station visits	32% 749 station visits	37% 885 station visits	100% 2358 station visits
2017 <sup>2</sup>	28% 219 station visits	37% 289 station visits	35% 279 station visits	100% 787 station visits

<sup>1</sup> Dry: no rainfall for previous 3 days; Wet: at least 0.5 inches in previous 2 days; Damp is everything in between.

<sup>2</sup> A slightly lower proportion of 2017 samples were collected in dry conditions than the previous five years, with increased focus on sampling following rain events.

### 4.3 Summary of water quality, 2013-2017

A summary of water quality results collected from the last five years is shown in Table 4-5.

**Table 4-5. Summary of water quality, Mystic River/Alewife Brook, 2013 - 2017.**

Parameter		Water Quality Guideline or Standard	Alewife Brook				Upper Mystic				Lower Mystic Basin				Malden River				Mystic Mouth			
			Mean ± SD	% meeting guideline	Range	n	Mean ± SD	% meeting guideline	Range	n	Mean ± SD	% meeting guideline	Range	n	Mean ± SD	% meeting guideline	Range	n	Mean ± SD	% meeting guideline	Range	n
Surface Temperature (°C) <sup>1</sup>	Summer	< 28.3	18.3 ± 4.1	99.7	6.6 - 28.4	322	21.3 ± 4.1	99.2	8.3 - 28.5	376	21.2 ± 4.4	99.7	8.4 - 28.8	294	21.5 ± 4.0	98.9	8.2 - 29.4	89	18.4 ± 2.5	100.0	10.6 - 24.4	232
	Winter		5.5 ± 1.9	100.0	3.3 - 9.3	25	3.1 ± 2.2	100.0	-0.1 - 8.0	62	3.8 ± 2.5	100.0	0.1 - 10.1	45	7.9 ± 0.3	100.0	7.7 - 8.2	2	3.2 ± 2.0	100.0	0.2 - 7.4	33
Bottom water dissolved oxygen (mg/L) <sup>1</sup>	Summer	> 5.0	4.6 ± 2.2	23.8	1.7 - 8.8	21	5.7 ± 2.4	64.6	0.6 - 11.4	246	6.3 ± 2.7	66.7	0.6 - 14.3	288	4.5 ± 2.8	43	0.2 - 12.1	86	6.9 ± 1.2	95.7	3.5 - 12.7	209
	Winter	> 5.0	10.3 ± 1.2	100.0	8.9 - 11.6	4	11.6 ± 0.8	100.0	10.2 - 13.6	27	10.4 ± 2.3	95.6	1.5 - 13.6	45	11.0 ± 0.2	100.0	10.8 - 11.1	2	10.2 ± 0.8	100.0	7.8 - 11.6	33
pH <sup>6</sup> (S.U.)		6.5-8.3 (8.5 marine)	7.2 ± 0.4	98.3	6.1 - 8.4	573	7.6 ± 0.6	91.0	6.5 - 9.6	1014	7.6 ± 0.7	80.5	6.0 - 9.4	1005	7.7 ± 0.7	80.9	6.7 - 9.2	257	7.8 ± 0.3	99.5	6.3 - 8.3	749
Water clarity	Total Suspended Solids (mg/L)	NS	ND	-	ND		5.0 ± 5.2	-	0.3 - 53.4	242	6.5 ± 3.7	-	0.8 - 23.3	109	ND	-	ND		3.7 ± 2.5	-	1.0 - 19.6	234
	Secchi depth (m) <sup>3</sup>	NS	0.5 ± 0.1	-	0.4 - 0.8	26	1.1 ± 0.5	-	0.4 - 2.5	152	0.9 ± 0.4	-	0.2 - 3.0	374	0.8 ± 0.3	-	0.2 - 1.5	124	2.0 ± 0.8	-	0.2 - 4.2	275
	Turbidity (NTU)	NS	10.3 ± 7.1	-	0.3 - 44.9	282	6.9 ± 5.5	-	0.4 - 54	733	8.7 ± 6.0	-	0.3 - 68.5	771	10.0 ± 7.7	-	0.6 - 95.2	251	6.1 ± 3.6	-	0.4 - 58.6	700

For footnotes, see following page.

**Table 4-5. Summary of water quality, Mystic River/Alewife Brook, 2013 - 2017, continued.**

Parameter	Water Quality Guideline or Standard	Alewife Brook				Upper Mystic				Lower Mystic Basin				Malden River				Mystic Mouth				
		Mean ± SD (95% CI)	% meeting guideline	Range	n	Mean ± SD (95% CI)	% meeting guideline	Range	n	Mean ± SD (95% CI)	% meeting guideline	Range	n	Mean ± SD (95% CI)	% meeting guideline	Range	n	Mean ± SD (95% CI)	% meeting guideline	Range	n	
Bacteria (counts/100mL) <sup>4</sup>	Fecal coliform	200 / 400 <sup>5</sup>	ND	-	ND		ND	-	ND		ND	-	ND		ND	-	ND		18 (15-21)	91.1	0 - 52000	710
	<i>E. coli</i>	126 / 235 <sup>5,6</sup>	711 (645-783)	18.2	10 - 727000	751	107 (97-119)	78.2	0 - 7700	696	62 (53-72)	79.4	0 - 13000	543	122 (86 - 173)	64.6	0 - 17300	147	ND	-	ND	
	<i>Enterococcus</i>	33 / 61 <sup>5</sup>	180 (158-204)	22.9	0 - 19900	757	21 (18-25)	70.5	0 - 19900	696	5 (4-6)	86.4	0 - 3260	543	13 (8-20)	78.1	0 - 9210	146	5 (4-6)	84.5	0 - 6590	710
Nutrients (µmol/L)	Phosphate	NS	ND	-	ND		0.5 ± 0.5	-	0.0 - 4.4	249	0.3 ± 0.3	-	0.0 - 2.3	112	ND	-	ND		0.8 ± 0.4	-	0.0 - 2.4	234
	Ammonium	NS	ND	-	ND		13.8 ± 10.9	-	0.1 - 43.2	244	8.9 ± 9.7	-	0 - 32.1	111	ND	-	ND		3.9 ± 3.8	-	0 - 20.9	228
	Nitrate+nitrite	NS	ND	-	ND		45.9 ± 30.9	-	0.1 - 290	249	27.9 ± 24.1	-	0 - 82.0	112	ND	-	ND		6.6 ± 7.6	-	0 - 52.9	234
Algae (µg/L)	Chlorophyll <i>a</i>	NS	ND	-	ND		10.1 ± 9.3	-	1.9 - 71.6	248	23.8 ± 24.5	78.3	2.0 - 156	112	ND	-	ND		4.8 ± 5.4	-	0.4 - 49.4	233

NS: no applicable numerical standard or guideline. ND: no data. n: number of samples.

<sup>1</sup> Summer (June-October), Winter (January-March).

<sup>2</sup> Median and standard error of the median are shown for pH, rather than arithmetic mean and standard deviation.

<sup>3</sup> MADPH standard of ≥1.2 meters applies only to public bathing beaches; there are none in the Upper Mystic/Alewife Brook.

<sup>4</sup> For bacterial data, 95% confidence intervals (CI) are provided rather than standard deviations

<sup>5</sup> First number is the all samples geometric mean limit - compare to the "Mean±SD" column (i.e., the Mean in that column is the geometric mean of all stations in that region for the specified indicator bacteria); the second number is the single sample standard - compare to the "% meeting guideline" column (i.e., the "% meeting guideline" column is the percentage of samples meeting the single sample standard). The "Range" column gives the range of single sample results.

<sup>6</sup> Either *E. coli* or *Enterococcus* are acceptable indicators for EPA, MADEP, and MADPH to assess suitability for swimming in freshwater.

#### 4.4 *Water quality results, 2017*

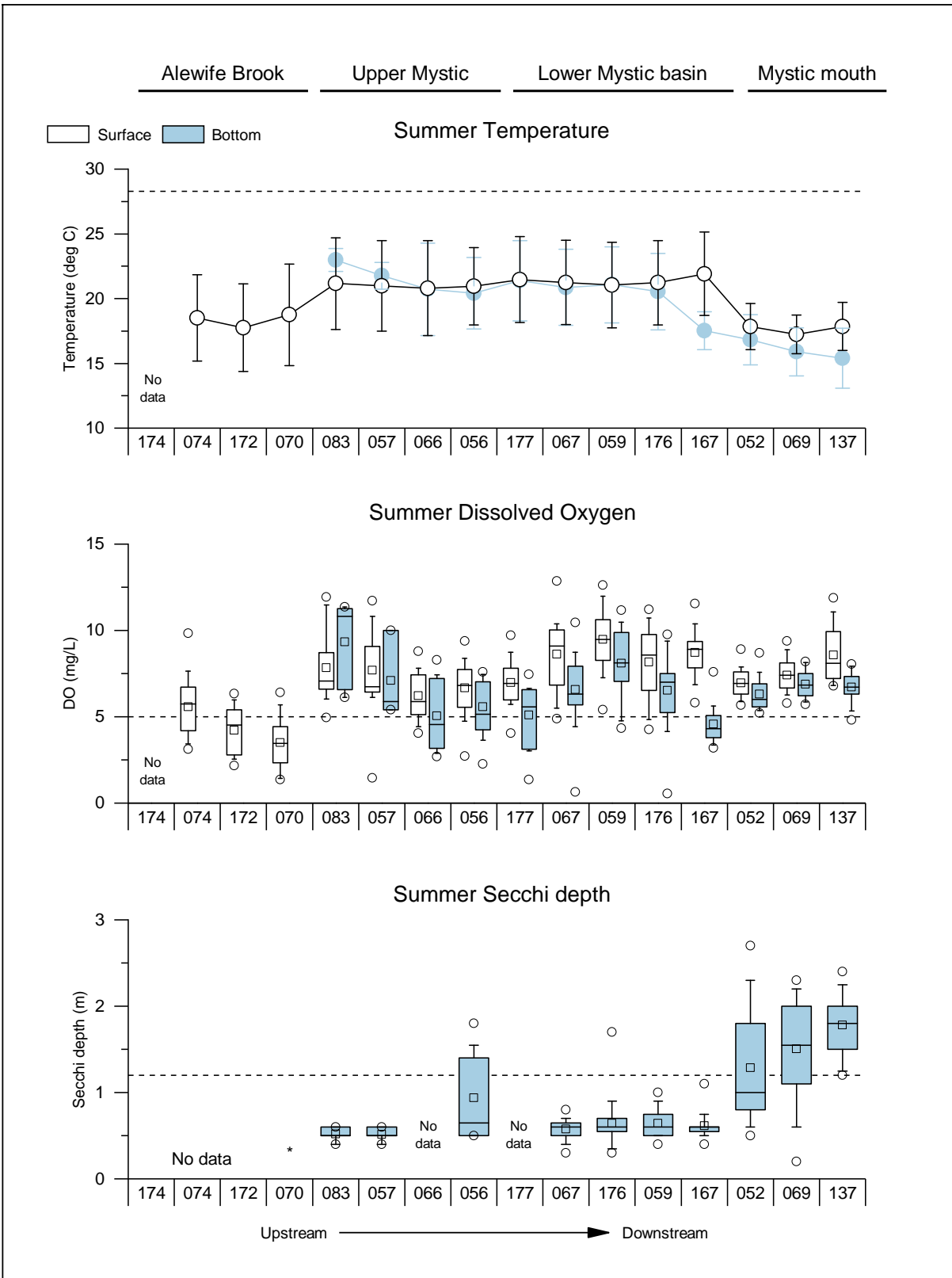
This section reports spatial trends for water quality parameters measured in the Mystic River/Alewife Brook in 2017.

##### 4.4.1 Physical measurements

**Temperature.** Summer mean temperatures for 2017 are shown for each sampling location in the uppermost graph of Figure 4-2. Surface and bottom temperatures are similar along the main stem of the Mystic, except on the marine side of the dam, where water depth is greater and harbor temperatures are lower. The lower bottom temperature at Amelia Earhart Dam (station 167) demonstrates the stratification due to salt water intrusion. The Mystic River has a much shallower depth than the Charles River, and exhibits generally warmer bottom temperatures. Stations in this region met water quality standards for temperature in 2017.

**Dissolved Oxygen.** Dissolved oxygen is shown in the center graph of Figure 4-2. Mean surface dissolved oxygen concentrations met the state standard of 5.0 mg/L at all locations in the Mystic and Malden Rivers. Surface dissolved oxygen in Alewife Brook is typically lower than the Mystic River, and is often below the state standard. Summer bottom water concentrations met the standard at all sites in 2017, with the exception of station 066 at the Boston Ave. bridge and the deeper station 167 at Amelia Earhart Dam. This represents an improvement in bottom water quality from 2016.

**Water clarity.** Water clarity is indicated by Secchi disk depth, which appears for each sampling location in the bottom graph of Figure 4-2. Water clarity for all but the Mystic River mouth is low, with all stations upstream of the Dam failing to meet the MADPH beach guideline of 1.2 meters. Alewife Brook and several of the Upper Mystic locations are often too shallow to measure Secchi depth.



**Figure 4-2. Summer temperature, dissolved oxygen, and Secchi depth, Mystic River, 2017.**

Dashed lines are State standards or guideline (maximum for temperature, minima for DO and Secchi). Station 174 was too shallow for accurate summer temperature and DO readings in 2017. Stations 174, 074, 172, 066, and 177 were typically too shallow for Secchi measurements in the summer months of 2017. Station 070 was clear to the bottom for all visits in 2017. Hollow squares on the DO and Secchi plots indicate the arithmetic mean.

#### 4.4.2 Nutrients, TSS and chlorophyll

Figures 4-3 through 4-6 show monthly average total nitrogen, ammonium, nitrate/nitrite, total phosphorus, orthophosphate, total suspended solids, and chlorophyll *a* at the upstream Mystic locations (083 upstream of Alewife Brook and 066 at Boston Ave.), downstream (167 at Amelia Earhart Dam) and river mouth (137).

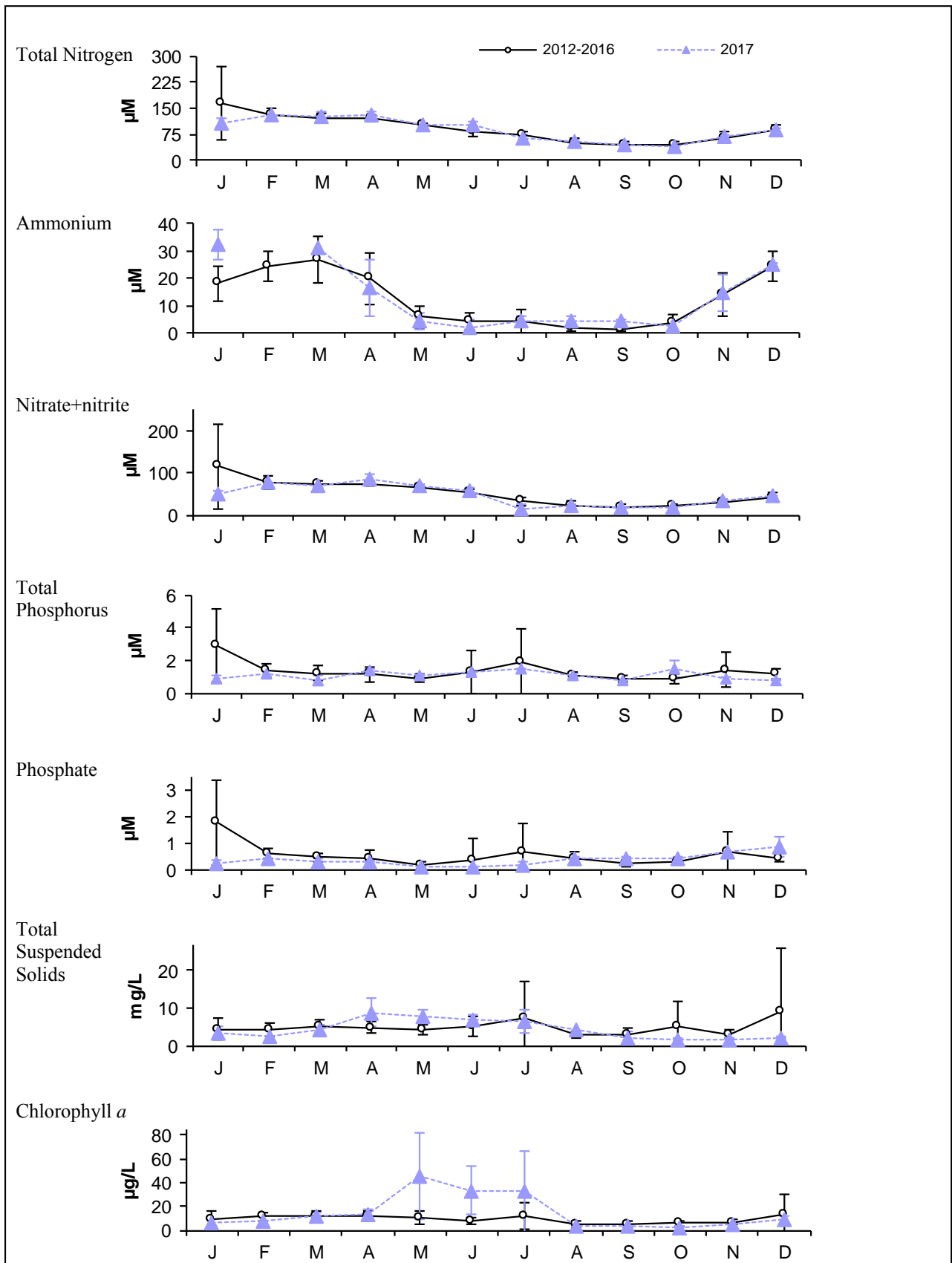
Regionally, ammonium, nitrate/nitrite, and phosphate results show relatively strong seasonal effects, as biological activity increases during the summer months. In winter months, when biological nutrient uptake is low, ammonium concentrations in the Upper Mystic are double the concentration in the Charles Basin.

At upstream locations 083 and 066, nutrients, TSS and chlorophyll results in 2017 were largely similar to the previous five-year average (2012-2016). Phosphate concentrations at these locations were generally lower than the previous five-year average, until elevated values were observed in late fall. Chlorophyll *a* values above the previous five-year average were observed at all three freshwater locations from May through July.

These chlorophyll *a* results are indicative of algae growth in early summer in the Mystic River, followed by a confirmed cyanobacteria bloom in late June through the month of July. At station 167, elevated total nitrogen and total phosphorus in June and July quickly crashed below the five-year averages in August, as the algae bloom used up available nutrients. Chlorophyll *a* values remained at or below the five-year averages at all stations after the bloom event.

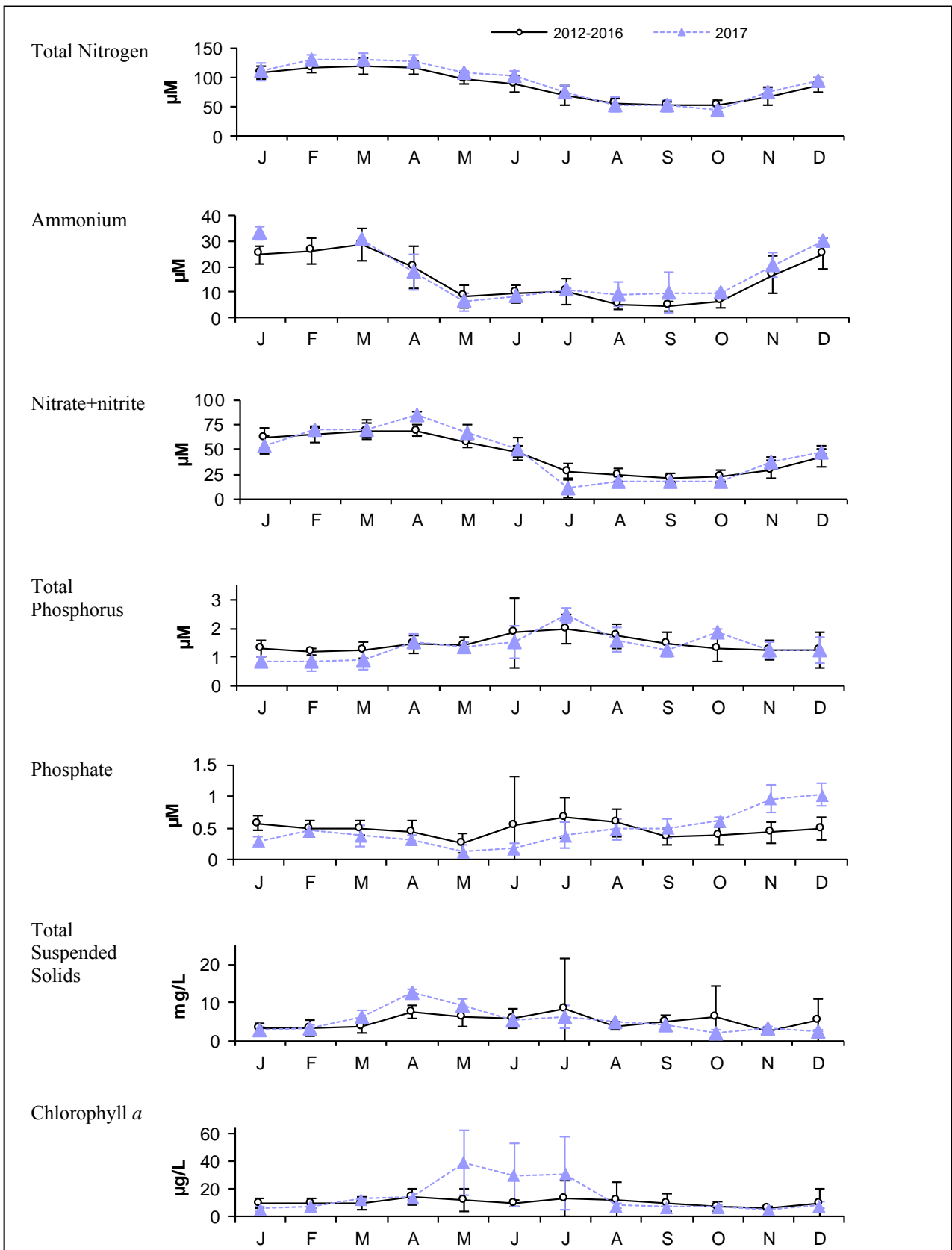
At marine station 137 in the Mystic mouth, nutrients generally aligned with the seasonal pattern and magnitude seen in the previous five years. Elevated chlorophyll *a* was observed in July, at the same time as the reported bloom on the freshwater side of Amelia Earhart Dam. Total nitrogen and total phosphorus concentrations above the five-year averages were observed in the fall of 2017.





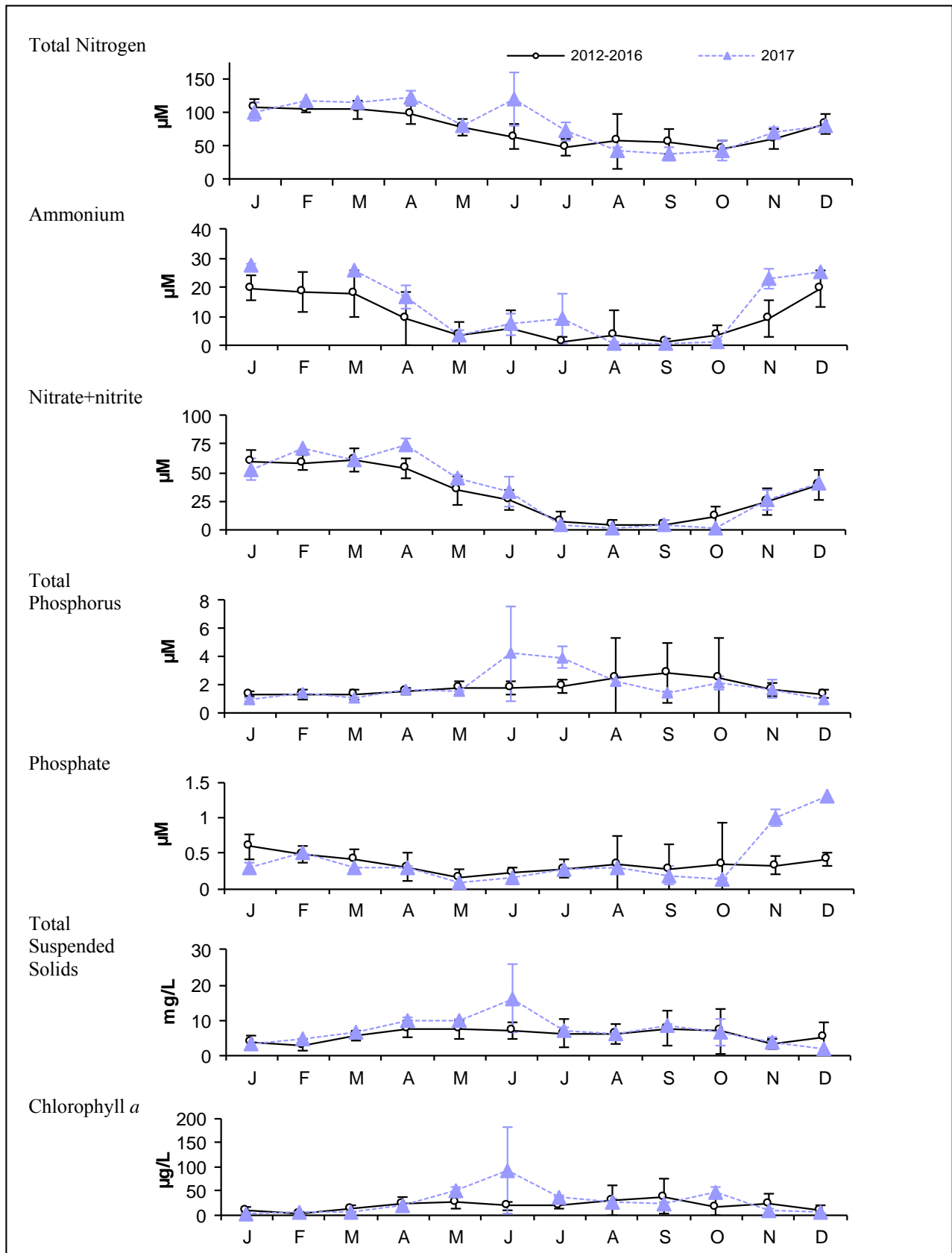
**Figure 4-3. Monthly average nutrients, TSS and Chlorophyll, 2012 – 2016 and 2017, Station 083, Mystic upstream of Alewife Brook.**

Error bars are  $\pm 1$  SD. Note different scales than for Figures 4-4, 4-5 and 4-6 for most parameters.



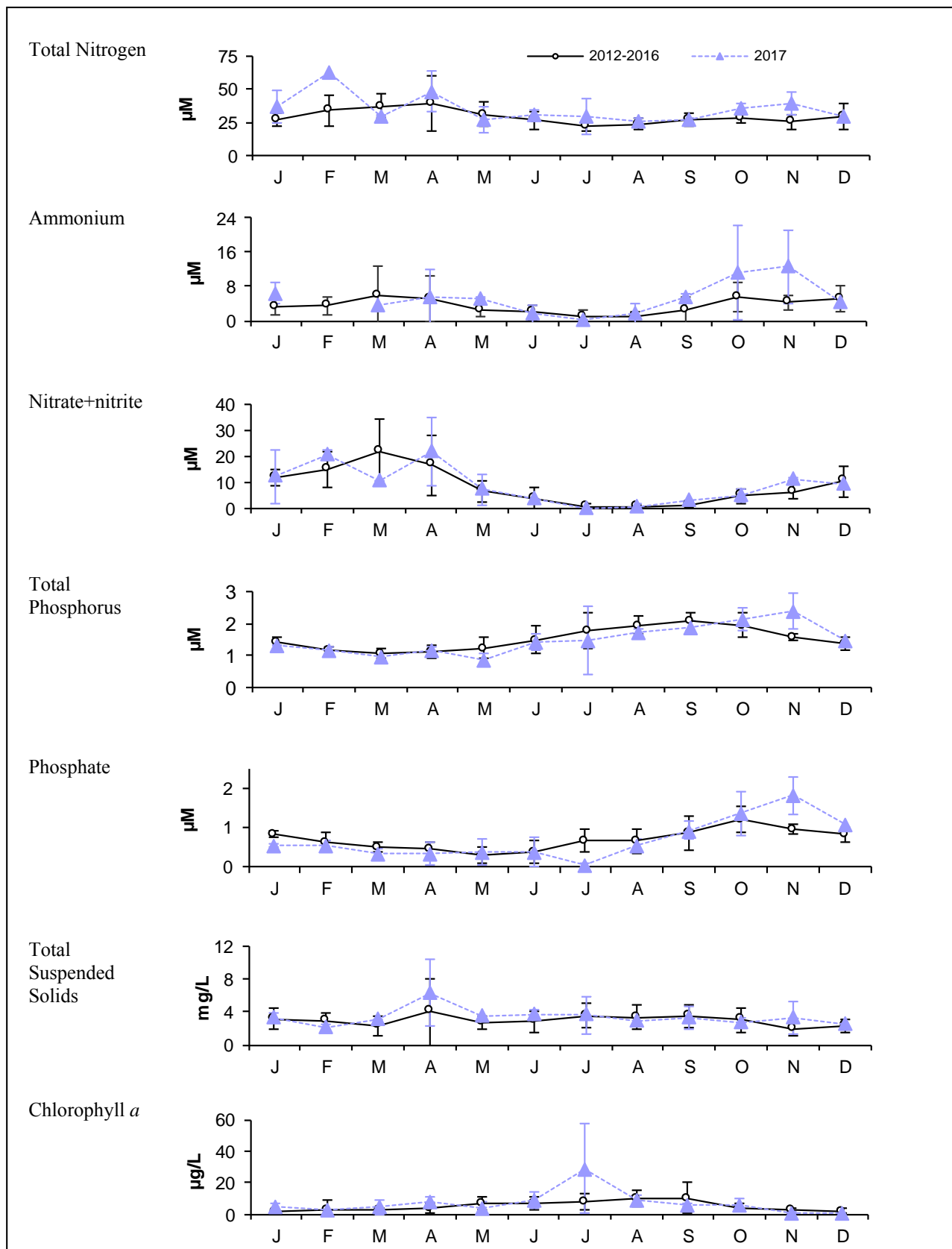
**Figure 4-4. Monthly average nutrients, TSS and Chlorophyll 2012 – 2016 and 2017, Station 066, Boston Ave.**

Error bars are  $\pm 1$  SD. Note different scales than Figures 4-3, 4-5 and 4-6 for most parameters.



**Figure 4-5. Monthly average nutrients, TSS and Chlorophyll 2012 – 2016 and 2017, Station 167, Amelia Earhart Dam (upstream/freshwater).**

Error bars are ± 1 SD. Note different scales than Figures 4-3, 4-4 and 4-6 for most parameters.



**Figure 4-6. Monthly average nutrients, TSS and Chlorophyll 2012 – 2016 and 2017, Station 137, Mystic River mouth (marine).**

Error bars are  $\pm 1$  SD. Note different scales than Figures 4-3, 4-4 and 4-5 for most parameters.

#### 4.4.3 Bacterial water quality

Figure 4-7 shows the bacterial water quality at each location sampled in the Mystic River and Alewife Brook for 2017 for dry, damp, and wet weather. The rainfall conditions are derived, on a station by station basis, from the nearest rain gauge. For this area, the two gauges in use are the BWSC Charlestown gauge and the USGS Fresh Pond gauge. The uppermost graph in the figure shows percentile plots of *Enterococcus* counts for each location, arranged from upstream to downstream for 2017. The center graph shows percentile plots of *E. coli*, which is only monitored in the freshwater portion of the Mystic River, and the bottom graph fecal coliform, which is only monitored in the marine portion of the Mystic River in place of *E. coli*.

As shown in Figure 4-7, all locations in Alewife Brook consistently failed to meet both *Enterococcus* and *E. coli* geometric mean standards in dry, damp, and wet weather in 2017, even though CSOs in Alewife Brook activated only for approximately 10 total hours in 2017 (Table 4-3). Bacteria concentrations at stations 083 (Mystic Lakes outlet, before the confluence with the Alewife Brook) and 057 (Alewife Brook/Mystic River confluence) exhibit a similar distribution between weather conditions, demonstrating little to no influence of Alewife Brook contamination on the Mystic River. Fecal coliform results from the three marine stations all met the fecal coliform geometric mean standard in all conditions. Station 067 by the MWR205A outfall met the *Enterococcus* standard in all conditions, but did not meet the *E. coli* standards in wet conditions. However, *Enterococcus* samples from wet weather were just over the geometric mean standard at station 052. While the Mystic River also received intensive sampling following storm events, the sample ratios between weather conditions was more balanced overall than the Charles River in 2017. Chapter 5 examines bacteria concentrations in Alewife Brook and Mystic River after several storms, both with and without CSO activations.

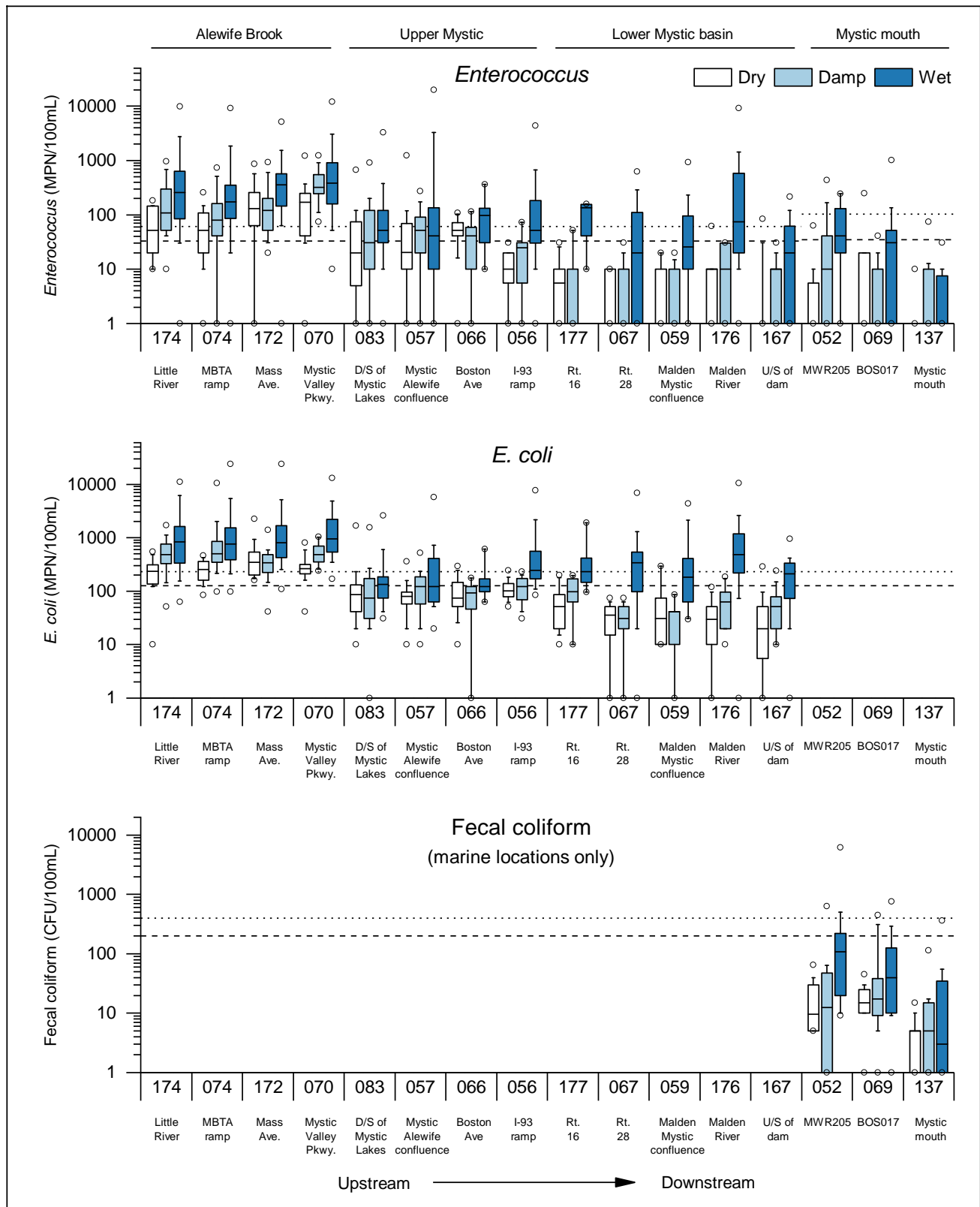
Geometric means for each indicator for 2012 - 2016 and 2017 appear in Table 4-6, for all weather conditions combined. Overall, geometric means at most locations in the Mystic River met state standards for both bacteria indicators. Station 056 near Medford Square was the only station that exceeded the *E. coli* standard, but it met the *Enterococcus* standard. The Malden River station 176 met state standards for both indicators. Annual geometric means did not meet standards at the four Alewife Brook stations despite geometric means that were substantially lower in 2017 compared to the five-year historical average. Like the Charles River, *E. coli* counts are consistently higher than *Enterococcus* at all stations.

The three Mystic mouth stations downstream of Amelia Earhart Dam met standards for both *Enterococcus* and fecal coliform, with 2017 geometric means lower than the five-year average. This stations include 052 near Somerville Marginal CSO outfall MWR205, and 069 near CSO outfall BOS017.

The spatial and temporal change in *Enterococcus* concentrations in Alewife Brook and the Mystic River appear in Figure 4-8 through Figure 4-10. Figure 4-8 shows the impact of rainfall on the four river reaches on *Enterococcus* densities in 2017, along with locations near CSO outfalls. As seen in previous years, with the exception of Alewife Brook, which does not meet standards in any condition, the Mystic River reaches meet the *Enterococcus* standard in dry and damp rainfall conditions. The Lower Mystic

Basin and Mystic Mouth meets in all conditions. In the Alewife, even the Little River station 174 upstream of CSOs – as well as all other stations – fails to meet standards in dry, damp, and wet weather, suggesting persistent contamination along the length of the Brook not necessarily tied to CSOs. Station 052 at the Amelia Earhart Dam and the treated Somerville Marginal CSO facility outfall does meet standards in dry, damp, and heavy rainfall conditions but not in light rain.

Results in Figures 4-9 (Alewife Brook) and 4-10 (remainder of the Mystic) are grouped by phases of the Long Term CSO Plan improvements and include the geometric mean counts in each rainfall condition. Figure 4-9 shows minimal changes in *Enterococcus* counts in the Alewife, with slight improvements in 2016-2017, the period following completion of all LTCP-related construction in this region. *Enterococcus* results in Figure 4-10 show slight improvement over time in the Mystic River in dry and wet weather since the early 1990s, particularly in dry and light rain conditions. Changes in heavy rain conditions appear to be minimal.



**Figure 4-7. Indicator bacteria concentrations, Mystic River/Alewife Brook, 2017.** Dashed lines show MADEP *Enterococcus* and *E. coli* and the former fecal coliform geometric mean standards. Dotted lines show the single sample standards. Note that freshwater and marine *Enterococcus* standards differ. *E. coli* testing was discontinued in 2007 in marine waters for methodological reasons. Dry: no rainfall for previous 3 days; Wet: at least 0.5 inches in previous 2 days; damp is everything in between. Rainfall conditions are derived from either the BWSC Charlestown or USGS Fresh Pond rain gauges. “D/S”: downstream; “U/S”: upstream.

**Table 4-6. Geometric mean indicator bacteria, Mystic River/Alewife Brook, 2012 – 2016 and 2017.**

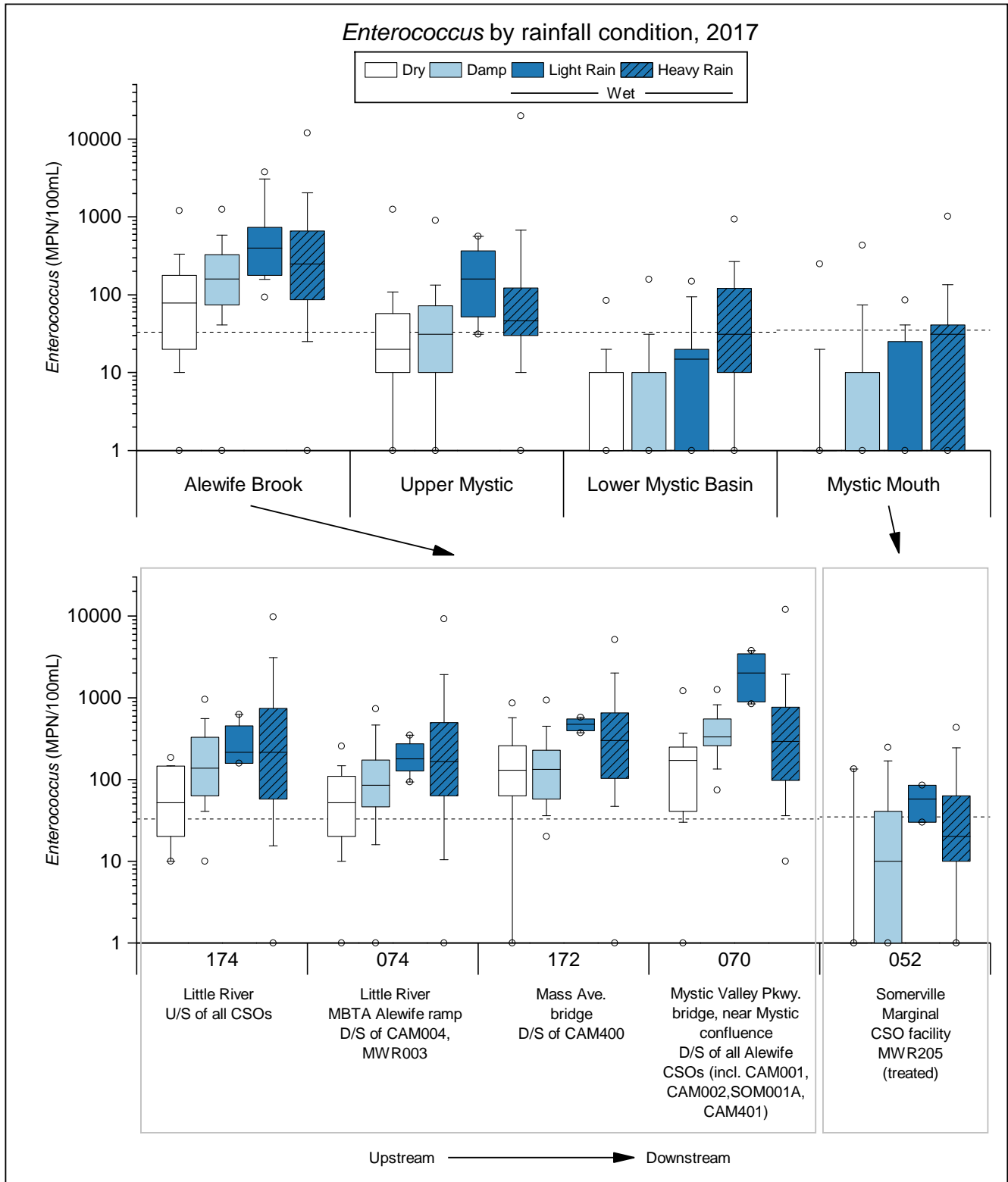
Stations designated for shoreline sampling (weekends or unsafe boating conditions) are shaded.

Station	Location	Surface or Bottom	Number of samples		<i>Enterococcus</i> (95% CI) counts/100 mL DEP limit: 33 counts/100 mL <sup>2</sup>		<i>E. coli</i> <sup>1</sup> (95% CI) counts/100 mL DEP limit: 126 counts/100 mL	
			2012 – 2016	2017	2012 – 2016	2017	2012 – 2016	2017
174	Cambridge, Little River, upstream of Rt. 2 and off ramp to Alewife T station	S	152	57	177 (129-243)	122 (78-189)	823 (654-1036)	471 (343-646)
074	Cambridge, Little River, at off ramp to Alewife T station	S	153	57	143 (108-191)	84 (51-138)	765 (618-947)	561 (418-753)
172	Arlington, Alewife Brook, upstream of Massachusetts Ave bridge, midchannel	S	153	57	238 (182-310)	156 (101-240)	750 (603-932)	549 (409-737)
070	Arlington, Alewife Brook, off Mystic Valley Parkway bridge	S	153	57	273 (208-358)	273 (185-403)	816 (647-1028)	620 (473-814)
083	Medford, upstream of confluence of Mystic River and Alewife Brook	S	241	75	17 (13-22)	31 (20-47)	71 (57-87)	96 (74-125)
057	Medford, confluence of Mystic River and Alewife Brook	S	118	51	31 (22-44)	36 (20-66)	132 (103-168)	113 (83-155)
066	Medford, Mystic River, Boston Ave bridge	S	130	25	20 (15-28)	38 (22-66)	131 (108-158)	81 (51-128)
056	Medford, Mystic River, upstream of I-93 bridge	S	119	51	11 (7-18)	24 (14-40)	191 (146-249)	184 (136-249)
177	Medford, Downstream of Rt. 16 bridge, mid-channel	S	125	24	9 (6-13)	6 (2-15)	216 (165-284)	90 (57-143)
067	Medford, Mystic River, Rt. 28 bridge	S	119	50	4 (3-6)	6 (3-11)	47 (34-64)	60 (34-104)
059	Everett, confluence of Mystic and Malden Rivers	S	116	31	4 (3-6)	6 (2-13)	36 (26-49)	61 (32-115)
176	Malden River, upstream of Rt. 16 bridge	S	116	51	10 (6-17)	17 (9-34)	119 (80-177)	100 (56-177)
167	Medford, Mystic River, upstream side of Amelia Earhart Dam	S	129	42	4 (3-6)	4 (2-7)	51 (38-69)	36 (21-60)
052 <sup>2</sup>	Somerville, Mystic River, near Somerville Marginal CSO facility (MWR205) – marine	S	154	37	14 (9-22)	12 (5-24)	75 (50-112)	35 (19-64)
		B	74	10	6 (4-10)	4 (1-13)	20 (12-32)	8 (3-19)
069 <sup>2</sup>	Charlestown, near Schrafft's Center at BOS-017 outfall - marine	S	154	37	11 (7-16)	7 (3-14)	57 (40-81)	36 (22-57)
		B	69	7	2 (1-4)	1 (0-4)	9 (6-13)	5 (1-17)
137 <sup>2</sup>	Mystic River, upstream of Tobin Bridge – marine/Inner Harbor	S	118	23	2 (2-3)	1 (0-3)	12 (9-16)	8 (3-16)
		B	118	23	1 (0-1)	1 (0-2)	2 (1-3)	1 (1-3)

<sup>1</sup>Results in italics are fecal coliform, not *E. coli*.

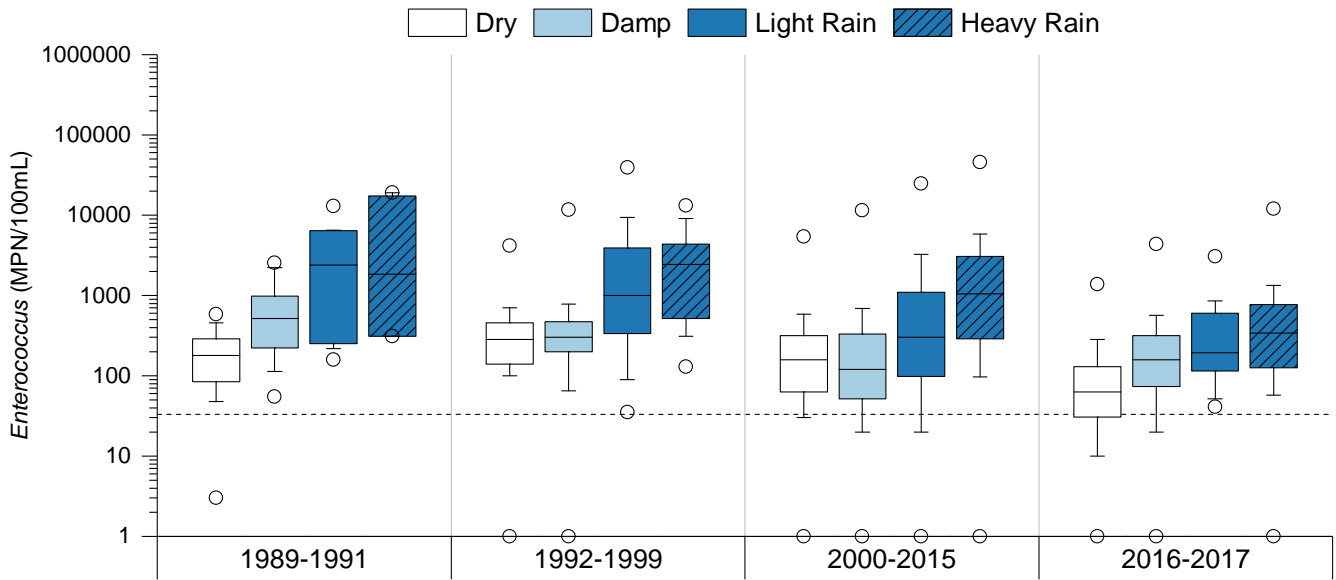
<sup>2</sup> Geometric mean limit for *Enterococcus* is 35 MPN/100 mL in marine water.





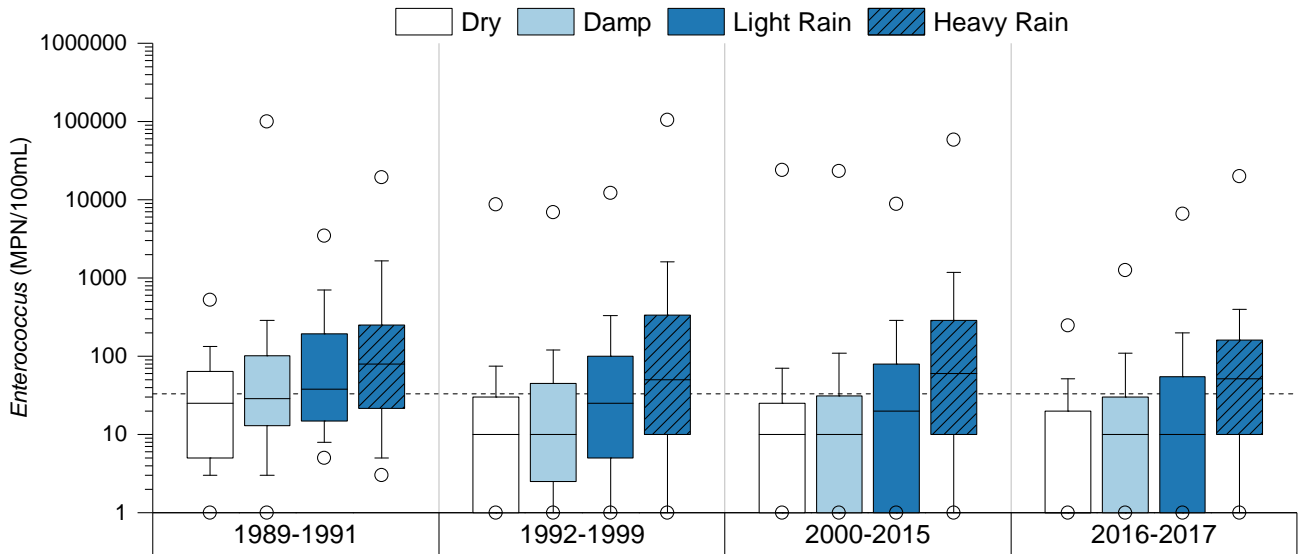
**Figure 4-8. Enterococcus by rainfall condition, Mystic River/Alewife Brook, 2017.**

Dotted line shows State geometric mean standard of 33 MPN/100 mL for freshwater (Mystic mouth and station 052 show 35 MPN/100 mL State standard for saltwater). Rainfall is from the BWSC Charlestown or USGS Fresh Pond gauge. “Dry”: no rainfall for previous 3 days; “Heavy”: more than 0.5 inches in previous 3 days; “Damp” and/or rain distant in time: any rain < 0.15 inches at least two or three days previous to sampling and/or 0.1 inches in previous day; “Light rain”: between 0.1 and 0.5 inches in previous day and/or between 0.15 and 0.5 in two previous days. “D/S”: downstream; “U/S”: upstream.



**Figure 4-9. *Enterococcus* over time, Alewife Brook by phase of Long Term CSO Plan and rainfall condition.**

Dotted line shows State geometric mean standard. Data includes results for stations 174, 172, 074 and 070. Rainfall is NOAA rainfall from Logan airport. “Dry”: no rainfall for previous 3 days; “Heavy”: more than 0.5 inches in previous 3 days; “Damp” and/or rain distant in time: any rain < 0.15 inches at least two or three days previous to sampling and/or 0.1 inches in previous day; “Light rain”: between 0.1 and 0.5 inches in previous day and/or between 0.15 and 0.5 in two previous days.



**Figure 4-10. *Enterococcus* over time, Mystic River by phase of Long Term CSO Plan and rainfall condition.**

Dotted line shows State geometric mean standard. Data includes results for all Mystic River stations excepting Alewife Brook. Rainfall is NOAA rainfall from Logan airport. “Dry”: no rainfall for previous 3 days; “Heavy”: more than 0.5 inches in previous 3 days; “Damp” and/or rain distant in time: any rain < 0.15 inches at least two or three days previous to sampling and/or 0.1 inches in previous day; “Light rain”: between 0.1 and 0.5 inches in previous day and/or between 0.15 and 0.5 in two previous days.

#### 4.5 Summary of Mystic River/Alewife Brook water quality

In general, bacterial water quality in the Mystic River and Alewife Brook was either improved or unchanged from 2016. *Enterococcus* and *E. coli* counts in 2017 were lower than or similar to those in the previous five years of 2012 – 2016, despite an increased focus on sampling consecutive days after heavy rain. Bacteria concentrations in the Mystic River met standards for much of the upper and lower Mystic Basin and Mystic River mouth in dry and damp weather, but did not meet limits in wet weather conditions at most locations. Even though Alewife Brook CSOs activated for only approximately 10 hours in 2017, bacteria concentrations fail to meet standards in any weather conditions. Additionally, station 174 in the Little River, upstream of all Alewife CSOs, did not meet standards in any weather condition, suggesting a non-CSO contamination problem that is affecting the entire length of the Brook.

With the exception of Alewife Brook, all locations in the Mystic River, with a few exceptions, met *Enterococcus* and *E. coli* geometric mean limits in dry and damp conditions. While the Alewife did not meet *Enterococcus* or *E. coli* standards in dry or wet weather, conditions in the main stem downstream of the Alewife/Mystic confluence suggest a limited influence of Alewife Brook on bacterial water quality in the Mystic River.

In 2017, surface DO conditions met standards at all Mystic River stations. Bottom water DO concentrations were improved from 2016, meeting the state standard at most locations. Clarity results were generally poor, except in the marine portion downstream of the Amelia Earhart Dam.

2017 nutrient levels were largely similar to previous years, with monthly concentrations near long term averages. Nutrient sample results highlight a cyanobacteria bloom event in the Mystic River in late June through July, after which nutrient results were generally lower than the autumn historical averages.

## 5 2017 Storm Case Studies

Beginning in 2017, MWRA instituted a comprehensive storm sampling program building on the routine monitoring program which has been in place since 1989. The two primary enhancements are sampling on weekends in addition to weekdays during and after storm events to minimize data gaps, and the utilization of a subset of sampling locations that can be sampled from shore in the event of inclement weather that would prevent, for safety reasons, the usual method of sampling from boat. Finally, storm sampling was given a high priority, so sampling in the aftermath of a storm frequently “bumped” other sampling projects into lower places in the queue.

As a result, seven of the ten largest storms in 2017 as measured by estimated CSO volume<sup>4</sup> discharged were sampled for an extended period of time after the storm. For the most part, this period was five days, but occasionally longer. Of the three remaining storms in the top ten, two were before the field season began, and one coincided with Sail Boston, when security measures prevented access to the Central Laboratory on Deer Island, and a decision was made – long before the storm hit – not to accept samples from both internal and external users of the lab for that weekend.

Each of the following sections will examine a storm and the bacterial sampling results from the days following the storm. Typically, bacteria samples are collected in the morning. Tables will present the rainfall characteristics of the storm and the raw bacteria counts at each sampling location. For the latter, any results in **bold** indicate counts higher than the state single sample standard for that indicator.

### 5.1 April 4 and 6, 2017: Mystic River and Alewife Brook

A moderate storm on April 4 was followed by a similar, slightly more intense storm on April 6. For both of these storms, the MWRA collected samples in the Mystic River and Alewife Brook. The only CSO discharges were from the April 6 storm, which by estimated CSO volume discharged was the seventh largest storm in 2017 (note that this metric includes CSO discharges to all waters, not just the Variance waters). The Somerville Marginal CSO facility discharged on April 6. Treated effluent was discharged from the facility to the marine (MWR205) outfall. As noted previously in this report, the MWR205 marine discharge is not to Variance waters, although results for selected marine stations in the Mystic mouth are included in this report. Station 052 is downstream of MWR205. Somerville’s public notification web site<sup>5</sup> also shows a discharge at SOM001A on the evening of April 6 (at the time of this report, the Somerville annual NPDES report is not available, so the discharge could not be confirmed). The MWRA hydraulic model does not indicate a SOM001A discharge during the storm.

The April 3 data may have been affected by a large storm several days previous ending on April 1, with total rainfall ranging from 2.17 to 2.38 inches. In that storm, MWR205 and MWR205A (the freshwater

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<sup>4</sup> CSO discharge estimates from MWRA’s sewer system hydraulic model and CSO treatment facility meter records. See MWRA (2018).

<sup>5</sup> City of Somerville, Alewife Brook Combined Sewer Overflow (CSO) Control.  
<https://www.somervillema.gov/cso>

outfall for the Somerville Marginal CSO facility; station 067 is downstream of this outfall) discharged, but there were no untreated CSOs. The April 1 storm was the third largest storm in 2017 in terms of CSO volume contributed. Still, by April 3, *Enterococcus* results met standards (single sample of 61 colonies per 100mL) at most locations except for two in the Alewife Brook. *E. coli* results were slightly worse, but exceedances of the standard (235 col/100mL) were confined to Alewife Brook.

Samples on April 4 were collected during the storm and were fairly similar to results from the previous day, except for an elevated *E. coli* sample at station 056 near the I-93 bridge. April 5 saw elevated levels of both indicators at all locations in the Alewife Brook and at some locations in the Lower Mystic Basin (including 067, which did not see a CSO discharge that day).

April 6 saw a storm that lasted much of the day, with CSO discharges at MWR205, and possibly at SOM001A as indicated above. Note that stations 174, 074, and 172 are upstream of any CSOs that discharged during this storm. All samples were collected at the beginning of the storm, so *Enterococcus* counts were surprisingly low, with only one exceedance of the state standard (including none at 067 and 052) outside of Alewife Brook. There was an elevated sample of *E. coli* at 067 although there was no discharge at MWR205A, and three of the four locations in the Alewife Brook also did not meet standards.

The majority of storm impacts were seen on April 7, where there were a number of exceedances – most stations (including all the Alewife Brook stations upstream of CSOs) had high *Enterococcus* and all stations had high counts of *E. coli*. Counts dropped on April 8, most notably for *Enterococcus*. From April 10-12, there was a single high count of *Enterococcus*, and all high counts of *E. coli* were confined to Alewife Brook.

Note that at station 052 by the MWR205 outfall, there were no exceedances of the *Enterococcus* standard during this monitoring period.

**Table 5-1. Rainfall Characteristics for the April 4 and 6, 2017 Storms.**

Gauge	Storm Start (EST)	Storm End (EST)	Duration (hrs)	Total Rainfall (in)	Peak Intensity (in/15mins)	Peak Intensity (in/hr)
Charlestown (BWSC)	4/4 0315	4/4 2215	19	0.9	0.05	0.15
	4/6 0815	4/6 2045	12.5	1.11	0.10	0.25
Fresh Pond (USGS)	4/4 0300	4/4 2245	19.75	0.89	0.04	0.13
	4/6 0815	4/6 2030	12.25	1.09	0.12	0.30

**Table 5-2. CSO Discharges in the April 4 and 6, 2017 Storm, from MWRA Meter Records and MWRA Hydraulic Model Output.**

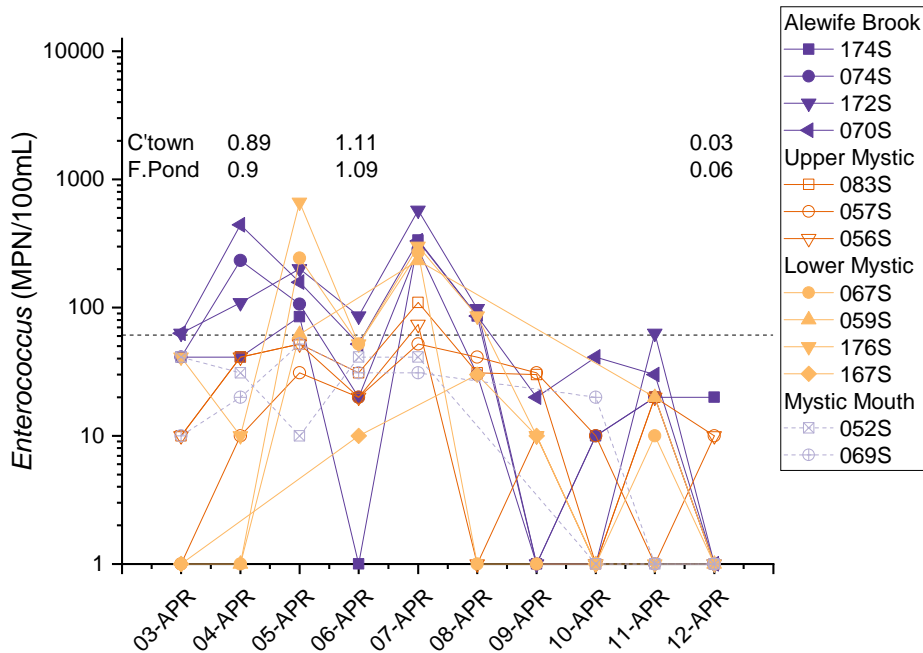
Outfall	Source of Discharge Estimate	Discharge Date	Duration (hours)	Volume (MG)
MWR205	Meter	4/6/17	7.03	3.15
SOM001A	Community meter <sup>1</sup>	4/6/17		

<sup>1</sup> Reported by Somerville (<https://www.somervillema.gov/cso>), but MWRA hydraulic model does not indicate a discharge. The Somerville public notification web page does not provide duration or volume information.

**Table 5-3. *Enterococcus* and *E. coli* results from the Mystic River and Alewife Brook, April 3-12, 2017.**

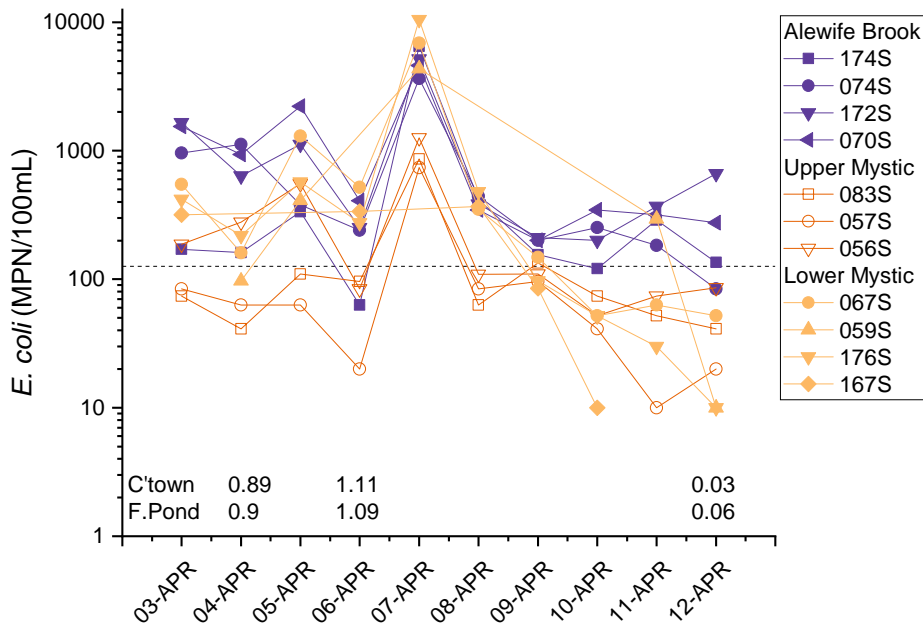
	Single Sample Standard	Monitoring Location												
		174	074	172	070	083	057	056	067	059	176	167	052	069
<i>Enterococcus</i>														
4/3	61	41	41	<b>63</b>	<b>63</b>	10	1	10	1		41	1	41	10
4/4	61	41	<b>233</b>	<b>109</b>	<b>443</b>	41	10	41	1	1	10		31	20
4/5	61	<b>85</b>	<b>106</b>	<b>201</b>	<b>158</b>	52	31	52	<b>243</b>	<b>62</b>	<b>663</b>		10	52
4/6	61	1	20	<b>86</b>	52	31	20	20	52		52	10	41	31
4/7	61	<b>336</b>	<b>285</b>	<b>573</b>	<b>331</b>	<b>110</b>	52	74	<b>269</b>	<b>233</b>	<b>301</b>		41	31
4/8	61	<b>86</b>	30	<b>98</b>	<b>86</b>	31	41	1	1		<b>86</b>	30		
4/9	61	1	1	1	20	30	31	10	1		10	10		
4/10	61	10	10	1	41	1	10	1	1		1	1	1	20
4/11	61	20	20	<b>63</b>	30	20	1	20	10	20	1		1	1
4/12	61	20	1	1	1	1	10	10	1	1	1		1	1
<i>E. coli</i>														
4/3	235	171	<b>960</b>	<b>1650</b>	<b>1540</b>	74	84	187	547					
4/4	235	161	<b>1120</b>	<b>637</b>	<b>932</b>	41	63	<b>278</b>	160					
4/5	235	<b>335</b>	<b>379</b>	<b>1120</b>	<b>2220</b>	110	63	<b>554</b>	<b>1300</b>					
4/6	235	63	<b>240</b>	<b>253</b>	<b>408</b>	96	20	84	<b>520</b>					
4/7	235	<b>6490</b>	<b>3650</b>	<b>5170</b>	<b>4610</b>	<b>862</b>	<b>738</b>	<b>1260</b>	<b>6870</b>					
4/8	235	<b>416</b>	<b>441</b>	<b>384</b>	<b>345</b>	63	84	109	<b>350</b>					
4/9	235	155	201	211	201	134	96	110	148					
4/10	235	121	<b>253</b>	201	<b>345</b>	74	41	52	52					
4/11	235	<b>288</b>	183	<b>369</b>	<b>317</b>	52	10	74	63					
4/12	235	135	84	<b>663</b>	275	41	20	86	52					

Results in **bold** indicate samples that exceeded the single sample standard of 104 colonies/100mL for *Enterococcus* or 235 colonies/100mL for *E. coli*.



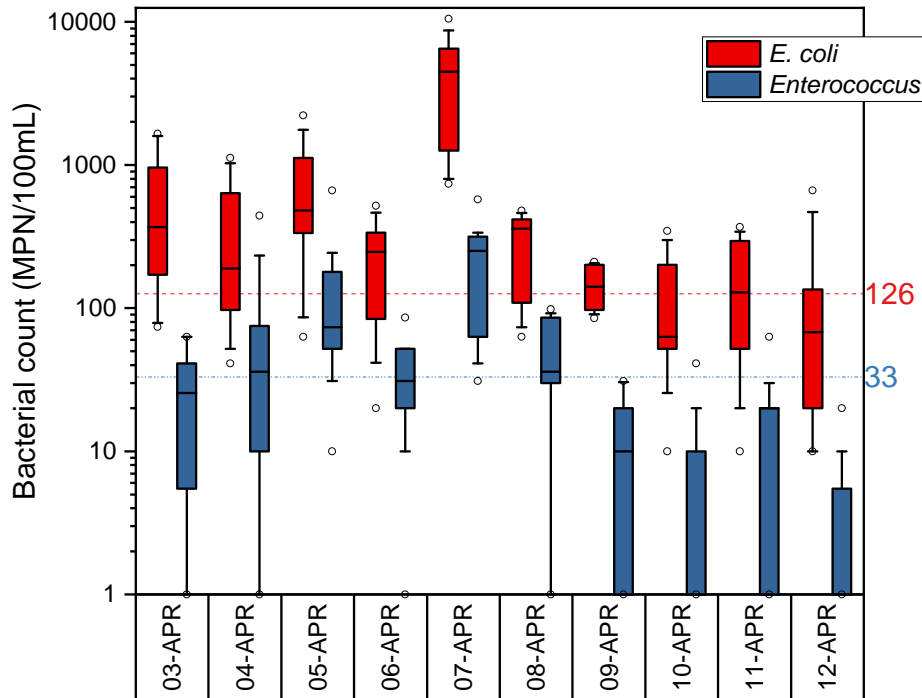
**Figure 5-1. Mystic River and Alewife Brook *Enterococcus* counts, April 3-12, 2017.**

Time series of *Enterococcus* counts before and after the April 4 and 6 storms. Dashed line is the MADEP single sample standard of 61 MPN/100mL. There were treated CSO discharges from MWR205 and MWR205A, and potentially untreated CSO from SOM001A during the April 6 storm (see text for potential SOM001A discharge). Rainfall (inches) from the BWSC Charlestown and USGS Fresh Pond gauges is shown above the day rain fell.



**Figure 5-2. Mystic River and Alewife Brook *E. coli* counts, April 3-12, 2017.**

Time series of *E. coli* counts before and after the April 4 and 6 storms. Dashed line is the MADEP single sample standard of 235 col/100mL. May 27 would be considered a baseline, dry weather day. There were treated CSO discharges from MWR205 and MWR205A, and potentially untreated CSO from SOM001A during the April 6 storm (see text for potential SOM001A discharge). Rainfall (inches) from the BWSC Charlestown and USGS Fresh Pond gauges is shown above the day rain fell.



**Figure 5-3. Mystic River and Alewife Brook bacteria samples by date, April 3-12, 2017.** Distribution plot of bacteria samples (both *Enterococcus* and *E. coli*) collected immediately before and after the April 4 and 6 storms. The dotted line shows the MA DEP *Enterococcus* standard and the dashed line the MA DEP *E. coli* standard.

### 5.2 April 25-26, 2017: Charles River

This storm was not one of the larger storms of 2017 in terms of total rainfall and peak intensity. No CSO was discharged to the Charles River from the Cottage Farm CSO facility, and neither the MWRA nor Cambridge hydraulic models<sup>6</sup> indicated any untreated CSO discharges. Therefore, any elevated levels of bacteria were from stormwater inputs or inputs upstream of the Watertown Dam.

Rain was observed at some gauges before sample collection on April 25; the varying start times of the storm at each rain gauge are shown in Table 5-3. However, rainfall impacts are clearly seen on April 26, when counts of both indicators are above standards at most locations. By April 28, most of the locations met standards.

Rain also fell on May 2 (totals ranged from 0.08 to 0.17 inches at the four rain gauges). No samples were taken that day, but impacts can be seen the next day, May 3 at some locations.

<sup>6</sup> City of Cambridge CSO NPDES Annual Report 2017. Available at: <https://www.cambridgema.gov/~media/Files/publicworksdepartment/stormwatermanagement/csoannualreports/ma01019742017csoreportcityofcambridge.pdf?la=en>



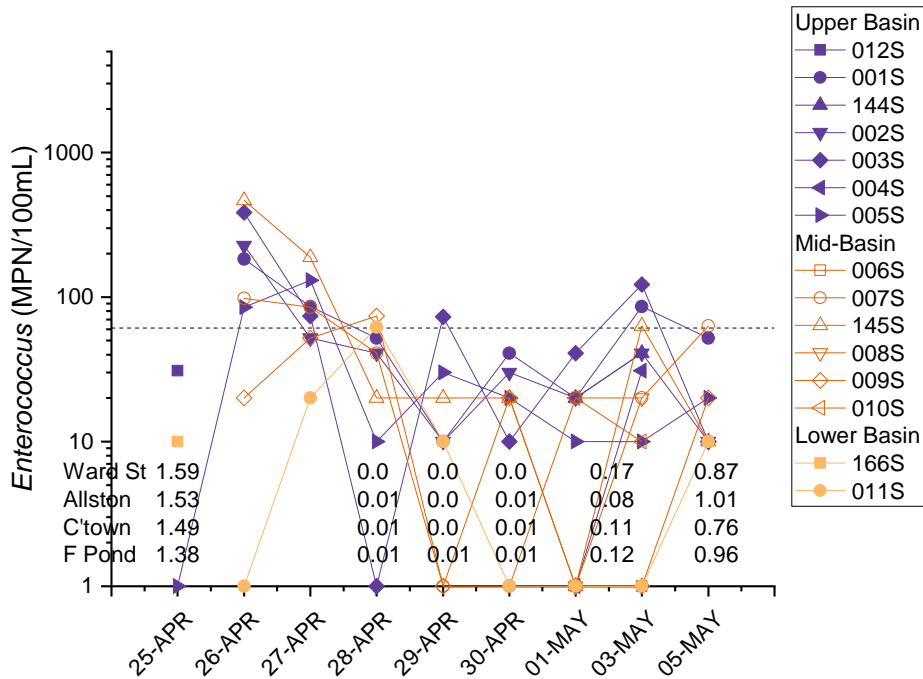
**Table 5-4. Rainfall Characteristics for the April 25-26, 2017 Storm.**

Gauge	Storm Start (Apr 25, EST)	Storm End (Apr 26, EST)	Duration (hrs)	Total Rainfall (in)	Peak Intensity (in/15mins)	Peak Intensity (in/hr)
Ward St. (MWRA)	0730	2200	38.5	1.59	0.11	0.24
Allston (BWSC)	1230	2245	34.25	1.53	0.09	0.21
Charlestown (BWSC)	1215	2100	32.75	1.49	0.13	0.33
Fresh Pond (USGS)	0745	2300	39.25	1.38	0.08	0.20

**Table 5-5. Enterococcus and E. coli results from the Charles River, April 25-May 5, 2016.**

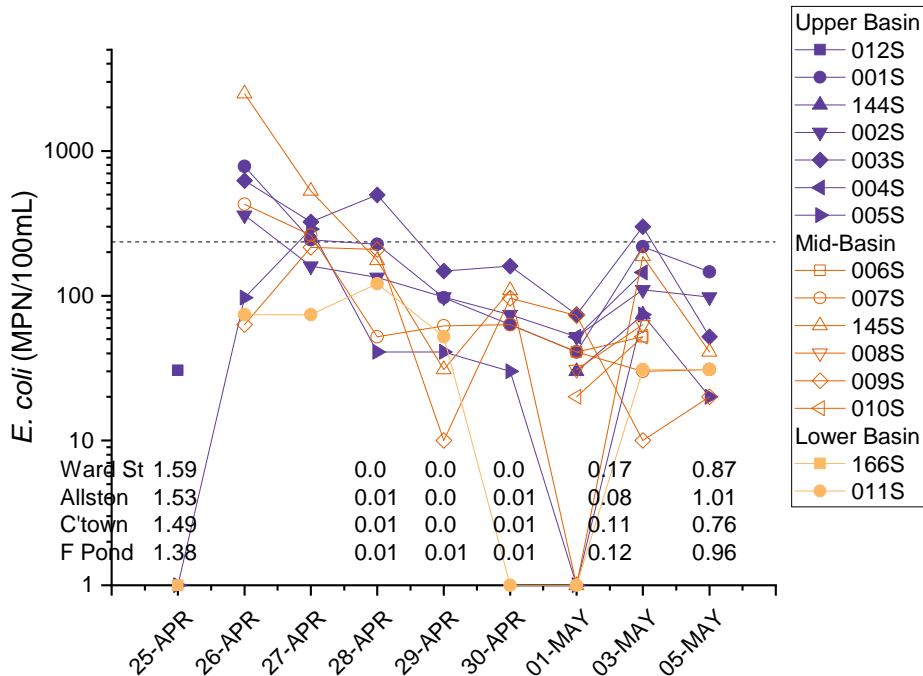
	Single Sample Standard	Monitoring Location														
		012	001	144	002	003	004	005	006	007	145	008	009	010	166	011
<i>Enterococcus</i>																
4/25	61	31					1								10	
4/26	61		<b>183</b>		<b>228</b>	<b>384</b>		<b>85</b>		<b>98</b>	<b>467</b>		20			1
4/27	61		<b>86</b>		52	<b>74</b>		<b>131</b>		<b>85</b>	<b>189</b>		52			20
4/28	61		52		41	1		10		41	20		<b>74</b>			<b>62</b>
4/29	61		10		10	<b>73</b>		30		1	20		1			10
4/30	61		41		30	10		20		1	20		20			1
5/1	61		20	20	20	41	1	10	1	20	1	1	1	20		1
5/2	61															
5/3	61		<b>86</b>	41	41	<b>122</b>	31	10	1	20	<b>63</b>	20	1	10		1
5/4	61															
5/5	61		52		10	10		20		<b>63</b>	10		20			10
<i>E. coli</i>																
4/25	235	30.5					1								1	
4/26	235		<b>780</b>		<b>359</b>	<b>624</b>		97		<b>428</b>	<b>2480</b>		63			74
4/27	235		<b>243</b>		160	<b>323</b>		<b>288</b>		<b>262</b>	<b>529</b>		216			74
4/28	235		226		134	<b>496</b>		41		52	175		209			121
4/29	235		97		98	148		41		62	31		10			52
4/30	235		63		74	160		30		63	109		96			1
5/1	235		41	30	52	74	52	1	41	41	1	31	73	20		1
5/2	235															
5/3	235		218	74	110	<b>299</b>	145	74	52	30	187	63	10	52		31
5/4	235															
5/5	235		146		98	52		20		31	41		20			31

Results in **bold** indicate samples that exceeded the single sample standard of 104 colonies/100mL for *Enterococcus* or 235 colonies/100mL for *E. coli*.



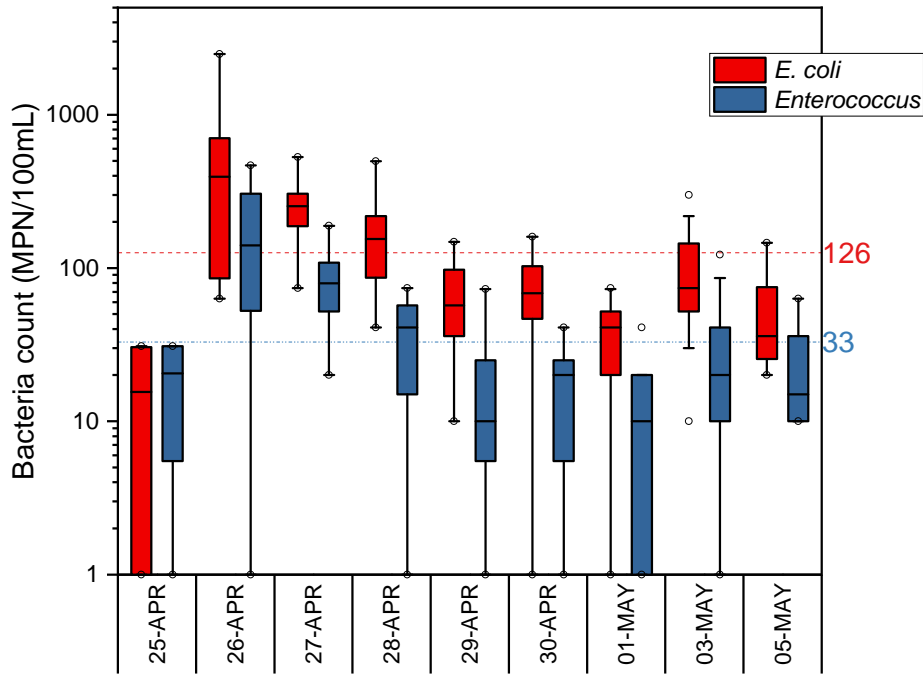
**Figure 5-4. Charles River *Enterococcus* counts, April 25-May 5, 2017.**

Time series of *Enterococcus* counts before and after the April 25-26 storm. Dashed line is the MADEP single sample standard of 61 MPN/100mL. The storm was just in its beginning stages when sampling began on April 25. There were no CSO discharges during this storm. Rainfall (inches) from the MWRA Ward Street, BWSC Allston and Charlestown, and USGS Fresh Pond rain gauges is shown above the day the rain fell.



**Figure 5-5. Charles River *E. coli* counts, April 25-May 5, 2017.**

Time series of *E. coli* counts before and after the April 25-26 storm. Dashed line is the MADEP single sample standard of 235 col/100mL. The storm was just in its beginning stages when sampling began on April 25. There were no CSO discharges during this storm. Rainfall (inches) from the MWRA Ward Street, BWSC Allston and Charlestown, and USGS Fresh Pond rain gauges is shown above the day the rain fell.



**Figure 5-6. Charles River bacteria samples by date, April 25-May 5, 2017.**

Distribution plot of bacteria samples (both *Enterococcus* and *E. coli*) collected immediately before and after the April 25-26 storm. The dotted line shows the MA DEP *Enterococcus* standard and the dashed line the MA DEP *E. coli* standard.

### 5.3 May 5-6, 2017: Mystic River and Alewife Brook

The May 5-6 storm was a moderate storm which caused discharges from both MWR205 and MWR205A. Additionally, a public notification was posted by Somerville for a discharge from SOM001A, although the Somerville NPDES annual report has not been released to confirm this discharge. The MWRA hydraulic model does not indicate that a discharge occurred. Note that in this storm, stations 174, 074, and 172 are upstream of all CSO discharges.

Samples collected on May 6 were collected at the tail end of the storm, and show elevated counts of both indicators at nearly all stations. Elevated counts of both indicators continued at most, but not all stations the next day (May 7). By May 8, counts were below the standards for both *Enterococcus* and *E. coli* at all stations but the Malden River (station 176; and that location only had high levels of *Enterococcus*). The following two days saw scattered high levels of indicator bacteria, including one elevated *E. coli* sample at station 174 at the farthest upstream end of Alewife Brook, upstream of any CSO inputs. As there were no rain events since the initial May 5-6 storm, this indicates a potential source of dry weather contamination.

**Table 5-6. Rainfall Characteristics for the May 5, 2017 Storm.**

Gauge	Storm Start (May 5, EST)	Storm End (May 6, EST)	Duration (hrs)	Total Rainfall (in)	Peak Intensity (in/15mins)	Peak Intensity (in/hr)
Charlestown (BWSC)	1215	1200	23.75	0.76	0.07	0.23
Fresh Pond (USGS)	1230	5/7 0030	36	0.96	0.15	0.37

**Table 5-7. CSO Discharges in the May 5-6, 2017 Storm, from MWRA Meter Records and MWRA Hydraulic Model Output.**

Outfall	Source of Discharge Estimate	Discharge Date	Duration (hours)	Volume (MG)
MWR205	Meter	5/5/17	2.93	1.42
MWR205A	Meter	5/5/17	0.55	*
SOM001A	Community meter <sup>1</sup>	5/5/17		

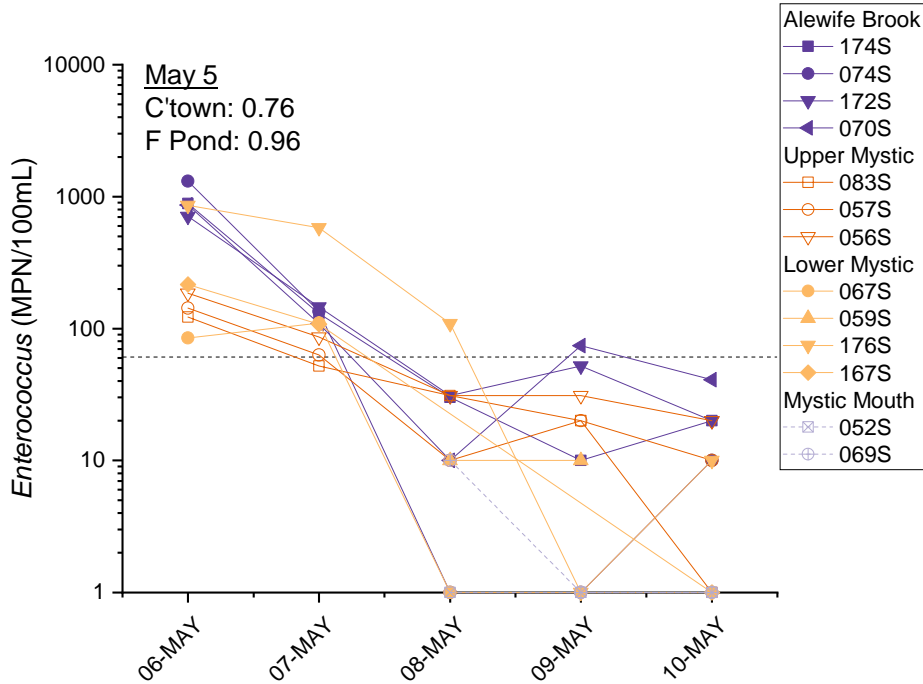
\* Volume not measured at MWR205A; only depth sensor available.

<sup>1</sup> Reported by Somerville (<https://www.somervillema.gov/cso>), but MWRA hydraulic model does not indicate a discharge. The Somerville public notification web page does not provide duration or volume information.

**Table 5-8. *Enterococcus* and *E. coli* results from the Mystic River and Alewife Brook, May 6-10, 2017.**

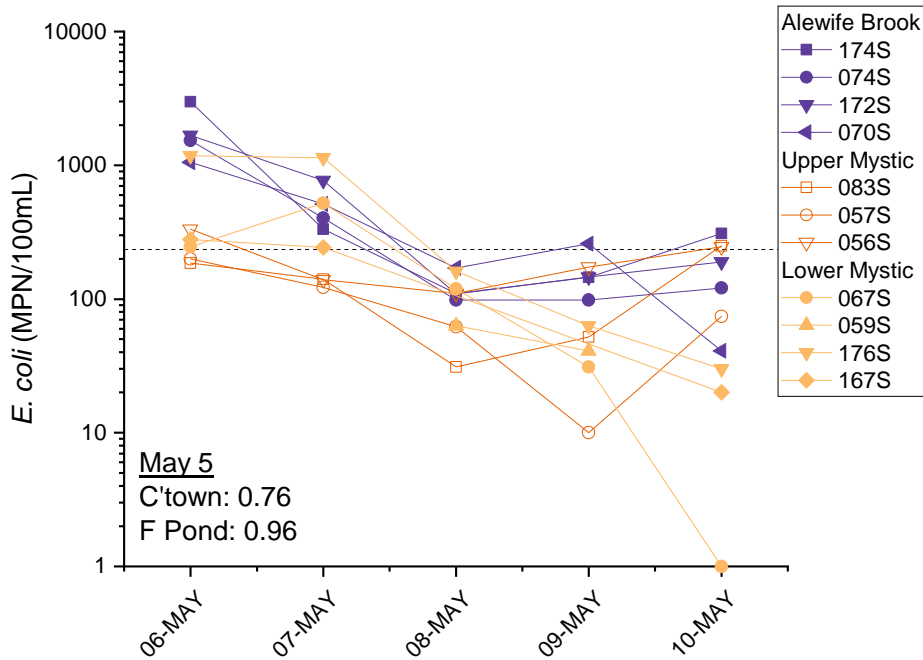
	Single Sample Standard	Monitoring Location												
		174	074	172	070	083	057	056	067	059	176	167	052	069
<i>Enterococcus</i>														
5/6	61	<b>888</b>	<b>1310</b>	<b>708</b>	<b>862</b>	122	143	185	85		860	216		
5/7	61	<b>130</b>	<b>135</b>	<b>146</b>	<b>109</b>	52	<b>63</b>	<b>86</b>	<b>110</b>		<b>581</b>	<b>108</b>		
5/8	61	30	1	31	10	31	10	31	1	10	<b>109</b>		1	10
5/9	61	10	1	52	<b>74</b>	20	20	31	1	10	1		1	1
5/10	61	20	10	20	41	1	10	20	1		10	1	1	1
<i>E. coli</i>														
5/6	235	<b>2990</b>	<b>1530</b>	<b>1670</b>	<b>1050</b>	185	199	<b>332</b>	<b>246</b>		<b>1180</b>	<b>278</b>		
5/7	235	<b>332</b>	<b>404</b>	<b>771</b>	<b>512</b>	141	122	139	<b>520</b>		<b>1140</b>	<b>243</b>		
5/8	235	110	98	109	171	31	62	110	119	63	161			
5/9	235	145	98	146	<b>259</b>	52	10	173	31	41	63			
5/10	235	<b>309</b>	121	189	41	249	74	<b>246</b>	1		30	20		

Results in **bold** indicate samples that exceeded the single sample standard of 104 colonies/100mL for *Enterococcus* or 235 colonies/100mL for *E. coli*.



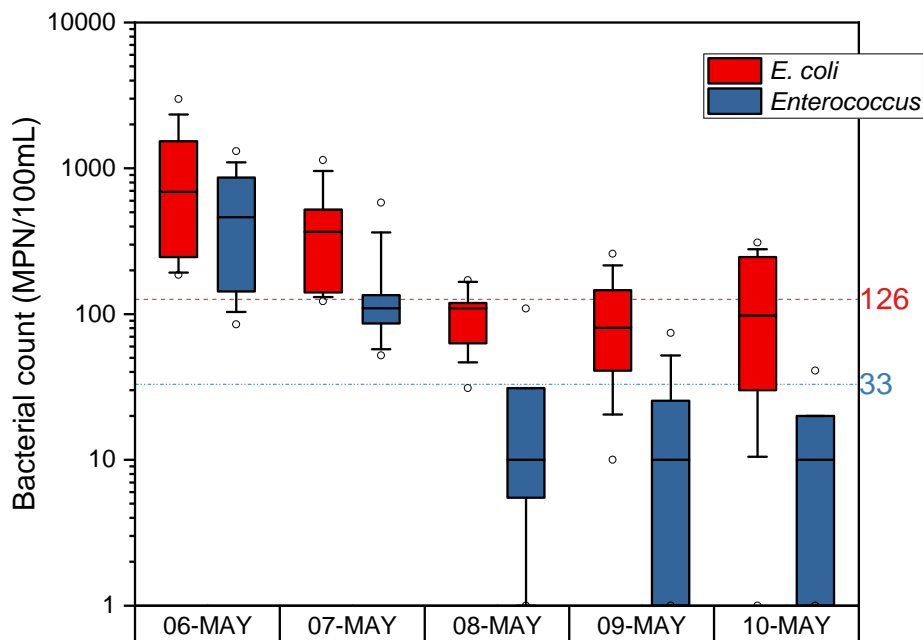
**Figure 5-7. Mystic River and Alewife Brook *Enterococcus* counts, May 6-10, 2017.**

Time series of *Enterococcus* counts after the May 5 storm. Dashed line is the MADEP single sample standard of 61 MPN/100mL. There were treated CSO discharges from MWR205 and MWR205A, and possibly untreated CSO from SOM001A during this storm (see text for potential SOM001A discharge). Rainfall in inches from the BWSC Charlestown and USGS Fresh Pond gauges on May 5 is shown above the graph.



**Figure 5-8. Mystic River and Alewife Brook *E. coli* counts, May 6-10, 2017.**

Time series of *E. coli* counts after the May 5 storm. Dashed line is the MADEP single sample standard of 235 MPN/100mL. There were treated CSO discharges from MWR205 and MWR205A, and possibly untreated CSO from SOM001A during this storm (see text for potential SOM001A discharge). Rainfall in inches from the BWSC Charlestown and USGS Fresh Pond gauges on May 5 is shown below the graph.



**Figure 5-9. Mystic River and Alewife Brook bacteria samples by date, May 6-10, 2017.** Distribution plot of bacteria samples (both *Enterococcus* and *E. coli*) collected immediately after the May 5 storm. The dotted line shows the MA DEP *Enterococcus* standard and the dashed line the MA DEP *E. coli* standard.

#### 5.4 May 13-15, 2017: Mystic River and Alewife Brook

Between May 13 and May 15, there was a storm with slightly over an inch of rainfall. During this storm, MWR205 discharged, but unfortunately MWRA was unable to sample the marine portion of the Mystic, so there is no data from station 052 by the MWR205 outfall. There was no other CSO discharge in the freshwater portion of the Mystic from this storm, so impacts upstream of the Amelia Earhart dam were solely from non-CSO sources.

Sample collection began near the end of the storm the morning of May 15. All but one location showed impairment from high bacteria counts for both indicator species. By the next day, May 16, all locations in the Upper Mystic met standards, but the Alewife Brook and the Lower Mystic Basin still had high counts.

For the remainder of the monitoring period, results were fairly inconsistent for both bacteria species both spatially and temporally. The only exceptions were the Lower Mystic Basin, which met standards for both indicators from May 17 onwards, and *E. coli* counts in the Alewife Brook, which consistently failed to meet standards.

There was additional rainfall on May 18 (0.16 inches at Charlestown and 0.23 inches at Fresh Pond), so that rain most likely contributed to the increase in counts for both indicator species in the Alewife Brook,

and possibly also at stations 057 and 056. This second wave of rainfall did not trigger any CSO discharges.

**Table 5-9. Rainfall Characteristics for the May 13, 2017 Storm.**

Gauge	Storm Start (May 13, EST)	Storm End (May 15, EST)	Duration (hrs)	Total Rainfall (in)	Peak Intensity (in/15mins)	Peak Intensity (in/hr)
Charlestown (BWSC)	2300	0915	34.25	1.04	0.07	0.21
Fresh Pond (USGS)	1945	1415	42.5	1.16	0.06	0.21

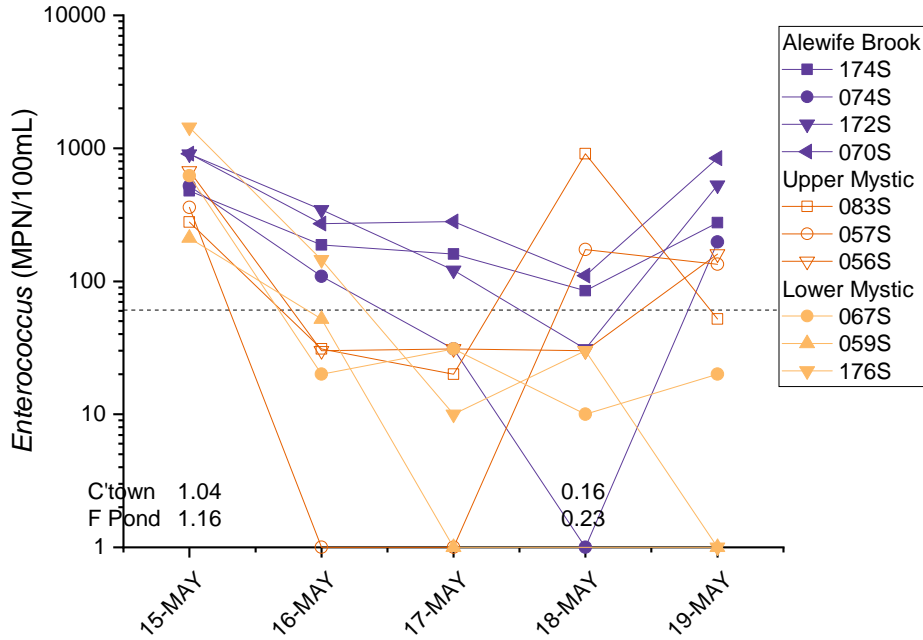
**Table 5-10. CSO Discharges in the May 13-15, 2017 Storm, from MWRA Meter Records and MWRA Hydraulic Model Output.**

Outfall	Source of Discharge Estimate	Discharge Date	Duration (hours)	Volume (MG)
MWR205	Meter	5/14/17	1.53	1.17

**Table 5-11. *Enterococcus* and *E. coli* results from the Mystic River and Alewife Brook, May 15-19, 2017.**

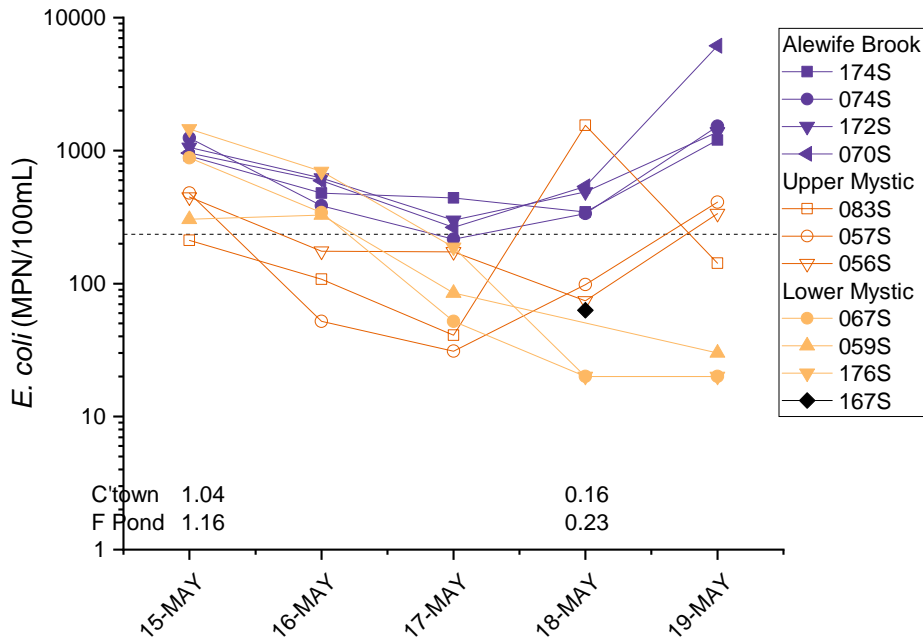
	Single Sample Standard	Monitoring Location												
		174	074	172	070	083	057	056	067	059	176	167	052	069
<i>Enterococcus</i>														
5/15	61	<b>479</b>	<b>520</b>	<b>905</b>	<b>907</b>	<b>278</b>	<b>359</b>	<b>677</b>	<b>620</b>	<b>211</b>	<b>1440</b>			
5/16	61	<b>187</b>	<b>109</b>	<b>345</b>	<b>272</b>	31	1	30	20	52	<b>145</b>			
5/17	61	<b>160</b>	31	<b>121</b>	<b>281</b>	20	1	31	31	1	10			
5/18	61	<b>85</b>	1	31	<b>110</b>	<b>907</b>	<b>173</b>	30	10		30			
5/19	61	<b>275</b>	<b>197</b>	<b>529</b>	<b>839</b>	52	<b>134</b>	<b>160</b>	20	1	1			
<i>E. coli</i>														
5/15	235	<b>910</b>	<b>1240</b>	<b>1060</b>	<b>959</b>	211	<b>480</b>	<b>448</b>	<b>882</b>	<b>305</b>	<b>1450</b>			
5/16	235	<b>480</b>	<b>384</b>	<b>620</b>	<b>594</b>	108	52	175	<b>341</b>	<b>327</b>	<b>697</b>			
5/17	235	<b>441</b>	216	<b>299</b>	<b>265</b>	41	31	173	52	85	187			
5/18	235	<b>345</b>	<b>336</b>	<b>488</b>	<b>538</b>	<b>1550</b>	98	74	20		20	63		
5/19	235	<b>1200</b>	<b>1520</b>	<b>1380</b>	<b>6130</b>	142	<b>410</b>	<b>336</b>	20	30	20			

Results in **bold** indicate samples that exceeded the single sample standard of 104 colonies/100mL for *Enterococcus* or 235 colonies/100mL for *E. coli*.



**Figure 5-10. Mystic River and Alewife Brook *Enterococcus* counts, May 15-19, 2017.**

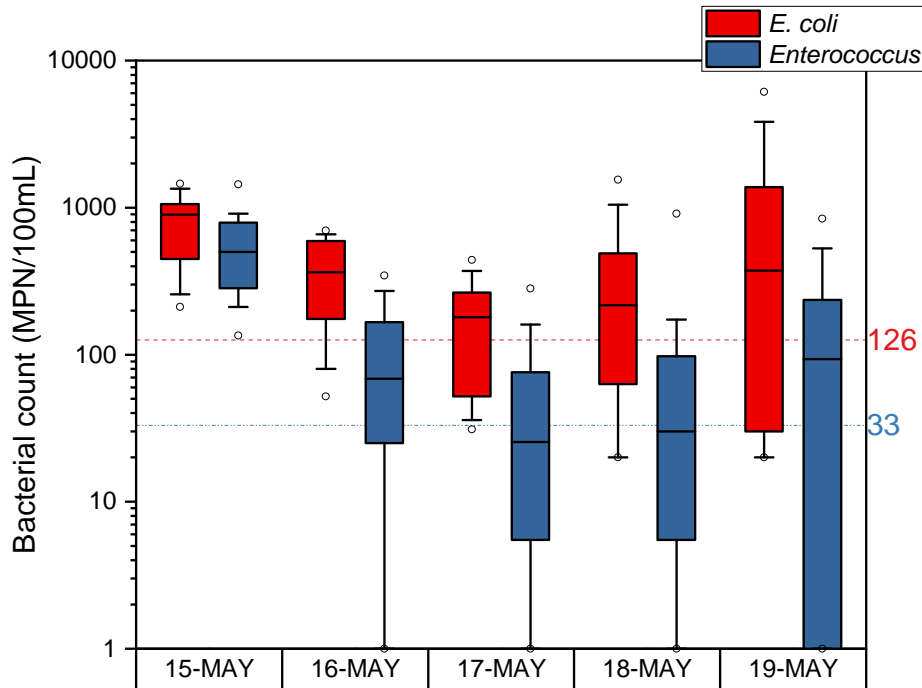
Time series of *Enterococcus* counts after the May 15 storm. Dashed line is the MADEP single sample standard of 61 MPN/100mL. There were treated CSO discharges from MWR205 during this storm, but no other known CSOs. Rainfall in inches from the BWSC Charlestown and USGS Fresh Pond gauges is shown above the day the rain fell.



**Figure 5-11. Mystic River and Alewife Brook *E. coli* counts, May 15-19, 2017.**

Time series of *E. coli* counts after the May 15 storm. Dashed line is the MADEP single sample standard of 235 MPN/100mL. There were treated CSO discharges from MWR205 during this storm, but no other known CSOs. Rainfall in inches from the BWSC Charlestown and USGS Fresh Pond gauges is shown above the day the rain fell.





**Figure 5-12. Mystic River and Alewife Brook bacteria samples by date, May 15-19, 2017.** Distribution plot of bacteria samples (both *Enterococcus* and *E. coli*) collected immediately after the May 15 storm. The dotted line shows the MA DEP *Enterococcus* standard and the dashed line the MA DEP *E. coli* standard.

### 5.5 May 25-26, 2017: Charles River

The storm that started on May 25 and continued into the next day provided, according to the MWRA hydraulic model, about 2.8% of the estimated total CSO volume discharged in 2017, or the ninth largest storm by CSO volume discharged. However, none of the combined sewage was discharged to the Charles, so like the April 25-26 storm exactly a month earlier, any bacterial impacts were from stormwater or upstream sources.

Samples collected on May 26 were collected during the storm while rain was still falling. Impairments from indicator bacteria were seen at nearly all stations, with the lowest counts being consistently downstream in the Lower Basin. Impacts seemed to last from two to four days based on location, with the Upper Basin seemingly showing the highest counts. *E. coli* at station 005 was especially persistent, not dropping below the standard by May 30.

A brief rain event in the afternoon of May 29 (total rainfall of about 0.05 inches at all gauges) did not seem to impact water quality, as indicator bacteria counts declined at all stations on May 30. *Enterococcus* at station 003 increased on May 29, but that was not rainfall related, as samples are collected in the morning and the rain began in the afternoon.

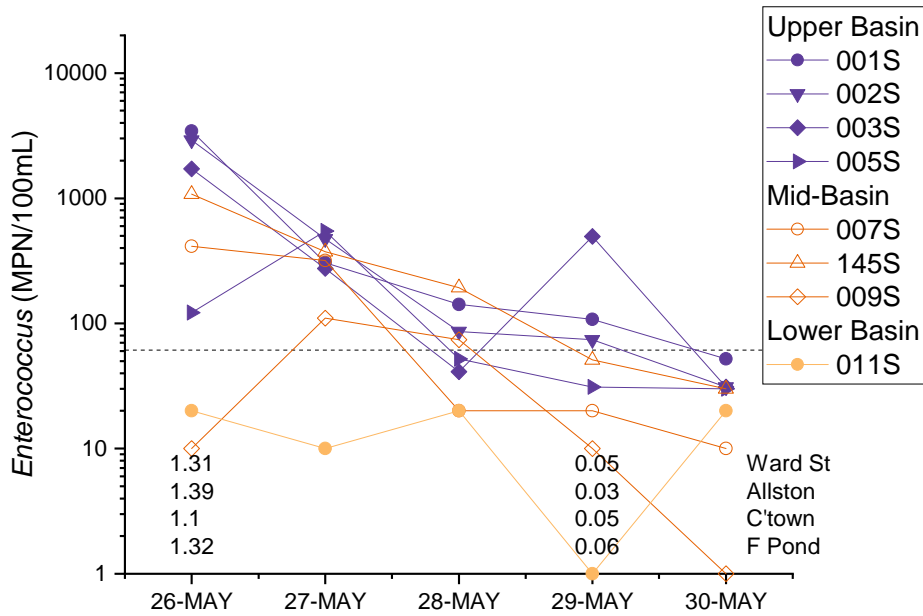
**Table 5-12. Rainfall Characteristics for the May 25-26, 2017 Storm.**

Gauge	Storm Start (May 25, EST)	Storm End (May 26, EST)	Duration (hrs)	Total Rainfall (in)	Peak Intensity (in/15mins)	Peak Intensity (in/hr)
Ward St. (MWRA)	0830	2015	35.75	1.31	0.13	0.37
Allston (BWSC)	0845	2030	35.75	1.39	0.25	0.50
Charlestown (BWSC)	0900	2030	35.5	1.1	0.08	0.23
Fresh Pond (USGS)	0730	2045	37.25	1.32	0.20	0.44

**Table 5-13. *Enterococcus* and *E. coli* results from the Charles River, May 26-30, 2017.**

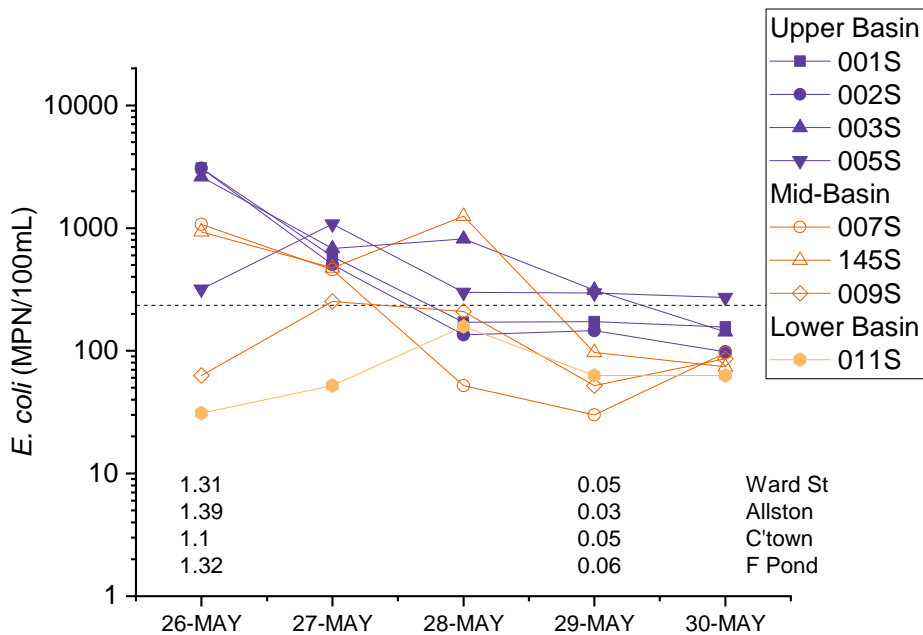
	Single Sample Std	Monitoring Location														
		012	001	144	002	003	004	005	006	007	145	008	009	010	166	011
<i>Enterococcus</i>																
5/26	61		<b>3450</b>		<b>2910</b>	<b>1720</b>		<b>122</b>		<b>413</b>	<b>1080</b>		10			20
5/27	61		<b>305</b>		<b>472</b>	<b>275</b>		<b>547</b>		<b>317</b>	<b>373</b>		<b>110</b>			10
5/28	61		<b>142</b>		<b>86</b>	41		52		20	<b>193</b>		<b>74</b>			20
5/29	61		<b>108</b>		<b>74</b>	<b>495</b>		31		20	51		10			1
5/30	61		52		31	31		30		10	30		1			20
<i>E. coli</i>																
5/26	235		<b>3080</b>		<b>3080</b>	<b>2610</b>		<b>318</b>		<b>1070</b>	<b>933</b>		63			31
5/27	235		<b>586</b>		<b>504</b>	<b>683</b>		<b>1080</b>		<b>457</b>	<b>472</b>		<b>253</b>			52
5/28	235		171		135	<b>816</b>		<b>299</b>		52	<b>1250</b>		209			158
5/29	235		173		146	<b>313</b>		<b>295</b>		30	97		52			63
5/30	235		156		98	143		<b>272</b>		96	74		86			63

Results in **bold** indicate samples that exceeded the single sample standard of 104 colonies/100mL for *Enterococcus* or 235 colonies/100mL for *E. coli*.



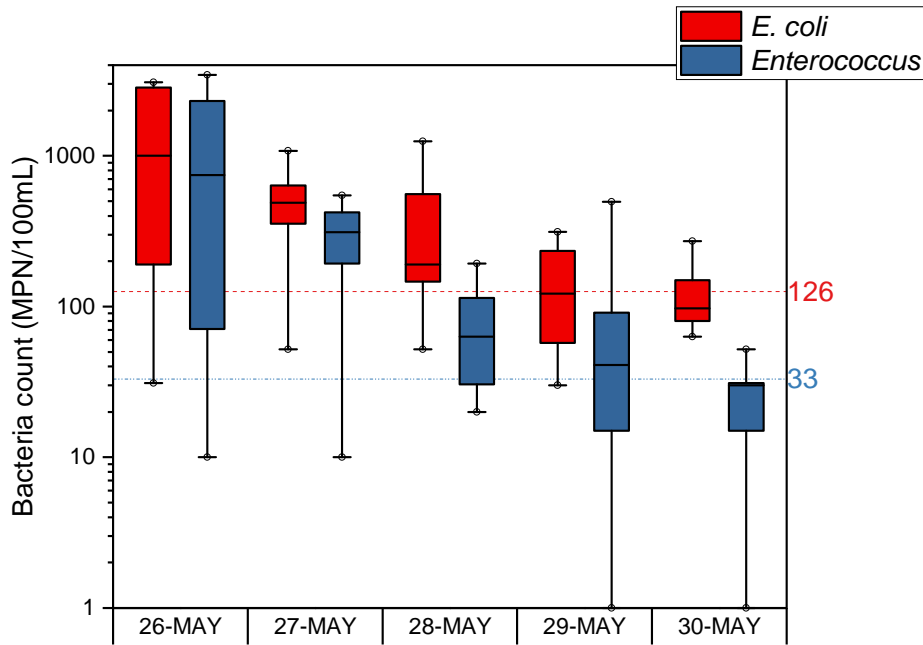
**Figure 5-13. Charles River *Enterococcus* counts, May 26-30, 2017.**

Time series of *Enterococcus* counts after the May 26 storm. Dashed line is the MADEP single sample standard of 61 MPN/100mL. Initial samples on May 26 were collected during the storm. There were no CSO discharges during this storm. Rainfall (inches) from the MWRA Ward Street, BWSC Allston and Charlestown, and USGS Fresh Pond rain gauges is shown above the day the rain fell.



**Figure 5-14. Charles River *E. coli* counts, May 26-30, 2017.**

Time series of *E. coli* counts after the May 26 storm. Dashed line is the MADEP single sample standard of 235 MPN/100mL. Initial samples on May 26 were collected during the storm. There were no CSO discharges during this storm. Rainfall (inches) from the MWRA Ward Street, BWSC Allston and Charlestown, and USGS Fresh Pond rain gauges is shown above the day the rain fell.



**Figure 5-15. Charles River bacteria samples by date, May 26-30, 2017.**

Distribution plot of bacteria samples (both *Enterococcus* and *E. coli*) collected during and immediately after the May 26 storm. The dotted line shows the MA DEP *Enterococcus* standard and the dashed line the MA DEP *E. coli* standard.

### 5.6 June 30-July 1, 2017: Mystic River and Alewife Brook

Over the course of three days, three separate small storms occurred, with a total rainfall of 0.28 inches at the BWSC Charlestown gauge, and 0.14 inches at the USGS Fresh Pond gauge. No CSO was discharged during any of these storm events.

The first samples were collected on June 30, before any rain fell. Nearly all of the Alewife Brook sites already had high levels of bacteria (the Fresh Pond gauge recorded nearly half an inch of rain several days previous on June 27). Two of the Upper Mystic sites had high levels of *E. coli*.

Due to the multiple storms during the monitoring period, the results were somewhat confusing. One constant was that stations in the Lower Mystic Basin did not have exceedances of either of the bacteria standards. Stations on the Alewife Brook were over the standards more often than not, and several of the stations in the Upper Mystic were also problematic for *Enterococcus*, but less so for *E. coli*.

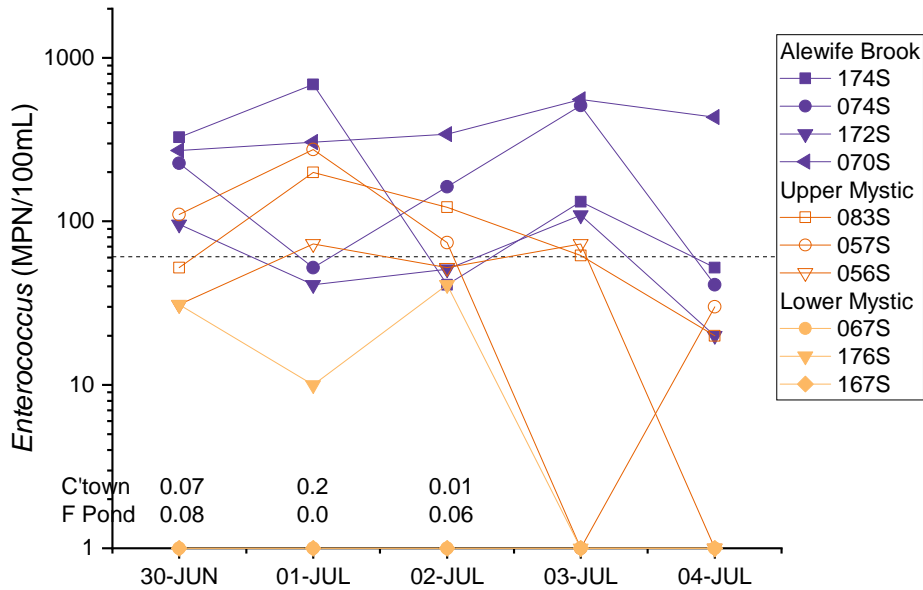
**Table 5-14. Rainfall Characteristics for the June 30, July 1, and July 2, 2017 Storms.**

Gauge	Storm Start (EST)	Storm End (EST)	Duration (hrs)	Total Rainfall (in)	Peak Intensity (in/15mins)	Peak Intensity (in/hr)
Charlestown (BWSC)	6/30 1815	6/30 1945	1.5	0.07	0.02	0.04
	7/1 2330	7/2 0000	0.5	0.2	0.15	0.20
	7/2 2315	7/2 2330	0.25	0.01	0.01	0.01
Fresh Pond (USGS)	6/30 1800	6/30 1930	1.5	0.08	0.04	0.05
	7/2 2245	7/2 2330	0.75	0.06	0.03	0.06

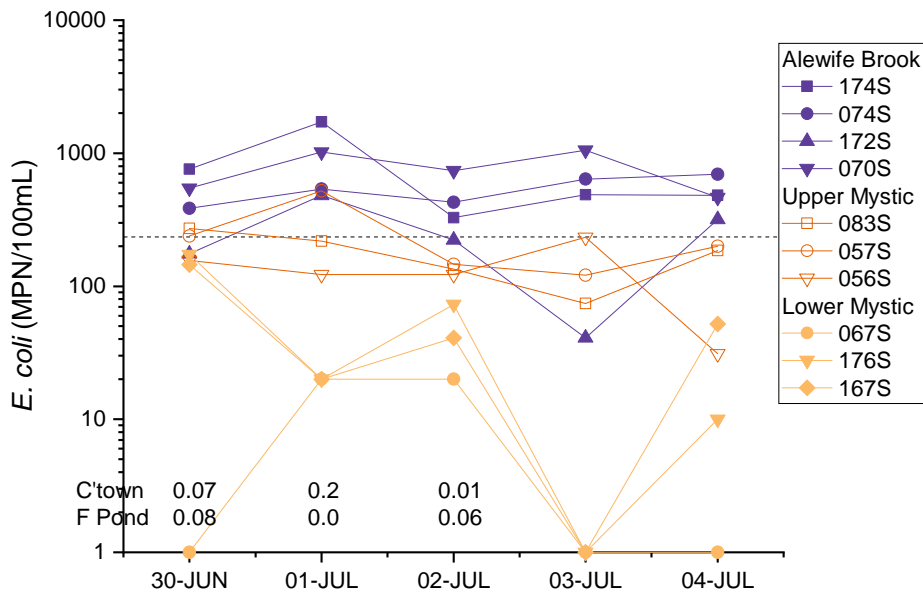
**Table 5-15. *Enterococcus* and *E. coli* results from the Mystic River and Alewife Brook, June 30-July 4, 2017.**

	Single Sample Standard	Monitoring Location												
		174	074	172	070	083	057	056	067	059	176	167	052	069
<i>Enterococcus</i>														
6/30	61	<b>327</b>	<b>227</b>	<b>96</b>	<b>272</b>	52	<b>110</b>	31	1		31	1		
7/1	61	<b>689</b>	52	41	<b>305</b>	<b>199</b>	<b>275</b>	<b>73</b>	1		10	1		
7/2	61	41	<b>163</b>	51	<b>341</b>	<b>122</b>	<b>74</b>	52	1		41	1		
7/3	61	<b>132</b>	<b>512</b>	<b>109</b>	<b>557</b>	62	1	<b>73</b>	1		1	1		
7/4	61	52	41	20	<b>435</b>	20	30	1	1		1	1		
<i>E. coli</i>														
6/30	235	<b>759</b>	<b>384</b>	175	<b>546</b>	<b>272</b>	<b>238</b>	156	1		173	145		
7/1	235	<b>1720</b>	<b>537</b>	<b>481</b>	<b>1020</b>	218	<b>521</b>	122	20		20	20		
7/2	235	<b>327</b>	<b>428</b>	223	<b>738</b>	134	146	122	20		73	41		
7/3	235	<b>487</b>	<b>638</b>	41	<b>1050</b>	74	121	233	1		1	1		
7/4	235	<b>481</b>	<b>695</b>	<b>318</b>	<b>464</b>	185	199	31	1		10	52		

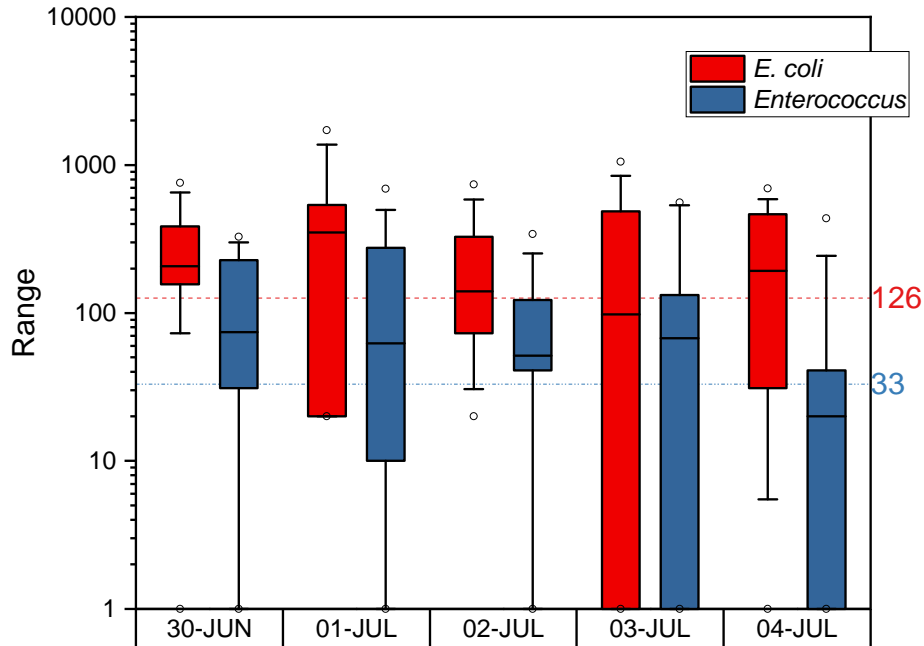
Results in **bold** indicate samples that exceeded the single sample standard of 104 colonies/100mL for *Enterococcus* or 235 colonies/100mL for *E. coli*.



**Figure 5-16. Mystic River and Alewife Brook *Enterococcus* counts, June 30-July 4, 2017.** Time series of *Enterococcus* counts after the June 30 storm. Dashed line is the MADEP single sample standard of 61 MPN/100mL. There were no CSO discharges during this storm. Rainfall in inches from the BWSC Charlestown and USGS Fresh Pond gauges is shown above the day the rain fell.



**Figure 5-17. Mystic River and Alewife Brook *E. coli* counts, June 30-July 4, 2017.** Time series of *E. coli* counts after the June 30 storm. Dashed line is the MADEP single sample standard of 235 MPN/100mL. There were no CSO discharges during this storm. Rainfall in inches from the BWSC Charlestown and USGS Fresh Pond gauges is shown above the day the rain fell.



**Figure 5-18. Mystic River and Alewife Brook bacteria samples by date, June 30–July 4, 2017.** Distribution plot of bacteria samples (both *Enterococcus* and *E. coli*) collected immediately after the June 30 storm. The dotted line shows the MA DEP *Enterococcus* standard and the dashed line the MA DEP *E. coli* standard.

### 5.7 July 12-13, 2017: Charles River

The storm that began on July 12 produced a moderate amount of total rainfall (from 0.59 to 1.18 inches dependent on the gauge), but relatively high intensities. This storm produced 6.4% of the estimated total CSO discharged in 2017 (making it the fifth largest storm in 2017), but like the May 25 storm, no CSO discharges – treated or untreated – were made to the Charles River according to the MWRA hydraulic model. However, the Cambridge hydraulic model indicated untreated CSO discharges at CAM005 (0.477 MG) and CAM007 (0.0004 MG).<sup>7</sup> Results from station 003, directly downstream of CAM005, are discussed below. There was also a moderate amount of rain on July 11, with the four rain gauges local to the Charles recording from 0.19 to 0.4 inches of rain.

Sampling began in the Charles during the storm on the morning of July 13. The highest bacteria counts were at stations (001, 144, 002) upstream of all CSOs. Station 003, downstream of CAM005, had elevated levels of both bacteria indicators that were lower than the upstream stations. Counts at station 003 on July 14 were still elevated, but decreased from the previous day, July 13. Both of these observations indicate that perhaps there was not a discharge of untreated CSO at CAM005.

Bacteria counts over the state standards for both indicators persisted for two to three days, with a limited number of stations still showing impairment by the fourth day. All standards were met by July 17,

<sup>7</sup> Cambridge hydraulic model results are presented in the Cambridge CSO NPDES annual report. See footnote 6 above.

although there was an elevated count of *E. coli* at station 001 on July 18 (there was rain the afternoon/evening of July 18, but that was after all samples were collected).

**Table 5-16. Rainfall Characteristics for the July 12-13, 2017 Storm.**

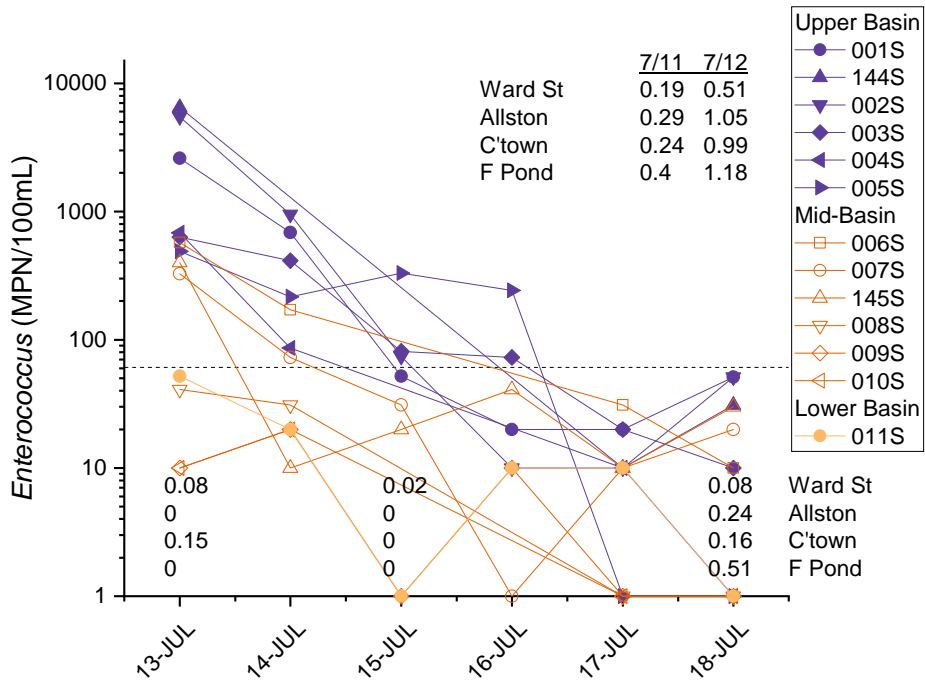
Gauge	Storm Start (Jul 12, EST)	Storm End (Jul 13, EST)	Duration (hrs)	Total Rainfall (in)	Peak Intensity (in/15mins)	Peak Intensity (in/hr)
Ward St. (MWRA)	1600	1815	26.25	0.59	0.18	0.29
Allston (BWSC)	1745	1815	24.5	1.05	0.52	0.68
Charlestown (BWSC)	1745	1730	23.75	1.14	0.62	0.84
Fresh Pond (USGS)	1730	1745	24.25	1.18	0.58	0.80

**Table 5-17. *Enterococcus* and *E. coli* results from the Charles River, July 12-13, 2017.**

	Single Sample Std	Monitoring Location														
		012	001	144	002	003	004	005	006	007	145	008	009	010	166	011
<i>Enterococcus</i>																
7/13	61		<b>2600</b>	<b>6490</b>	<b>5480</b>	<b>631</b>	<b>683</b>	<b>488</b>	<b>573</b>	<b>327</b>	<b>399</b>	41	10	10		52
7/14	61		<b>684</b>		<b>951</b>	<b>413</b>	<b>86</b>	<b>216</b>	<b>171</b>	<b>73</b>	10	31	20	20		20
7/15	61		52		<b>74</b>	<b>81</b>		<b>331</b>		31	20		1			1
7/16	61		20		10	<b>73</b>		<b>243</b>		1	41		10			10
7/17	61		20	10	10	20	10	1	31	10	10	1	1	1		10
7/18	61		51	31	51	10	1	1	10	20	30	1	1	1		1
<i>E. coli</i>																
7/13	235		<b>5790</b>	<b>9800</b>	<b>11200</b>	<b>1330</b>	<b>2010</b>	<b>3080</b>	<b>1550</b>	<b>1500</b>	<b>4610</b>	<b>530</b>	63	41		63
7/14	235		<b>830</b>		<b>1940</b>	<b>1180</b>	<b>703</b>	<b>496</b>	<b>538</b>	<b>373</b>	160	173	63	41		63
7/15	235		<b>419</b>		<b>384</b>	<b>422</b>		<b>345</b>		98	<b>238</b>		20			74
7/16	235		135		169	<b>609</b>		166		74	86		20			41
7/17	235		183	134	146	175	63	52	41	110	31	20	20	10		1
7/18	235		<b>332</b>	121	86	132	31	63	31	1	31	20	10	10		1

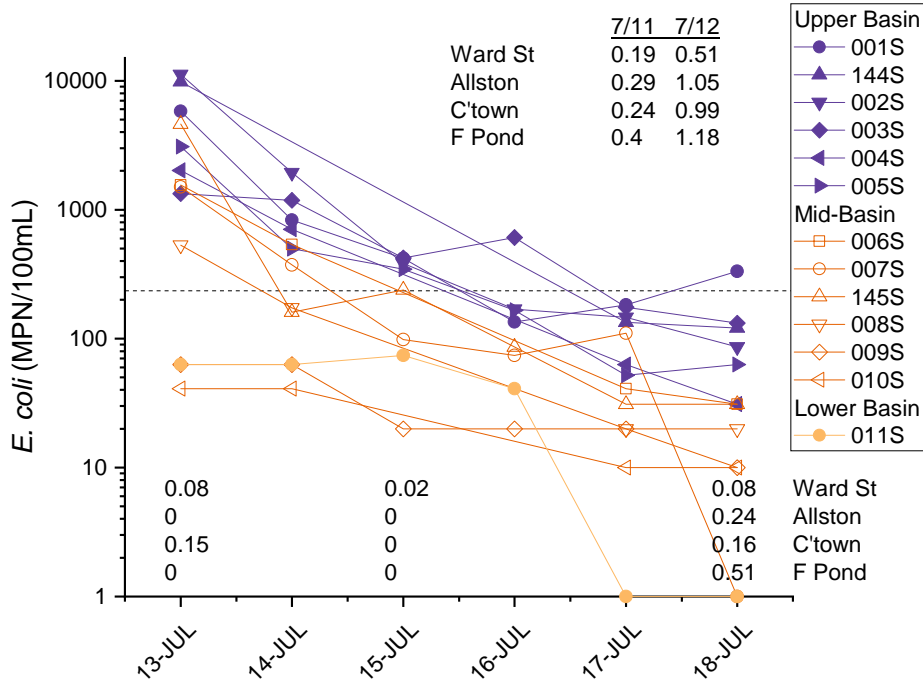
Results in **bold** indicate samples that exceeded the single sample standard of 104 colonies/100mL for *Enterococcus* or 235 colonies/100mL for *E. coli*.





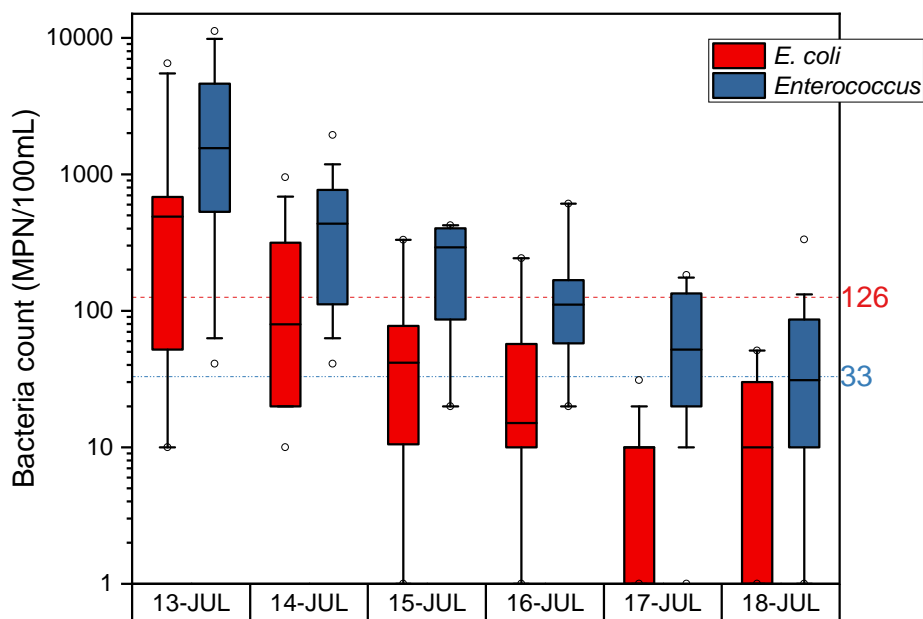
**Figure 5-19. Charles River *Enterococcus* counts, July 13-18, 2017.**

Time series of *Enterococcus* counts after the July 12 storm. Dashed line is the MADEP single sample standard of 61 MPN/100mL. Initial samples on July 13 were collected during the storm. For CSO discharges during this storm, see text. Rainfall (inches) from the MWRA Ward Street, BWSC Allston and Charlestown, and USGS Fresh Pond rain gauges is shown above the day the rain fell, as well as immediately antecedent rain on July 11 and 12.



**Figure 5-20. Charles River *E. coli* counts, July 13-18, 2017.**

Time series of *E. coli* counts after the July 12 storm. Dashed line is the MADEP single sample standard of 235 MPN/100mL. Initial samples on July 13 were collected during the storm. For CSO discharges during this storm, see text. Rainfall (inches) from the MWRA Ward Street, BWSC Allston and Charlestown, and USGS Fresh Pond rain gauges is shown above the day the rain fell, as well as immediately antecedent rain on July 11 and 12.



**Figure 5-21. Charles River bacteria samples by date, July 13-18, 2017.**

Distribution plot of bacteria samples (both *Enterococcus* and *E. coli*) collected during and after the July 13 storm. The dotted line shows the MA DEP *Enterococcus* standard and the dashed line the MA DEP *E. coli* standard.

### 5.8 July 24, 2017: Mystic River and Alewife Brook

The July 24 storm was the fourth largest storm in 2017 in terms of the estimated volume of CSO discharged (6.4% of 2017’s CSO volume). MWR205 and MWR205A both discharged treated CSO, but there is no indication from the MWRA model or the communities that there were any untreated CSO discharges.

Although rain started in the morning, the majority arrived in the afternoon, after sampling had been completed for the day. This is reflected in the relatively good results at all stations except those in the Alewife Brook. Sampling the next day, July 25, captured the impact of the storm as all locations were over the water quality standards for *Enterococcus* and all locations except two in the Upper Mystic for *E. coli*.

For *Enterococcus*, impacts for the rest of the monitoring period were limited to the Alewife Brook and station 083, which is the outlet of the Mystic Lakes. All other locations, including stations 067 and 052, which are downstream of MWR205A and MWR205, respectively, met the *Enterococcus* standard.

*E. coli* showed a similar pattern, with high levels of that indicator persisting in the Alewife Brook through the end of the monitoring period. July 26 saw several stations at the extreme downstream end of the Upper Mystic and stations in the Lower Mystic Basin with high counts, including station 067 near MWR205A. These locations, however, were below standard by the next day (July 27), and for the remainder of the monitoring period.

There was a small rain event on the morning of July 27 (0.05 inches at BWSC Charlestown, 0.07 inches at USGS Fresh Pond) with no CSO discharges, but that event may be responsible for some of the increases in some of the counts on July 27 and 28, but overall locations that are were above standard remained above standard, and locations that were below standards remained below the standards.

**Table 5-18. Rainfall Characteristics for the July 24, 2017 Storm.**

Gauge	Storm Start (July 24, EST)	Storm End (July 24, EST)	Duration (hrs)	Total Rainfall (in)	Peak Intensity (in/15mins)	Peak Intensity (in/hr)
Charlestown (BWSC)	0600	2030	14.5	1.31	0.15	0.40
Fresh Pond (USGS)	0545	7/25 0915	27.5	1.1	0.11	0.34

**Table 5-19. CSO Discharges in the July 24, 2017 Storm, from MWRA Meter Records and MWRA Hydraulic Model Output.**

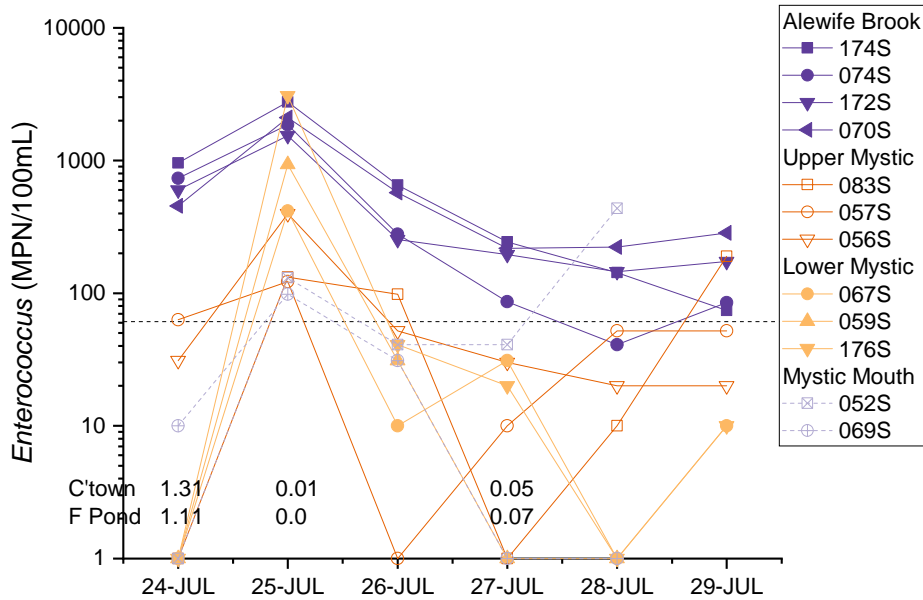
Outfall	Source of Discharge Estimate	Discharge Date	Duration (hours)	Volume (MG)
MWR205	Meter	7/24/17	4.03	4.05
MWR205A	Meter	7/24/17	1.18	*

\* Volume not measured at MWR205A; only depth sensor available.

**Table 5-20. *Enterococcus* and *E. coli* results from the Mystic River and Alewife Brook, July 24-29, 2017.**

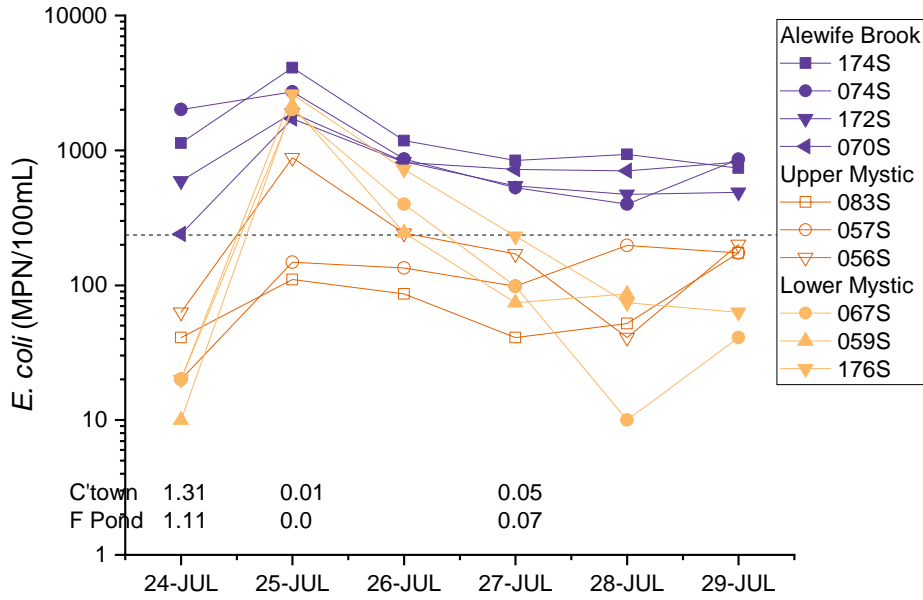
	Single Sample Standard	Monitoring Location												
		174	074	172	070	083	057	056	067	059	176	167	052	069
<i>Enterococcus</i>														
7/24	61	<b>959</b>	<b>733</b>	<b>598</b>	<b>455</b>	1	<b>63</b>	31	1	1	1		1	10
7/25	61	<b>2760</b>	<b>1860</b>	<b>1540</b>	<b>2100</b>	<b>132</b>	<b>122</b>	<b>397</b>	<b>416</b>	<b>933</b>	<b>3080</b>		<b>131</b>	<b>98</b>
7/26	61	<b>650</b>	<b>278</b>	<b>253</b>	<b>571</b>	<b>98</b>	1	52	10	31	41		41	31
7/27	61	<b>243</b>	<b>86</b>	<b>195</b>	<b>218</b>	1	10	30	31	1	20		41	1
7/28	61	<b>143</b>	41	<b>145</b>	<b>223</b>	10	52	20	1	1	1		435	1
7/29	61	<b>74</b>	<b>85</b>	<b>173</b>	<b>285</b>	<b>189</b>	52	20	10		10	10		
<i>E. coli</i>														
7/24	235	<b>1130</b>	<b>2010</b>	<b>594</b>	<b>240</b>	41	20	63	20	10	20			
7/25	235	<b>4110</b>	<b>2720</b>	<b>1900</b>	<b>1720</b>	110	148	<b>882</b>	<b>2010</b>	<b>2140</b>	<b>2600</b>			
7/26	235	<b>1180</b>	<b>862</b>	<b>823</b>	<b>813</b>	86	134	<b>243</b>	<b>399</b>	<b>244</b>	<b>723</b>			
7/27	235	<b>839</b>	<b>529</b>	<b>546</b>	<b>723</b>	41	98	171	98	74	231			
7/28	235	<b>933</b>	<b>399</b>	<b>472</b>	<b>703</b>	52	197	41	10	86	74			
7/29	235	<b>738</b>	<b>857</b>	<b>488</b>	<b>820</b>	173	173	201	41		63			

Results in **bold** indicate samples that exceeded the single sample standard of 104 colonies/100mL for *Enterococcus* or 235 colonies/100mL for *E. coli*.



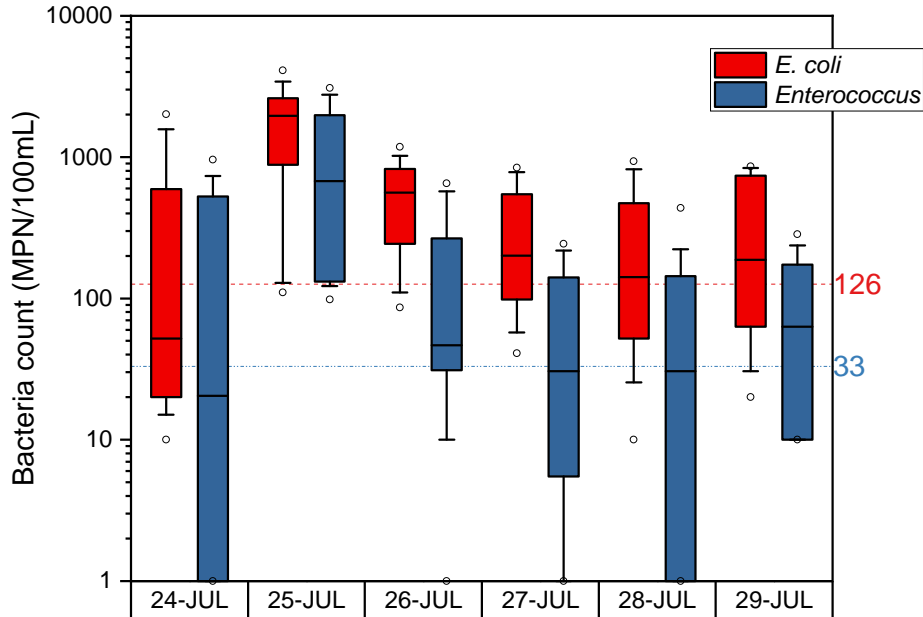
**Figure 5-22. Mystic River and Alewife Brook *Enterococcus* counts, July 24-29, 2017.**

Time series of *Enterococcus* counts after the June 24 storm. Dashed line is the MADEP single sample standard of 61 MPN/100mL. Sampling on July 24 occurred before the majority of the rain arrived in the afternoon of that day. There were treated CSO discharges from MWR205 and MWR205A during this storm. Rainfall in inches from the BWSC Charlestown and USGS Fresh Pond gauges is shown above the day the rain fell.



**Figure 5-23. Mystic River and Alewife Brook *E. coli* counts, July 24-29, 2017.**

Time series of *E. coli* counts after the July 24 storm. Dashed line is the MA DEP single sample standard of 235 MPN/100mL. Sampling on July 24 occurred before the majority of the rain arrived in the afternoon of that day. There were treated CSO discharges from MWR205 and MWR205A during this storm. Rainfall in inches from the BWSC Charlestown and USGS Fresh Pond gauges is shown above the day the rain fell.



**Figure 5-24. Mystic River and Alewife Brook bacteria samples by date, July 24-29, 2017.**

Distribution plot of bacteria samples (both *Enterococcus* and *E. coli*) collected immediately after the July 24 storm. The dotted line shows the MA DEP *Enterococcus* standard and the dashed line the MA DEP *E. coli* standard.

### 5.9 August 18-19, 2017: Charles River

The storm of August 18-19 turned out to be smaller than forecasted; rainfall totals were very low, ranging from 0.05 to 0.13 inches. Unsurprisingly, there were no CSO discharges to the Charles. All samples on August 19 were collected after the rain ended in the early morning.

For *Enterococcus*, there were scattered exceedances of the single sample limit from August 19-23, with the greatest number on August 20, with no distinct spatial pattern. *E. coli* was similar, although all the elevated counts were concentrated in the Upper Basin area.

Rain fell on August 23 in the early morning in a patchy spatial pattern; Ward Street, Allston, and Charlestown recorded between 0.04 and 0.07 inches, but Fresh Pond recorded 0.31 inches of rain. This may have been the reason behind the high counts for both indicators at station 001, which is close to the Fresh Pond gauge. Interestingly, there seemed to be a delayed response as there were a number of counts higher than the state standards the day after on August 24, especially for *E. coli*.

Counts were still high on August 28 – but only for *E. coli* and not *Enterococcus*.

Another relatively small rain storm occurred on August 30 (rainfall totals between 0.06 and 0.12 inches) in the early morning. Samples taken after the rain that morning showed elevated counts in the most upstream station in the Charles, 012. Elevated levels still persisted, primarily in the Upper Basin for *Enterococcus*, and in the lower reaches of the Upper Basin into the Mid-Basin for *E. coli*.

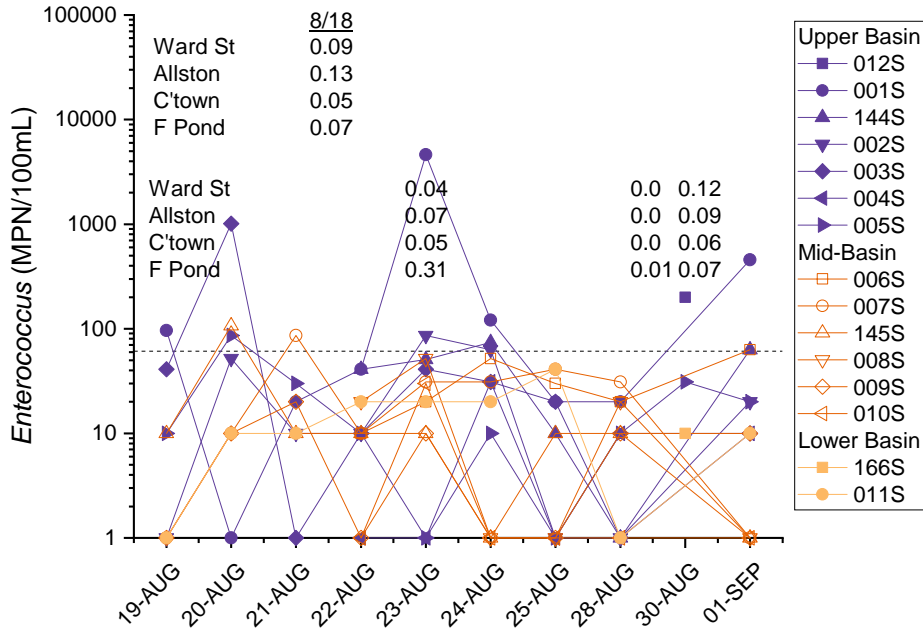
**Table 5-21. Rainfall Characteristics for the August 18-19, 2017 Storm.**

Gauge	Storm Start (Aug 18, EST)	Storm End (Aug 19, EST)	Duration (hrs)	Total Rainfall (in)	Peak Intensity (in/15mins)	Peak Intensity (in/hr)
Ward St. (MWRA)	2245	0400	5.25	0.09	0.08	0.08
Allston (BWSC)	2300	8/18 2330	0.5	0.13	0.12	0.13
Charlestown (BWSC)	1830	0430	10	0.05	0.03	0.03
Fresh Pond (USGS)	1500	0145	10.75	0.07	0.02	0.03

**Table 5-22. *Enterococcus* and *E. coli* results from the Charles River, August 19-September 1, 2017.**

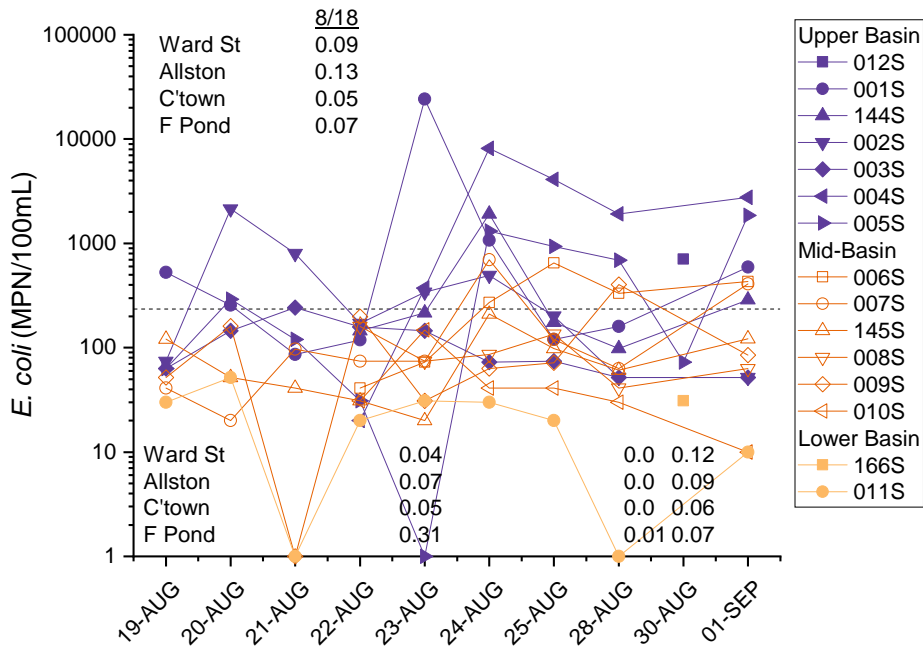
	Single Sample Standard	Monitoring Location														
		012	001	144	002	003	004	005	006	007	145	008	009	010	166	011
<i>Enterococcus</i>																
8/19	61		<b>96</b>		1	41		10		1	10		1			1
8/20	61		1		52	<b>1010</b>		<b>86</b>		10	<b>107</b>		10			10
8/21	61		20		10	1		30		<b>86</b>	10		20			10
8/22	61		41	41	10	10	1	10	10	10	10	20	1	1		20
8/23	61		<b>4610</b>	51	<b>86</b>	41	1	1	20	31	10	52	10	30		20
8/24	61		<b>121</b>	<b>74</b>	<b>63</b>	31	31	10	52	31	1	1	1	1		20
8/25	61		20	10	1	20	1	1	30	41	10	1	1	1		41
8/26	61															
8/27	61															
8/28	61		20	1	1	1	10	10	20	31	10	20	10	1		1
8/29	61															
8/30	61	<b>200</b>						31								10
8/31	61															
9/1	61		<b>457</b>	<b>63</b>	20	10	10	20	<b>63</b>	1	1	1	10	1		10
<i>E. coli</i>																
8/19	235		<b>529</b>		74	63		63		41	121		52			30
8/20	235		<b>256</b>		<b>2140</b>	145		<b>292</b>		20	52		161			52
8/21	235		86		<b>798</b>	<b>243</b>		120		97	41		1			1
8/22	235		119	145	171	158	20	31	41	74	31	160	199	31		20
8/23	235		<b>24200</b>	216	<b>341</b>	145	<b>373</b>	1	73	74	20	74	31	148		31
8/24	235		<b>1070</b>	<b>1920</b>	<b>495</b>	73	<b>8160</b>	<b>1310</b>	<b>272</b>	<b>697</b>	211	86	63	41		30
8/25	235		120	175	201	74	<b>4110</b>	<b>933</b>	<b>650</b>	120	98	135	72	41		20
8/26	235															
8/27	235															
8/28	235		160	98	52	52	<b>1920</b>	<b>691</b>	<b>331</b>	63	61	41	<b>404</b>	30		1
8/29	235															
8/30	235	<b>707</b>						73								31
8/31	235															
9/1	235		<b>594</b>	<b>288</b>	52	52	<b>2760</b>	<b>1860</b>	<b>432</b>	<b>410</b>	122	63	85	10		10

Results in **bold** indicate samples that exceeded the single sample standard of 104 colonies/100mL for *Enterococcus* or 235 colonies/100mL for *E. coli*.



**Figure 5-25. Charles River *Enterococcus* counts, August 19-September 1, 2017.**

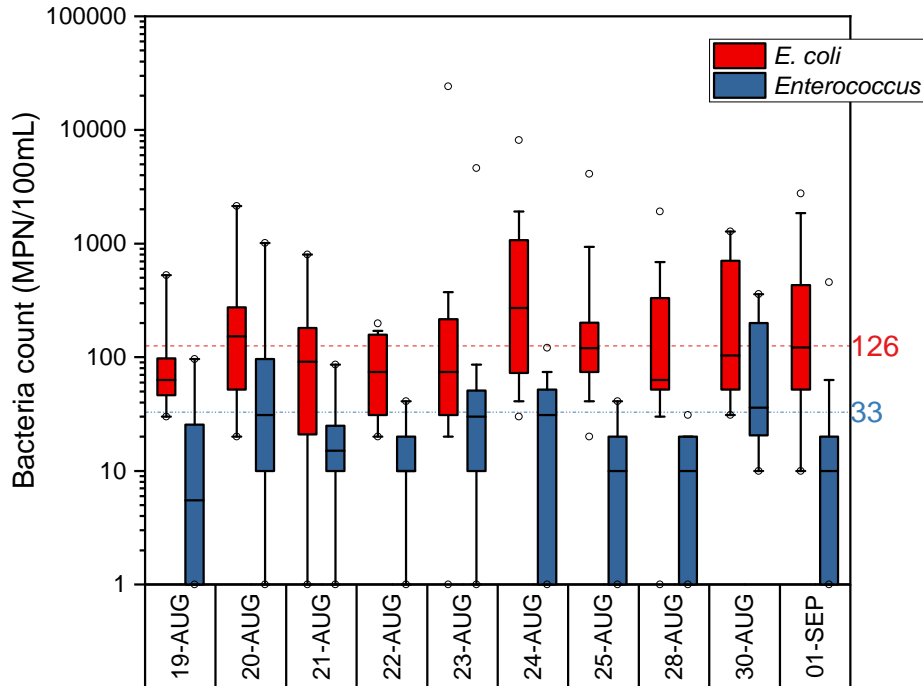
Time series of *Enterococcus* counts after the August 18-19 storm. Dashed line is the MADEP single sample standard of 61 MPN/100mL. Initial samples on August 19 were collected after the storm. There were no CSO discharges during this storm. Rainfall in inches from the MWRA Ward Street, BWSC Allston and Charlestown, and USGS Fresh Pond rain gauges is shown above the day the rain fell. Rain from the August 18-19 storm are shown above the chart.



**Figure 5-26. Charles River *E. coli* counts, August 19-September 1, 2017.**

Time series of *E. coli* counts after the August 18-19 storm. Dashed line is the MADEP single sample standard of 61 MPN/100mL. Initial samples on August 19 were collected after the storm. There were no CSO discharges during this storm. Rainfall, in inches, from the MWRA Ward St., BWSC Allston and Charlestown, and USGS Fresh Pond rain gauges is shown above the day the rain fell. August 18-19 storm rainfall is shown above the chart.





**Figure 5-27. Charles River bacteria samples by date, August 19-September 1, 2017.**

Distribution plot of bacteria samples (both *Enterococcus* and *E. coli*) collected immediately after the August 18-19 storm. The dotted line shows the MA DEP *Enterococcus* standard and the dashed line the MA DEP *E. coli* standard.

### 5.10 September 6-7, 2017: Mystic River and Alewife Brook

The storm of September 6-7 was the eighth largest of the year in terms of estimated CSO volume discharged, contributing 3.3% of the year’s CSO discharge volume. In the Mystic, only MWR205A discharged in the freshwater portion, although in the marine portion there was a discharge from MWR205. Neither the MWRA hydraulic model nor the available community reports indicated that any untreated CSOs discharged. There were no other rainfall events in the monitoring period.

A defining characteristic of this storm was that for all locations in the Alewife Brook, and two locations in the Upper Mystic (083 and 057), standards were not met for both indicator bacteria species at any time from September 7 to September 10. By the last day, September 11, *Enterococcus* standards were met at 074 in the Alewife Brook, and *E. coli* standards were met at 083 and 057 in the Upper Mystic.

Potential impacts at station 067 from the MWR205A discharge in the early morning of September 7 (before sampling) were seen for both *Enterococcus* and *E. coli*, but counts for both bacteria met standards by September 9. *Enterococcus* counts at station 052 by the MWR205 outfall were above the standard on September 7 and 8. It is important to note there are a number of known stormwater connections to the Somerville Marginal Conduit downstream of the CSO facility.

Station 056 at the downstream end of the Upper Mystic, and most of the Lower Mystic Basin, met bacterial standards by September 9. The entirety of the Lower Mystic Basin met standards by September 10.

**Table 5-23. Rainfall Characteristics for the September 7, 2017 Storm.**

Gauge	Storm Start (Sept 6, EST)	Storm End (Sept 7, EST)	Duration (hrs)	Total Rainfall (in)	Peak Intensity (in/15mins)	Peak Intensity (in/hr)
Charlestown (BWSC)	1015	0415	18	1.05	0.24	0.49
Fresh Pond (USGS)	1015	0330	17.25	0.91	0.36	0.39

**Table 5-24. CSO Discharges in the September 6-7, 2017 Storm, from MWRA Meter Records and MWRA Hydraulic Model Output.**

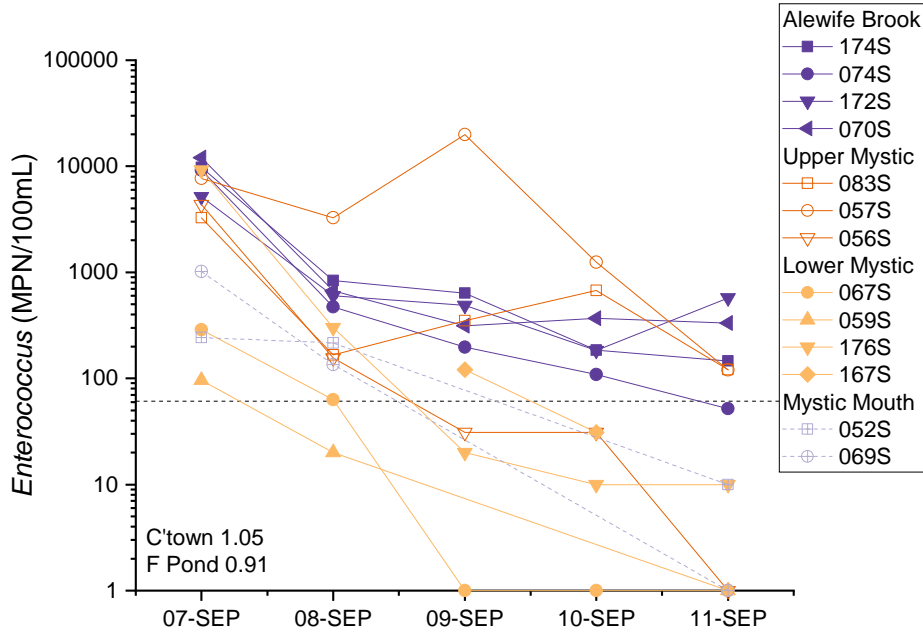
Outfall	Source of Discharge Estimate	Discharge Date	Duration (hours)	Volume (MG)
MWR205	Meter	9/7/17	2.9	1.94
MWR205A	Meter	9/7/17	0.6	*

\* Volume not measured at MWR205A; only depth sensor available.

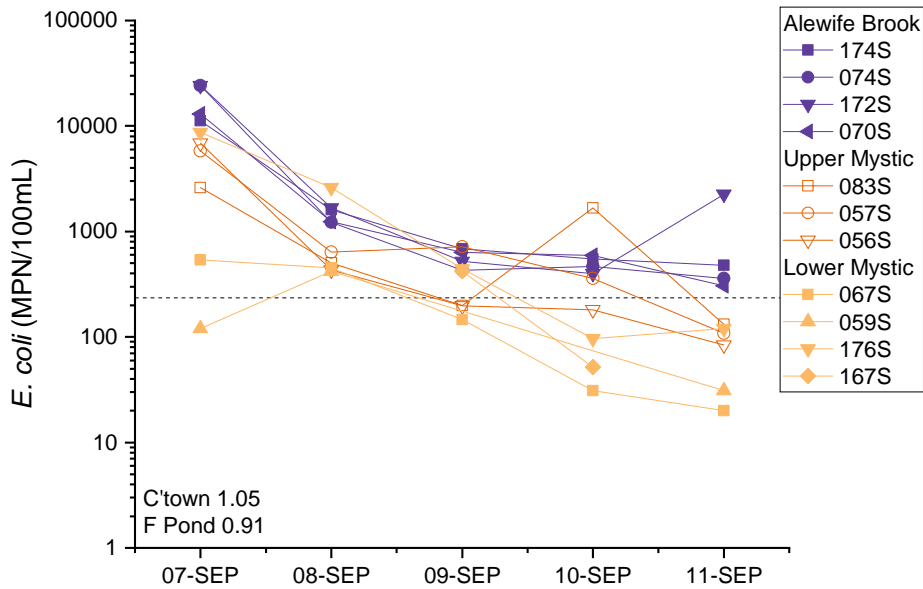
**Table 5-25. *Enterococcus* and *E. coli* results from the Mystic River and Alewife Brook, July 24-29, 2017.**

	Single Sample Std	Monitoring Location												
		174	074	172	070	083	057	056	067	059	176	167	052	069
<i>Enterococcus</i>														
9/7	61	<b>9800</b>	<b>9210</b>	<b>5170</b>	<b>12000</b>	<b>3260</b>	<b>7700</b>	<b>4350</b>	<b>288</b>	<b>96</b>	<b>9210</b>		<b>243</b>	<b>1020</b>
9/8	61	<b>839</b>	<b>472</b>	<b>601</b>	<b>670</b>	<b>166</b>	<b>3260</b>	<b>156</b>	<b>63</b>	<b>20</b>	<b>301</b>		<b>216</b>	<b>135</b>
9/9	61	<b>638</b>	<b>197</b>	<b>488</b>	<b>313</b>	<b>350</b>	<b>19900</b>	<b>31</b>	<b>1</b>		<b>20</b>	<b>121</b>		
9/10	61	<b>185</b>	<b>109</b>	<b>183</b>	<b>369</b>	<b>677</b>	<b>1250</b>	<b>31</b>	<b>1</b>		<b>10</b>	<b>31</b>		
9/11	61	<b>146</b>	<b>52</b>	<b>573</b>	<b>332</b>	<b>121</b>	<b>120</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>10</b>		<b>10</b>	<b>1</b>
<i>E. coli</i>														
9/7	235	<b>11200</b>	<b>24200</b>	<b>24200</b>	<b>13000</b>	<b>2600</b>	<b>5790</b>	<b>6870</b>	<b>538</b>	<b>120</b>	<b>8660</b>			
9/8	235	<b>1610</b>	<b>1220</b>	<b>1670</b>	<b>1240</b>	<b>504</b>	<b>638</b>	<b>431</b>	<b>450</b>	<b>419</b>	<b>2610</b>			
9/9	235	<b>683</b>	<b>428</b>	<b>520</b>	<b>631</b>	<b>199</b>	<b>717</b>	<b>197</b>	<b>146</b>		<b>441</b>	<b>419</b>		
9/10	235	<b>547</b>	<b>465</b>	<b>399</b>	<b>594</b>	<b>1670</b>	<b>359</b>	<b>181</b>	<b>31</b>		<b>96</b>	<b>52</b>		
9/11	235	<b>479</b>	<b>359</b>	<b>2260</b>	<b>305</b>	<b>132</b>	<b>108</b>	<b>84</b>	<b>20</b>	<b>31</b>	<b>120</b>			

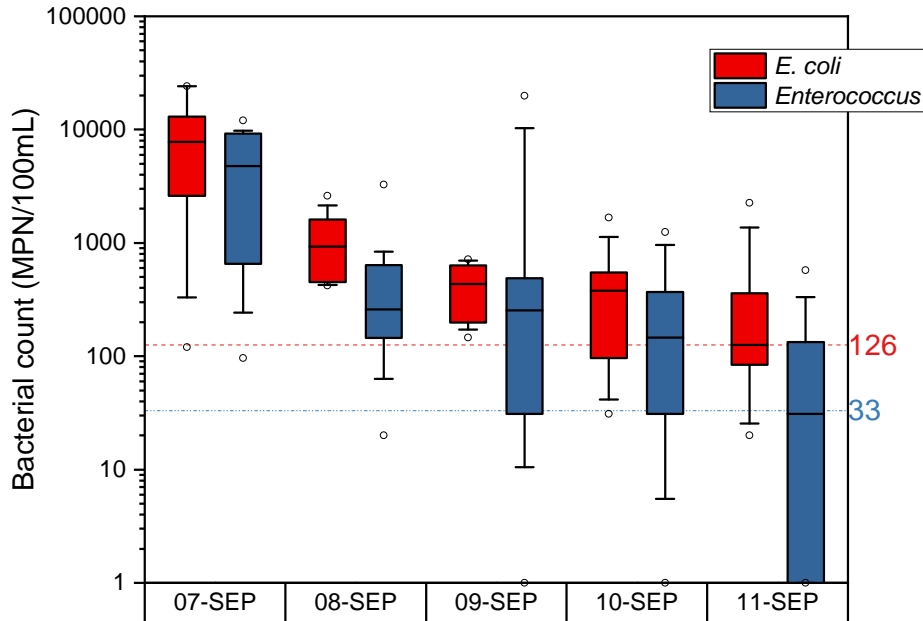
Results in **bold** indicate samples that exceeded the single sample standard of 104 colonies/100mL for *Enterococcus* or 235 colonies/100mL for *E. coli*.



**Figure 5-28. Mystic River and Alewife Brook *Enterococcus* counts, September 7-11, 2017.** Time series of *Enterococcus* counts after the September 6-7 storm. Dashed line is the MADEP single sample standard of 61 MPN/100mL. There was a CSO discharge from MWR205A during this storm. Rainfall in inches from the BWSC Charlestown and USGS Fresh Pond gauges is shown above the day the rain fell.



**Figure 5-29. Mystic River and Alewife Brook *E. coli* counts, September 7-11, 2017.** Time series of *E. coli* counts after the September 6-7 storm. Dashed line is the MADEP single sample standard of 235 MPN/100mL. There was a CSO discharge from MWR205A during this storm. Rainfall in inches from the BWSC Charlestown and USGS Fresh Pond gauges is shown above the day the rain fell.



**Figure 5-30. Mystic River and Alewife Brook bacteria samples by date, September 7-11, 2017.** Distribution plot of bacteria samples (both *Enterococcus* and *E. coli*) collected immediately after the September 6-7 storm. The dotted line shows the MA DEP *Enterococcus* standard and the dashed line the MA DEP *E. coli* standard.

### 5.11 October 24-26, 2017: Charles River

The storm that began October 24 and lasted into October 26 was the tenth largest of 2017 in terms of estimated CSO volume discharged (2.3% of the volume in 2017). However, there were no discharges of CSO into the Charles River during this storm. Therefore, all bacterial impairments of the river were due to stormwater or upstream inputs.

The larger storm was preceded by a brief rainfall the morning of October 24 at three of the area rain gauges for about two hours before sampling. However, this rain did not seem to affect *Enterococcus* levels which were below the standard at all locations. Three locations saw elevated *E. coli* levels, two in the Upper Basin and one in the Mid-Basin.

The heavier rain began in the evening of October 24, and continued into October 26. This heavy rain resulted in levels of both indicator bacteria above the standards for October 25, 26, and 27 at nearly all locations. By October 28 and 29, *Enterococcus* counts had subsided, although there were still some hot spots at the Upper Basin stations 001 and 002. Unlike *Enterococcus*, *E. coli* counts remained high at most stations on October 28, although by October 29 counts were below the standard at all locations but station 005.

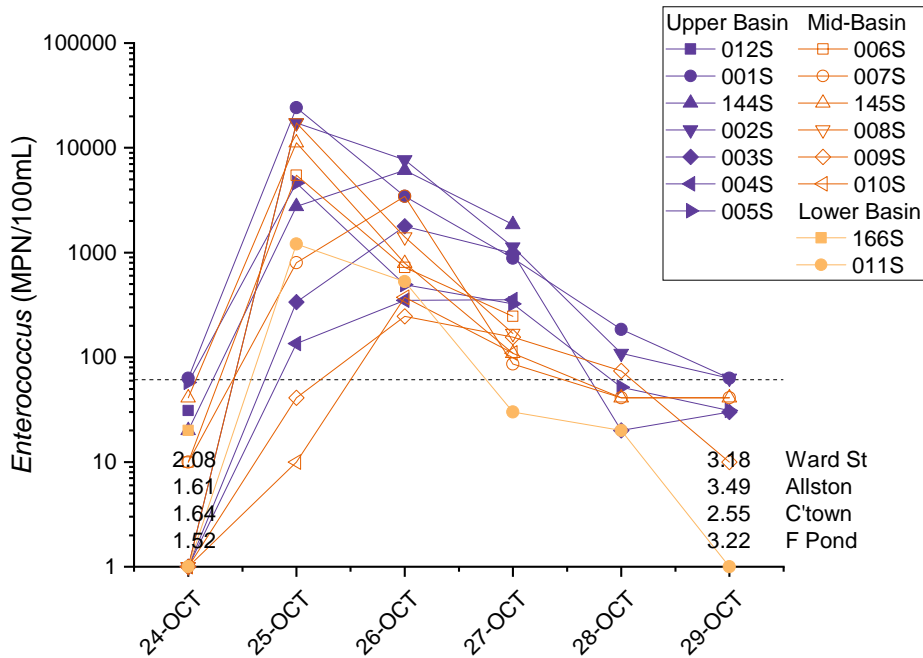
**Table 5-26. Rainfall Characteristics for the October 24, 2017 Storm.**

Gauge	Storm Start (Oct 24, EST)	Storm End (Oct 26, EST)	Duration (hrs)	Total Rainfall (in)	Peak Intensity (in/15mins)	Peak Intensity (in/hr)
Ward St. (MWRA)	0415	10/24 0615	2	0.14	0.04	0.12
	1945	1745	46	1.94	0.36	0.68
Allston (BWSC)	0415	10/24 0615	2	0.11	0.04	0.08
	1945	1800	46.25	1.5	0.21	0.46
Charlestown (BWSC)	0445	1815	61.5	1.64	0.22	0.57
Fresh Pond (USGS)	0415	10/24 0615	2	0.07	0.02	0.05
	2000	1845	46.75	1.45	0.22	0.39

**Table 5-27. *Enterococcus* and *E. coli* results from the Charles River, October 24-29, 2017.**

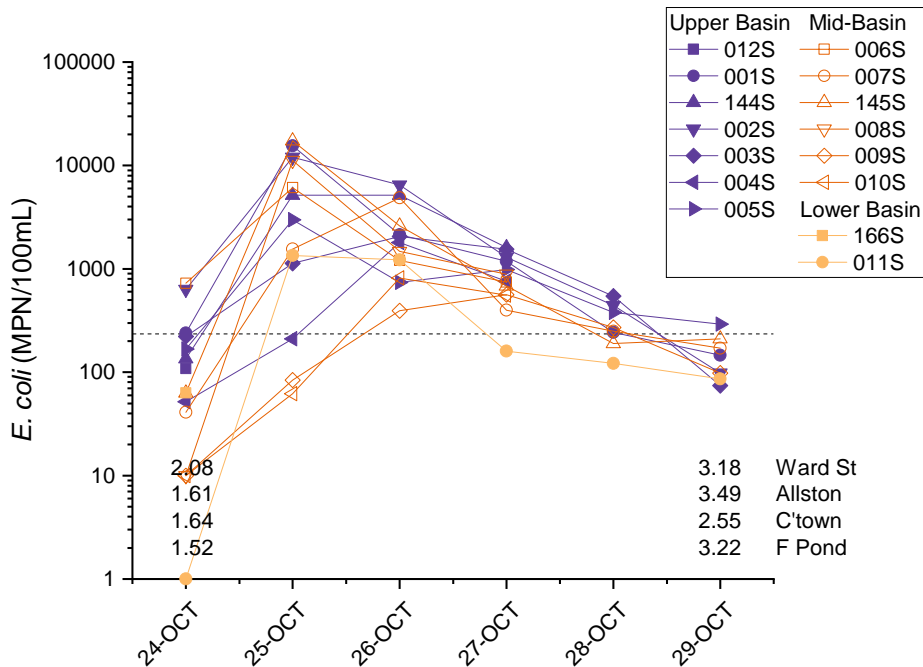
	Single Sample Std	Monitoring Location														
		012	001	144	002	003	004	005	006	007	145	008	009	010	166	011
<i>Enterococcus</i>																
10/24	61	31	63	20	1	1	1	57.5	10	10	41	1	1	1	20	1
10/25	61		<b>24200</b>	<b>2760</b>	<b>17300</b>	<b>336</b>	<b>135</b>	<b>4610</b>	<b>5480</b>	<b>801</b>	<b>11200</b>	<b>17300</b>	41	10		<b>1210</b>
10/26	61		<b>3450</b>	<b>6130</b>	<b>7700</b>	<b>1780</b>	<b>350</b>	<b>495</b>	<b>723</b>	<b>3450</b>	<b>789</b>	<b>1410</b>	<b>246</b>	<b>373</b>		<b>529</b>
10/27	61		<b>880</b>	<b>1860</b>	<b>1130</b>	<b>985</b>	<b>355</b>	<b>323</b>	<b>246</b>	<b>86</b>	<b>109</b>	<b>169</b>	<b>156</b>	<b>110</b>		30
10/28	61		<b>185</b>		<b>109</b>	20		52		41	41		<b>74</b>			20
10/29	61		<b>63</b>		<b>63</b>	30		31		41	41		10			1
<i>E. coli</i>																
10/24	235	108	<b>240</b>	135	<b>631</b>	221	52	168	<b>727</b>	41	63	10	10	10	63	1
10/25	235		<b>15500</b>	<b>5170</b>	<b>12000</b>	<b>1130</b>	211	<b>2990</b>	<b>6130</b>	<b>1560</b>	<b>17300</b>	<b>11200</b>	84	62		<b>1350</b>
10/26	235		<b>2140</b>	<b>5170</b>	<b>6490</b>	<b>2060</b>	<b>1790</b>	<b>738</b>	<b>1210</b>	<b>4880</b>	<b>2600</b>	<b>1480</b>	<b>393</b>	<b>816</b>		<b>1220</b>
10/27	235		<b>1180</b>	<b>1610</b>	<b>1300</b>	<b>1550</b>	<b>762</b>	<b>985</b>	<b>743</b>	<b>399</b>	<b>683</b>	<b>886</b>	<b>563</b>	<b>556</b>		160
10/28	235		<b>243</b>		<b>441</b>	<b>546</b>		<b>379</b>		<b>250</b>	189		<b>272</b>			122
10/29	235		146		98	74		<b>292</b>		171	211		98			86

Results in **bold** indicate samples that exceeded the single sample standard of 104 colonies/100mL for *Enterococcus* or 235 colonies/100mL for *E. coli*.



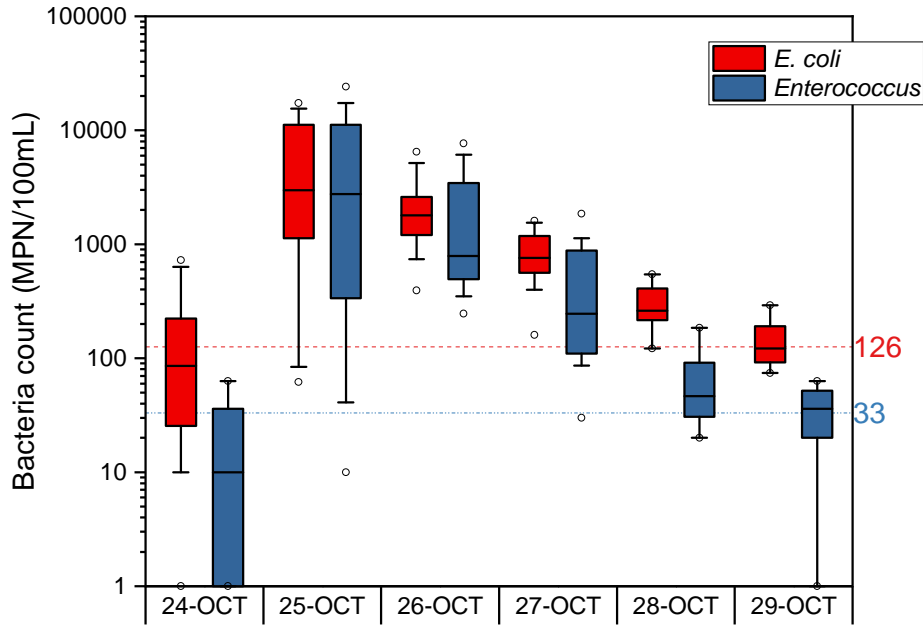
**Figure 5-31. Charles River *Enterococcus* counts, October 24-29, 2017.**

Time series of *Enterococcus* counts after the October 24-26 storm. Dashed line is the MADEP single sample standard of 61 MPN/100mL. Initial samples on October 24 were collected before the majority of the rainfall. There were no CSO discharges during this storm. Rainfall (inches) from the MWRA Ward Street, BWSC Allston and Charlestown, and USGS Fresh Pond rain gauges is shown above the day the rain fell.



**Figure 5-32. Charles River *E. coli* counts, October 24-29, 2017.**

Time series of *E. coli* counts after the October 24-26 storm. Dashed line is the MADEP single sample standard of 235 MPN/100mL. Initial samples on October 24 were collected before the majority of the rainfall. There were no CSO discharges during this storm. Rainfall (inches) from the MWRA Ward Street, BWSC Allston and Charlestown, and USGS Fresh Pond rain gauges is shown above the day the rain fell.



**Figure 5-33. Charles River bacteria samples by date, October 24-29, 2017.**

Distribution plot of bacteria samples (both *Enterococcus* and *E. coli*) collected immediately after the October 24-26 storm. The dotted line shows the MA DEP *Enterococcus* standard and the dashed line the MA DEP *E. coli* standard.

### 5.12 October 29-30, 2017: Charles River

The storm that began on October 29 was the largest storm in terms of estimated CSO contribution in 2017, providing almost 31% of the CSO discharged during the year by volume. Unlike some of the other large storms in this section, CSO was discharged into the Charles during this storm. The Cottage Farm CSO facility discharged treated CSO to the Charles the morning of October 30, and the MWR hydraulic model indicates that the untreated CSO outfalls of MWR018, MWR019, CAM005, and CAM007 also discharged. The Cambridge hydraulic model concurs with the discharges of CAM005 and CAM007, and also adds a discharge at CAM017.

Samples were collected on October 29 before the rain began in the late morning. Two samples from the Upper Basin were just barely over the *Enterococcus* standard. By the next day, October 30, the effects of the storm were evident, with counts over the standard for both indicator species at all locations. Station 003, which is just downstream of the CAM005 discharge, had very high *Enterococcus* and *E. coli* counts. However, *Enterococcus* counts were actually higher at the two stations (001 and 002) upstream of the discharge. Station 009 is the closest location to MWR019, and also showed high counts for both indicator species. Unfortunately, station 006, which is downstream of the Cottage Farm outfall, could not be sampled on October 29.

For the next three days (October 31 to November 2), counts for both indicators remained above the standards at all locations (with the single exception of *E. coli* at 005), although they declined day-to-day. Counts at station 006 were elevated, but lower than 005, the station upstream of the Cottage Farm

outfall, and lower than 007, the next station downstream from 006. By November 3, about half the locations were below the *Enterococcus* standard, and the majority of the locations were below the *E. coli* standard.

November 4 was the final day of sampling for this storm. Most of the Upper Basin sites still showed elevated *Enterococcus* levels (which may have been influenced by a very small rainfall the afternoon of November 3 ranging from 0.01 to 0.02 inches at the gauges), while downstream counts were well below the standard. *E. coli* counts were below the standard at all but one location, 003, where counts actually increased from the day before.

**Table 5-28. Rainfall Characteristics for the October 29, 2017 Storm.**

Gauge	Storm Start (Oct 29, EST)	Storm End (Oct 30, EST)	Duration (hrs)	Total Rainfall (in)	Peak Intensity (in/15mins)	Peak Intensity (in/hr)
Ward St. (MWRA)	1130	0330	16	3.18	0.35	0.76
Allston (BWSC)	1100	0715	20.25	3.49	0.34	0.91
Charlestown (BWSC)	1145	1115	23.5	2.55	0.21	0.59
Fresh Pond (USGS)	1100	1045	23.75	3.22	0.40	1.00

**Table 5-29. CSO Discharges in the October 29-30, 2017 Storm, from MWRA Meter Records and MWRA Hydraulic Model Output.**

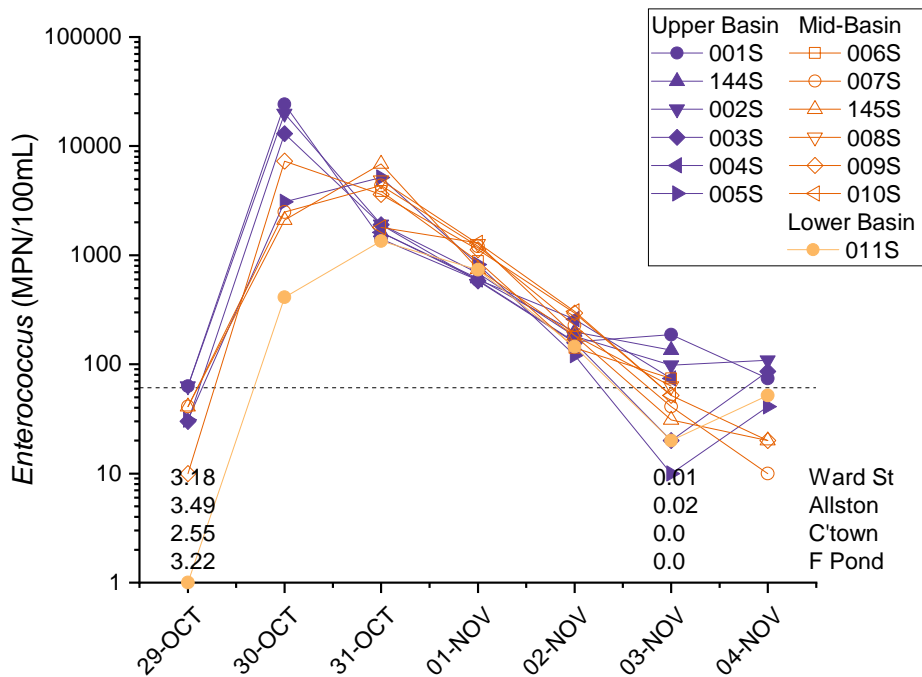
Outfall	Source of Discharge Estimate	Discharge Date	Duration (hours)	Volume (MG)
Cottage Farm (MWR201)	Meter	10/30/17	4.66	21.9
CAM005	Model predicted	10/30/17	4.49	1.66
MWR018	Model predicted	10/30/17	2.20	2.08
CAM007	Model predicted	10/30/17	1.98	1.24
MWR019	Model predicted	10/30/17	1.23	0.22



**Table 5-30. *Enterococcus* and *E. coli* results from the Charles River, October 29-November 4, 2017.**

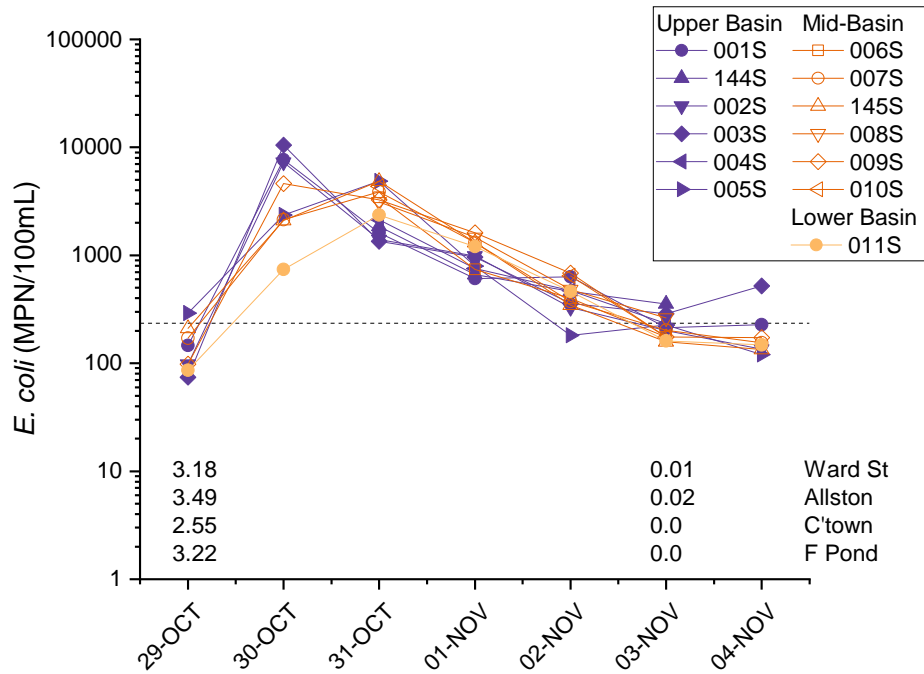
	Single Sample Std	Monitoring Location														
		012	001	144	002	003	004	005	006	007	145	008	009	010	166	011
<i>Enterococcus</i>																
10/29	61		<b>63</b>		<b>63</b>	30		31		41	41		10			1
10/30	61		<b>24200</b>		<b>19900</b>	<b>13000</b>		<b>3080</b>		<b>2480</b>	<b>2100</b>		<b>7270</b>			<b>413</b>
10/31	61		<b>1410</b>	<b>1620</b>	<b>1920</b>	<b>1900</b>	<b>1620</b>	<b>5170</b>	<b>3870</b>	<b>4350</b>	<b>6870</b>	<b>4880</b>	<b>3610</b>	<b>1790</b>		<b>1350</b>
11/1	61		<b>591</b>	<b>613</b>	<b>683</b>	<b>581</b>	<b>598</b>	<b>820</b>	<b>884</b>	<b>1210</b>	<b>744</b>	<b>1270</b>	<b>1120</b>	<b>1300</b>		<b>733</b>
11/2	61		<b>161</b>	<b>199</b>	<b>181</b>	<b>158</b>	<b>259</b>	<b>121</b>	<b>141</b>	<b>228</b>	<b>183</b>	<b>183</b>	<b>295</b>	<b>305</b>		<b>145</b>
11/3	61		<b>187</b>	<b>135</b>	<b>98</b>	<b>20</b>	<b>74</b>	<b>10</b>	<b>74</b>	<b>41</b>	<b>31</b>	<b>63</b>	<b>52</b>	<b>52</b>		<b>20</b>
11/4	61		<b>74</b>		<b>109</b>	<b>86</b>		<b>41</b>		<b>10</b>	<b>20</b>		<b>20</b>			<b>52</b>
<i>E. coli</i>																
10/29	235		146		98	74		292		171	211		98			86
10/30	235		<b>7700</b>		<b>7270</b>	<b>10500</b>		<b>2360</b>		<b>2140</b>	<b>2100</b>		<b>4610</b>			<b>738</b>
10/31	235		<b>1620</b>	<b>1850</b>	<b>1400</b>	<b>1350</b>	<b>2140</b>	<b>4880</b>	<b>3450</b>	<b>3870</b>	<b>4880</b>	<b>3130</b>	<b>3260</b>	<b>4350</b>		<b>2360</b>
11/1	235		<b>609</b>	<b>663</b>	<b>988</b>	<b>959</b>	<b>754</b>	<b>794</b>	<b>738</b>	<b>1310</b>	<b>1310</b>	<b>1470</b>	<b>1620</b>			<b>1210</b>
11/2	235		<b>631</b>	<b>464</b>	<b>328</b>	<b>359</b>	<b>471</b>	<b>181</b>	<b>399</b>	<b>373</b>	<b>345</b>	<b>480</b>	<b>683</b>	<b>644</b>		<b>464</b>
11/3	235		213	<b>354</b>	201	<b>287</b>	233	226	175	203	158	<b>262</b>	175	175		161
11/4	235		228		135	<b>520</b>		120		155	134		173			148

Results in **bold** indicate samples that exceeded the single sample standard of 104 colonies/100mL for *Enterococcus* or 235 colonies/100mL for *E. coli*.



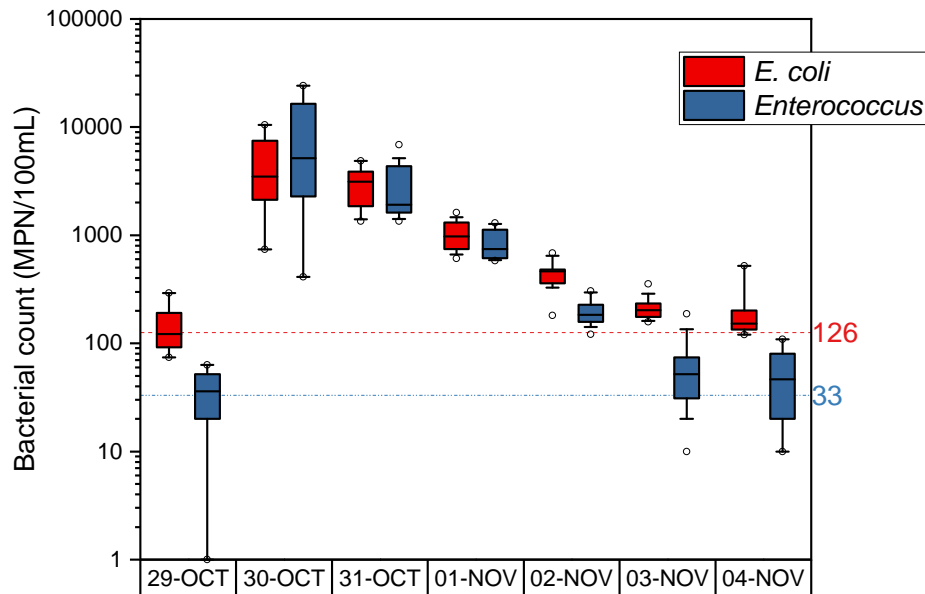
**Figure 5-34. Charles River *Enterococcus* counts, October 29-November 4, 2017.**

Time series of *Enterococcus* counts after the October 29-30 storm. Dashed line is the MADEP single sample standard of 61 MPN/100mL. Initial samples on October 29 were collected before the majority of the rainfall. There were treated CSO discharges during this storm from Cottage Farm, and model predicted untreated CSO discharges from MWR018, MWR019, CAM005, CAM007, and possibly CAM017. Rainfall from the MWRA Ward Street, BWSC Allston and Charlestown, and USGS Fresh Pond rain gauges is shown above the day the rain fell.



**Figure 5-35. Charles River *E. coli* counts, October 29-November 4, 2017.**

Time series of *E. coli* counts after the October 29-30 storm. Dashed line is the MADEP single sample standard of 235 MPN/100mL. Initial samples on October 29 were collected before the majority of the rainfall. There were treated CSO discharges during this storm from Cottage Farm, and model predicted untreated CSO discharges from MWR018, MWR019, CAM005, CAM007, and possibly CAM017. Rainfall from the MWRA Ward Street, BWSC Allston and Charlestown, and USGS Fresh Pond rain gauges is shown above the day the rain fell.



**Figure 5-36. Charles River bacteria samples by date, October 29-November 4, 2017.**

Distribution plot of bacteria samples (both *Enterococcus* and *E. coli*) collected immediately after the October 29-30 storm. The dotted line shows the MA DEP *Enterococcus* standard and the dashed line the MA DEP *E. coli* standard.

## 6 Use of Local Rain Gauge Data for Rainfall Categorization

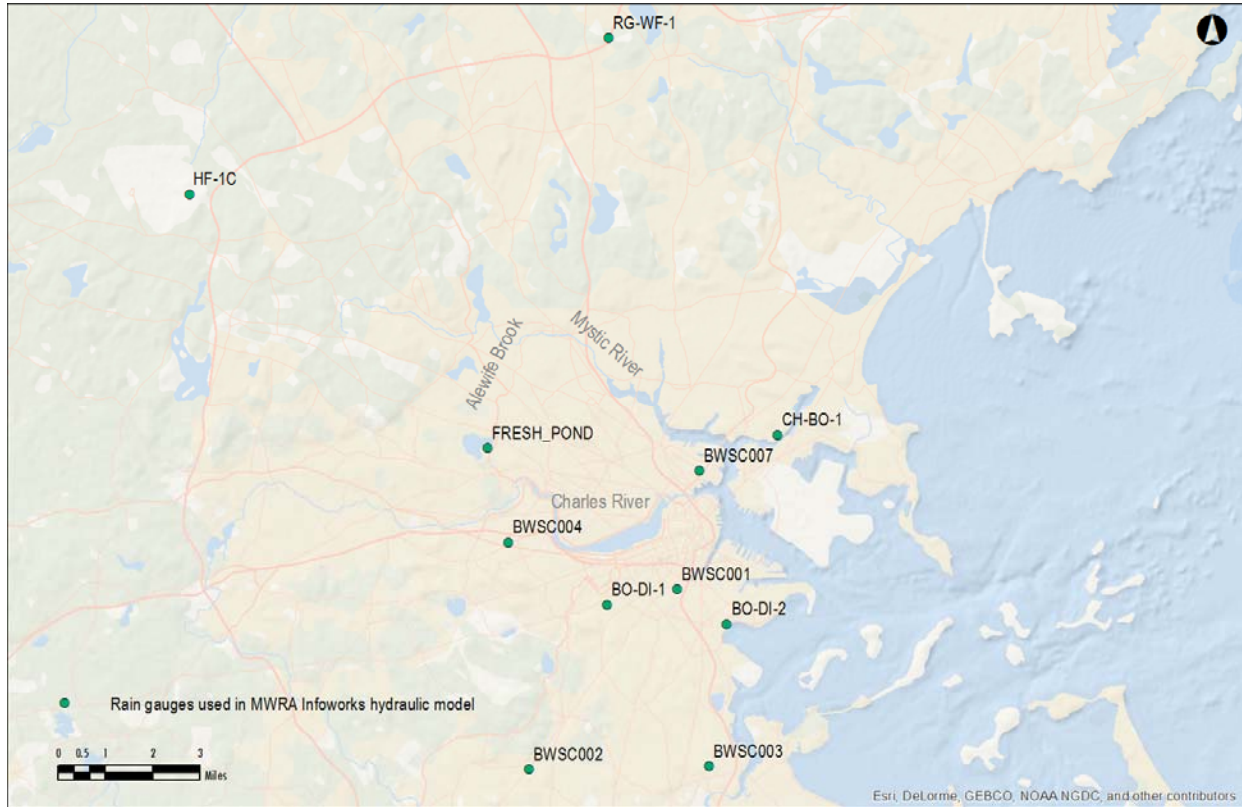
Numerous earlier figures in this report use rainfall categories of Dry/Damp/Wet or Dry/Damp/Light Rain/Heavy Rain (e.g., Figure 3-5, etc.). In past reports, these categories have been based on daily rainfall data collected at the NOAA rain gauge at Logan Airport, which depending on the spatial characteristics of a specific storm, may or may not give an accurate picture of the total rainfall amount in a certain area. As CSO activations are heavily influenced by rainfall in the area “served” by the CSO, MADEP requested that more localized rainfall data be used by MWRA.

For this report, all rainfall conditions (with several exceptions, see below) are calculated from the rain gauge most local to the sampling station. The pairings of local rain gauges with sampling locations is below in Table 6-1. These local rain gauges are maintained by MWRA, BWSC, and USGS (Figure 6-1). These are the same gauges used by the Authority’s Infoworks sewer system hydraulic model. These gauges report not only rainfall depth, but also rainfall intensity, generally in 15 minute intervals. Due to the greater temporal resolution of the local rain gauges over the Logan gauge, antecedent rainfall can be calculated precisely 24, 48, or 72 hours (or, if needed, any arbitrary number) prior to the exact sample collection time.

The only exceptions to the use of local rain gauges are Figures 3-7, 3-8, 4-9, and 4-10 which present data dating back to 1989. As the Logan rain gauge is the only gauge available with a complete data set for the entirety of the period, for consistency the rainfall conditions on those plots are calculated using the Logan rain gauge data for the entire 1989-2017 period.

**Table 6-1. Rain gauges nearest to MWRA sampling locations.**

Charles River		Mystic River/Alewife Brook	
Sampling Location	Nearest Rain Gauge	Sampling Location	Nearest Rain Gauge
012	USGS Fresh Pond	174	USGS Fresh Pond
001	USGS Fresh Pond	074	USGS Fresh Pond
144	USGS Fresh Pond	172	USGS Fresh Pond
002	USGS Fresh Pond	070	USGS Fresh Pond
003	USGS Fresh Pond	083	USGS Fresh Pond
004	BWSC Allston	057	USGS Fresh Pond
005	BWSC Allston	066	USGS Fresh Pond
006	BWSC Allston	056	USGS Fresh Pond
007	MWRA Ward St.	177	USGS Fresh Pond
145	MWRA Ward St.	067	BWSC Charlestown
008	MWRA Ward St.	059	BWSC Charlestown
009	BWSC Charlestown	176	BWSC Charlestown
010	BWSC Charlestown	167	BWSC Charlestown
166	BWSC Charlestown	052	BWSC Charlestown
011	BWSC Charlestown	069	BWSC Charlestown
		137	BWSC Charlestown



**Figure 6-1. Map of rain gauges utilized by MWRA.**

Rain gauges used in the MWRA’s Infoworks regional sewer system hydraulic model. Of the eleven gauges, BO-DI-1 (MWRA Ward St.), BWSC004 (BWSC Allston), BWSC007 (BWSC Charlestown), and FRESH\_POND (USGS Fresh Pond) are the most relevant local gauges for the Charles River and Alewife Brook/Upper Mystic River Variance waters.

## 7 References

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## **APPENDICES**

Appendix I  
2017 raw data, laboratory analyses

Appendix II  
2017 raw data, physical profile results

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## **APPENDIX I**

2017 raw data for laboratory results.

Non-detected results have been converted to detection limit for all results except for bacteria, which are converted to 0.

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2017 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
012	1/3/17 10:41 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.89	0.89	0.96	20.5	134	
012	1/18/17 11:23 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.36	0.66	0.66	41.5	134.5	
012	1/30/17 11:00 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	0	31	
012	2/28/17 10:36 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	10	20	
012	3/13/17 9:36 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.02	0	36	
012	3/29/17 10:22 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.06	0.78	1.26	98	108	
012	4/14/17 9:22 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.02	10	52	
012	4/25/17 9:56 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.89	0.89	0.89	31	30.5	
012	5/11/17 10:16 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	86	3080	
012	5/22/17 9:38 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.12	0.12	0.12	52	332	
012	6/5/17 9:26 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.59	0.77	0.77	293.5	403	
012	6/19/17 9:56 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.03	0.03	0.05	107	373	
012	7/7/17 9:02 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.3	0.3	0.3	41	98	
012	7/21/17 10:14 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	85	188.5	
012	8/1/17 10:02 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	86	323	
012	8/14/17 9:57 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.1	269	3450	
012	8/30/17 10:26 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.07	0.07	0.07	200	707	
012	9/12/17 10:16 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	41	146	
012	9/26/17 10:00 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	10	173	
012	10/13/17 10:30 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.01	10	406	
012	10/24/17 10:06 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.07	0.07	0.07	31	108	
012	11/6/17 11:13 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.08	0.08	0.08	74	301	
012	11/20/17 11:13 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.23	0.32	161	97	
012	12/4/17 11:22 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	0	52	
001	3/23/17 9:20 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	0	63	
001	3/27/17 9:06 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.48	0.48	0.56	0	10	
001	3/28/17 10:10 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.72	1.2	1.2	10	173	
001	3/29/17 10:07 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.06	0.78	1.26	86	521	
001	3/30/17 8:56 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.06	0.78	10	109	
001	3/31/17 8:46 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.87	0.87	0.93	31	94	
001	4/26/17 9:29 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.56	1.45	1.45	183	780	
001	4/27/17 8:46 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.56	1.45	86	243	
001	4/28/17 9:01 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.01	0.57	52	226	
001	4/29/17 8:10 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.01	0.01	10	97	
001	4/30/17 7:50 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.01	0.02	41	63	
001	5/1/17 9:16 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.01	0.01	20	41	
001	5/3/17 8:52 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.19	0.19	86	218	
001	5/5/17 8:41 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.64	0.64	0.64	52	146	
001	5/26/17 9:10 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.55	1.18	1.18	3450	3080	
001	5/27/17 8:17 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.55	1.18	305	586	
001	5/28/17 8:40 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.55	142	171	
001	5/29/17 8:31 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.05	0.05	0.05	108	173	
001	5/30/17 8:38 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.05	0.05	52	156	
001	6/6/17 8:29 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.8	1.39	1.57	6130	2060	
001	6/7/17 8:52 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.04	0.84	1.43	413	1190	

2017 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
001	6/8/17 8:57 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.04	0.84	132	309	
001	6/9/17 8:58 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.04	98	259	
001	6/13/17 9:35 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.53	0.53	0.53	20	189	
001	6/14/17 9:15 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.53	0.53	63	189	
001	6/15/17 8:58 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.53	41	246	
001	6/16/17 8:35 AM	S	CHARLES RIVER	UPPER BASIN	0.1	2.13	2.13	2.13	31	148	
001	7/13/17 9:14 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.14	1.47	1.64	2600	5790	
001	7/14/17 9:30 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.14	1.47	684	830	
001	7/15/17 8:20 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.14	52	419	
001	7/16/17 7:40 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	20	135	
001	7/17/17 9:29 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	20	183	
001	7/18/17 9:25 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.12	0.12	0.12	51	332	
001	8/19/17 9:38 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.25	0.25	96	529	
001	8/20/17 8:21 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.01	0.25	0	256	
001	8/21/17 9:44 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.01	20	86	
001	8/22/17 9:31 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	41	119	
001	8/23/17 9:05 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.04	0.04	0.04	4610	24200	
001	8/24/17 9:28 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.04	0.04	121	1070	
001	8/25/17 10:07 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.04	20	120	
001	8/28/17 9:28 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	20	160	
001	9/1/17 8:45 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.07	457	594	
001	9/6/17 9:15 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.22	0.22	0.22	41	218	
001	9/18/17 9:28 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	41	109	
001	9/19/17 9:00 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.04	0.04	0.04	496	886	
001	9/20/17 8:26 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.27	0.31	0.31	576	428	
001	9/21/17 9:00 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.27	0.31	364	683	
001	9/22/17 8:40 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.16	0.16	0.43	108	441	
001	10/24/17 9:50 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.07	0.07	0.07	63	240	
001	10/25/17 9:15 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1.29	1.36	1.36		15500	
001	10/26/17 9:05 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.35	1.64	1.71	3450	2140	
001	10/27/17 9:00 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.35	1.64	880	1180	
001	10/28/17 8:10 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.35	185	243	
001	10/29/17 8:21 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1	1	1	63	146	
001	10/30/17 9:26 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.94	1.94	1.94	24200	7700	
001	10/31/17 9:15 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.94	1.94	1410	1620	
001	11/1/17 8:35 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.94	591	609	
001	11/2/17 8:55 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	161	631	
001	11/3/17 8:54 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.01	0.01	187	213	
001	11/4/17 8:15 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.01	0.01	74	228	
144	3/27/17 8:54 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.48	0.48	0.56	10	108	
144	3/28/17 8:34 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.72	1.2	1.2	20	110	
144	3/29/17 9:08 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.06	0.78	1.26	63	323	
144	3/30/17 8:44 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.06	0.78	20	41	
144	3/31/17 8:36 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.87	0.87	0.93	0	20	
144	5/1/17 9:03 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.01	0.01	20	30	

2017 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
144	5/3/17 8:41 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.19	0.19	41	74	
144	6/7/17 9:46 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.04	0.84	1.43	504	1520	
144	6/8/17 8:44 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.04	0.84	63	384	
144	6/13/17 9:23 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.53	0.53	0.53	10	132	
144	6/14/17 9:05 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.53	0.53	74	134	
144	6/15/17 8:48 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.53	41	110	
144	6/16/17 8:23 AM	S	CHARLES RIVER	UPPER BASIN	0.1	2.13	2.13	2.13	10	135	
144	7/13/17 9:05 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.14	1.47	1.64	6490	9800	
144	7/17/17 9:14 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	10	134	
144	7/18/17 9:11 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.12	0.12	0.12	31	121	
144	8/22/17 9:20 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	41	145	
144	8/23/17 8:52 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.04	0.04	0.04	51	216	
144	8/24/17 9:14 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.04	0.04	74	1920	
144	8/25/17 9:53 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.04	10	175	
144	8/28/17 9:12 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	0	98	
144	9/1/17 9:13 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.07	63	288	
144	9/6/17 9:04 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.22	0.22	0.22	74	275	
144	9/18/17 9:13 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	10	74	
144	9/19/17 8:53 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.04	0.04	0.04	20	275	
144	10/24/17 9:11 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.07	0.07	0.07	20	135	
144	10/25/17 8:58 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1.29	1.36	1.36	2760	5170	
144	10/26/17 8:58 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.35	1.64	1.71	6130	5170	
144	10/27/17 9:32 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.35	1.64	1860	1610	
144	10/31/17 9:22 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.94	1.94	1620	1850	
144	11/1/17 9:14 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.94	613	663	
144	11/2/17 8:43 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	199	464	
144	11/3/17 8:41 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.01	0.01	135	354	
002	3/23/17 9:12 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	31	74	
002	3/27/17 8:48 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.48	0.48	0.56	0	74	
002	3/28/17 8:29 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.72	1.2	1.2	41	148	
002	3/29/17 9:02 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.06	0.78	1.26	98	388	
002	3/30/17 8:38 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.06	0.78	31	52	
002	3/31/17 8:29 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.87	0.87	0.93	0	74	
002	4/26/17 9:22 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.56	1.45	1.45	228	359	
002	4/27/17 8:38 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.56	1.45	52	160	
002	4/28/17 8:54 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.01	0.57	41	134	
002	4/29/17 8:03 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.01	0.01	10	98	
002	4/30/17 7:47 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.01	0.02	30	74	
002	5/1/17 8:56 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.01	0.01	20	52	
002	5/3/17 8:33 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.19	0.19	41	110	
002	5/5/17 8:34 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.64	0.64	0.64	10	98	
002	5/26/17 9:03 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.55	1.18	1.18	2910	3080	
002	5/27/17 8:10 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.55	1.18	472	504	
002	5/28/17 8:23 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.55	86	135	
002	5/29/17 8:02 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.05	0.05	0.05	74	146	

2017 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
002	5/30/17 8:30 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.05	0.05	31	98	
002	6/6/17 8:19 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.8	1.39	1.57	4350	3260	
002	6/7/17 9:40 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.04	0.84	1.43	613	1550	
002	6/8/17 8:37 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.04	0.84	161	350	
002	6/9/17 8:50 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.04	74	521	
002	6/13/17 9:15 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.53	0.53	0.53	20	121	
002	6/14/17 8:56 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.53	0.53	10	145	
002	6/15/17 8:39 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.53	52	173	
002	6/16/17 8:18 AM	S	CHARLES RIVER	UPPER BASIN	0.1	2.13	2.13	2.13	41	132	
002	7/13/17 8:57 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.14	1.47	1.64	5480	11200	
002	7/14/17 9:15 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.14	1.47	951	1940	
002	7/15/17 8:10 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.14	74	384	
002	7/16/17 7:27 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	10	169	
002	7/17/17 9:04 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	10	146	
002	7/18/17 9:03 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.12	0.12	0.12	51	86	
002	8/19/17 9:28 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.25	0.25	0	74	
002	8/20/17 8:11 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.01	0.25	52	2140	
002	8/21/17 9:35 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.01	10	798	
002	8/22/17 9:10 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	10	171	
002	8/23/17 8:44 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.04	0.04	0.04	86	341	
002	8/24/17 9:05 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.04	0.04	63	495	
002	8/25/17 9:42 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.04	0	201	
002	8/28/17 9:04 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	0	52	
002	9/1/17 9:06 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.07	20	52	
002	9/6/17 8:55 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.22	0.22	0.22	10	309	
002	9/18/17 9:02 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	0	158	
002	9/19/17 8:46 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.04	0.04	0.04	31	211	
002	9/20/17 8:17 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.27	0.31	0.31	86	313	
002	9/21/17 8:52 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.27	0.31	305	771	
002	9/22/17 8:31 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.16	0.16	0.43	20	379	
002	10/24/17 9:04 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.07	0.07	0.07	0	631	
002	10/25/17 8:49 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1.29	1.36	1.36	17300	12000	
002	10/26/17 8:53 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.35	1.64	1.71	7700	6490	
002	10/27/17 9:23 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.35	1.64	1130	1300	
002	10/28/17 8:00 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.35	109	441	
002	10/29/17 8:15 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1	1	1	63	98	
002	10/30/17 9:18 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.94	1.94	1.94	19900	7270	
002	10/31/17 9:16 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.94	1.94	1920	1400	
002	11/1/17 9:07 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.94	683	988	
002	11/2/17 8:39 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	181	328	
002	11/3/17 8:32 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.01	0.01	98	201	
002	11/4/17 8:05 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.01	0.01	109	135	
003	3/23/17 9:00 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	10	41	
003	3/27/17 8:35 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.48	0.48	0.56	10	97	
003	3/28/17 8:18 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.72	1.2	1.2	240	547	

2017 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
003	3/29/17 8:48 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.06	0.78	1.26	96	294	
003	3/30/17 8:25 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.06	0.78	10	41	
003	3/31/17 8:15 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.87	0.87	0.93	10	345	
003	4/26/17 9:12 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.56	1.45	1.45	384	624	
003	4/27/17 8:26 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.56	1.45	74	323	
003	4/28/17 8:48 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.01	0.57	0	496	
003	4/29/17 7:58 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.01	0.01	73	148	
003	4/30/17 7:44 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.01	0.02	10	160	
003	5/1/17 8:43 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.01	0.01	41	74	
003	5/3/17 8:18 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.19	0.19	122	299	
003	5/5/17 8:25 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.64	0.64	0.64	10	52	
003	5/26/17 8:55 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.55	1.18	1.18	1720	2610	
003	5/27/17 7:57 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.55	1.18	275	683	
003	5/28/17 8:12 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.55	41	816	
003	5/29/17 7:47 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.05	0.05	0.05	495	313	
003	5/30/17 8:22 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.05	0.05	31	143	
003	6/6/17 8:11 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.8	1.39	1.57	1430	1720	
003	6/7/17 9:26 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.04	0.84	1.43	733	1110	
003	6/8/17 8:25 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.04	0.84	122	545	
003	6/9/17 8:35 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.04	41	327	
003	6/13/17 9:01 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.53	0.53	0.53	0	156	
003	6/14/17 8:40 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.53	0.53	10	85	
003	6/15/17 8:23 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.53	10	98	
003	6/16/17 8:05 AM	S	CHARLES RIVER	UPPER BASIN	0.1	2.13	2.13	2.13	0	110	
003	7/13/17 8:41 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.14	1.47	1.64	631	1330	
003	7/14/17 9:00 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.14	1.47	413	1180	
003	7/15/17 8:03 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.14	81	422	
003	7/16/17 7:15 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	73	609	
003	7/17/17 8:48 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	20	175	
003	7/18/17 8:45 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.12	0.12	0.12	10	132	
003	8/19/17 9:18 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.25	0.25	41	63	
003	8/20/17 8:06 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.01	0.25	1010	145	
003	8/21/17 9:25 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.01	0	243	
003	8/22/17 8:56 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	10	158	
003	8/23/17 8:31 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.04	0.04	0.04	41	145	
003	8/24/17 8:52 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.04	0.04	31	73	
003	8/25/17 9:23 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.04	20	74	
003	8/28/17 8:46 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	0	52	
003	9/1/17 8:51 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.07	10	52	
003	9/6/17 8:40 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.22	0.22	0.22	0	41	
003	9/18/17 8:47 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	31	354	
003	9/19/17 8:33 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.04	0.04	0.04	10	175	
003	9/20/17 8:08 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.27	0.31	0.31	187	598	
003	9/21/17 8:42 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.27	0.31	262	1310	
003	9/22/17 8:21 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.16	0.16	0.43	388	1940	

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Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
003	10/24/17 8:48 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.07	0.07	0.07	0	221	
003	10/25/17 8:37 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1.29	1.36	1.36	336	1130	
003	10/26/17 8:40 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.35	1.64	1.71	1780	2060	
003	10/27/17 9:09 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.35	1.64	985	1550	
003	10/28/17 7:54 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.35	20	546	
003	10/29/17 8:05 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1	1	1	30	74	
003	10/30/17 9:09 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.94	1.94	1.94	13000	10500	
003	10/31/17 9:04 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.94	1.94	1900	1350	
003	11/1/17 8:52 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.94	581	959	
003	11/2/17 8:26 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	158	359	
003	11/3/17 8:17 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.01	0.01	20	287	
003	11/4/17 7:55 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.01	0.01	86	520	
004	3/23/17 9:10 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	0	52	
004	3/27/17 8:21 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.48	0.48	0.56	20	31	
004	3/28/17 8:06 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.72	1.2	1.2	74	132	
004	3/29/17 8:36 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.06	0.78	1.26	63	288	
004	3/30/17 8:12 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.06	0.78	10	199	
004	3/31/17 8:01 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.87	0.87	0.93	10	52	
004	5/1/17 8:30 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.01	0.01	0	52	
004	5/3/17 8:03 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.19	0.19	31	145	
004	6/7/17 9:13 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.04	0.84	1.43	573	1990	
004	6/8/17 8:12 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.04	0.84	41	369	
004	6/13/17 8:45 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.53	0.53	0.53	10	31	
004	6/14/17 8:27 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.53	0.53	0	145	
004	6/15/17 8:10 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.53	10	30	
004	6/16/17 7:53 AM	S	CHARLES RIVER	UPPER BASIN	0.1	2.13	2.13	2.13	0	31	
004	7/13/17 8:27 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.14	1.47	1.64	683	2010	
004	7/14/17 8:37 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.14	1.47	86	703	
004	7/17/17 8:29 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	10	63	
004	7/18/17 8:29 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.12	0.12	0.12	0	31	
004	8/22/17 8:42 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	0	20	
004	8/23/17 8:20 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.04	0.04	0.04	0	373	
004	8/24/17 8:40 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.04	0.04	31	8160	
004	8/25/17 9:02 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.04	0	4110	
004	8/28/17 8:29 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	10	1920	
004	9/1/17 8:38 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.07	10	2760	
004	9/6/17 8:26 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.22	0.22	0.22	0	3450	
004	9/18/17 8:32 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	0	146	
004	9/19/17 8:17 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.04	0.04	0.04	0	199	
004	10/24/17 8:36 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.07	0.07	0.07	0	52	
004	10/25/17 8:24 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1.29	1.36	1.36	135	211	
004	10/26/17 8:27 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.35	1.64	1.71	350	1790	
004	10/27/17 8:57 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.35	1.64	355	762	
004	10/31/17 8:51 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.94	1.94	1620	2140	
004	11/1/17 8:35 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.94	598	754	



2017 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
004	11/2/17 8:15 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	259	471	
004	11/3/17 8:03 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.01	0.01	74	323	
005	1/3/17 10:19 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.89	0.89	0.96	121	275	
005	1/18/17 10:52 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.36	0.66	0.66	31	287	
005	1/30/17 10:20 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	20	504	
005	2/28/17 10:01 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	0	148	
005	3/23/17 9:02 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	0	31	
005	3/27/17 8:11 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.48	0.48	0.56	0	20	
005	3/28/17 7:59 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.72	1.2	1.2	10	110	
005	3/29/17 8:27 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.06	0.78	1.26	74	132	
005	3/29/17 9:53 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.06	0.78	1.26	218	228	
005	3/30/17 7:55 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.06	0.78	20	250	
005	3/31/17 7:38 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.87	0.87	0.93	0	63	
005	4/14/17 8:44 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.02	10	63	
005	4/25/17 9:19 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.89	0.89	0.89	0	0	
005	4/26/17 8:32 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.56	1.45	1.45	85	97	
005	4/27/17 8:01 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.56	1.45	131	288	
005	4/28/17 8:07 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.01	0.57	10	41	
005	4/29/17 7:37 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.01	0.01	30	41	
005	4/30/17 7:31 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.01	0.02	20	30	
005	5/1/17 8:08 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.01	0.01	10	0	
005	5/3/17 7:56 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.19	0.19	10	74	
005	5/5/17 7:47 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.64	0.64	0.64	20	20	
005	5/11/17 9:41 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	0	20	
005	5/22/17 9:16 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.12	0.12	0.12	31	63	
005	5/26/17 8:17 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.55	1.18	1.18	122	318	
005	5/27/17 7:31 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.55	1.18	547	1080	
005	5/28/17 7:20 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.55	52	299	
005	5/29/17 7:18 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.05	0.05	0.05	31	295	
005	5/30/17 7:59 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.05	0.05	30	272	
005	6/5/17 8:51 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.59	0.77	0.77	20	52	
005	6/6/17 7:38 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.8	1.39	1.57	301	2600	
005	6/7/17 9:06 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.04	0.84	1.43	878	1990	
005	6/8/17 8:04 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.04	0.84	120	512	
005	6/9/17 7:52 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.04	462	3870	
005	6/13/17 8:17 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.53	0.53	0.53	10	63	
005	6/14/17 8:15 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.53	0.53	31	142	
005	6/15/17 7:58 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.53	0	41	
005	6/16/17 7:45 AM	S	CHARLES RIVER	UPPER BASIN	0.1	2.13	2.13	2.13	10	52	
005	6/19/17 9:16 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.03	0.03	0.05	62	336	
005	7/7/17 8:31 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.3	0.3	0.3	10	97	
005	7/13/17 8:19 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.14	1.47	1.64	488	3080	
005	7/14/17 8:28 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.14	1.47	216	496	
005	7/15/17 6:54 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.14	331	345	
005	7/16/17 6:52 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	243	166	

2017 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
005	7/17/17 8:18 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	0	52	
005	7/18/17 8:21 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.12	0.12	0.12	0	63	
005	7/21/17 9:40 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	313	327	
005	8/1/17 9:18 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	20	145	
005	8/14/17 9:03 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.1	52	63	
005	8/19/17 8:58 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.25	0.25	10	63	
005	8/20/17 7:36 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.01	0.25	86	292	
005	8/21/17 8:47 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.01	30	120	
005	8/22/17 8:34 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	10	31	
005	8/23/17 8:12 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.04	0.04	0.04	0	0	
005	8/24/17 8:32 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.04	0.04	10	1310	
005	8/25/17 8:51 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.04	0	933	
005	8/28/17 8:21 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	10	691	
005	8/30/17 9:42 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.07	0.07	0.07	31	73	
005	9/1/17 8:30 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.07	20	1860	
005	9/6/17 8:16 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.22	0.22	0.22	0	2480	
005	9/12/17 9:32 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	31	85	
005	9/18/17 8:23 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	31	187	
005	9/19/17 8:10 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.04	0.04	0.04	20	141	
005	9/20/17 7:30 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.27	0.31	0.31	156	374	
005	9/21/17 7:59 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.27	0.31	305	327	
005	9/22/17 7:41 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.16	0.16	0.43	218	620	
005	9/26/17 9:22 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	30	175	
005	10/13/17 10:04 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.01	52	1140	
005	10/24/17 8:28 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.07	0.07	0.07	52	226	
005	10/24/17 9:27 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.07	0.07	0.07	63	110	
005	10/25/17 8:16 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1.29	1.36	1.36	4610	2990	
005	10/26/17 8:19 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.35	1.64	1.71	495	738	
005	10/27/17 8:48 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.35	1.64	323	985	
005	10/28/17 7:13 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.35	52	379	
005	10/29/17 7:28 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1	1	1	31	292	
005	10/30/17 8:30 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.94	1.94	1.94	3080	2360	
005	10/31/17 8:45 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.94	1.94	5170	4880	
005	11/1/17 8:27 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.94	820	794	
005	11/2/17 8:09 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	121	181	
005	11/3/17 7:58 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.01	0.01	10	226	
005	11/4/17 7:25 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.01	0.01	41	120	
005	11/6/17 10:29 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.08	0.08	0.08	41	201	
005	11/20/17 10:28 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.23	0.32	171	416	
005	12/4/17 10:42 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	98	175	
006	3/23/17 8:54 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	20	
006	3/27/17 8:05 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.48	0.48	0.56	0	52	
006	3/28/17 7:53 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.72	1.2	1.2	52	132	
006	3/29/17 8:20 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.06	0.78	1.26	109	109	
006	3/30/17 7:47 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	0.78	97	135	

2017 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
006	3/31/17 7:32 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.87	0.87	0.93	0	85	
006	5/1/17 8:01 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.01	0.01	0	41	
006	5/3/17 7:49 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.19	0.19	0	52	
006	6/7/17 9:00 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.04	0.84	1.43	1050	1660	
006	6/8/17 7:56 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.04	0.84	31	488	
006	6/13/17 8:08 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.53	0.53	0.53	0	52	
006	6/14/17 8:03 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.53	0.53	0	63	
006	6/15/17 7:52 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.53	0	31	
006	6/16/17 7:39 AM	S	CHARLES RIVER	MID-BASIN	0.1	2.13	2.13	2.13	0	10	
006	7/13/17 8:10 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.14	1.47	1.64	573	1550	
006	7/14/17 8:20 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.14	1.47	171	538	
006	7/17/17 8:12 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	31	41	
006	7/18/17 8:13 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.12	0.12	0.12	10	31	
006	8/22/17 8:29 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	10	41	
006	8/23/17 8:05 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.04	0.04	0.04	20	73	
006	8/24/17 8:24 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.04	0.04	52	272	
006	8/25/17 8:42 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.04	30	650	
006	8/28/17 8:13 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	20	331	
006	9/1/17 8:23 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.07	63	432	
006	9/6/17 8:08 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.22	0.22	0.22	10	1850	
006	9/18/17 8:13 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	86	404	
006	9/19/17 8:03 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.04	0.04	0.04	41	169	
006	10/24/17 8:22 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.07	0.07	0.07	10	727	
006	10/25/17 8:08 AM	S	CHARLES RIVER	MID-BASIN	0.1	1.29	1.36	1.36	5480	6130	
006	10/26/17 8:13 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.35	1.64	1.71	723	1210	
006	10/27/17 8:40 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.35	1.64	246	743	
006	10/31/17 8:39 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.94	1.94	3870	3450	
006	11/1/17 8:20 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.94	884	738	
006	11/2/17 8:04 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	141	399	
006	11/3/17 7:50 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.01	0.01	0.01	74	175	
007	3/23/17 8:40 AM	B	CHARLES RIVER	MID-BASIN	3.8	0	0	0	0	84	
007	3/23/17 8:40 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	10	96	
007	3/27/17 7:51 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.48	0.48	0.56	0	85	
007	3/27/17 7:51 AM	B	CHARLES RIVER	MID-BASIN	4.1	0.48	0.48	0.56	20	85	
007	3/28/17 7:37 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.72	1.2	1.2	74	175	
007	3/28/17 7:37 AM	B	CHARLES RIVER	MID-BASIN	3.9	0.72	1.2	1.2	20	213	
007	3/29/17 8:05 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.06	0.78	1.26	160	836	
007	3/29/17 8:05 AM	B	CHARLES RIVER	MID-BASIN	3.7	0.06	0.78	1.26	529	1100	
007	3/30/17 7:29 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	0.78	97	272	
007	3/30/17 7:29 AM	B	CHARLES RIVER	MID-BASIN	3.9	0	0.06	0.78	86	294	
007	3/31/17 7:18 AM	B	CHARLES RIVER	MID-BASIN	4.1	0.87	0.87	0.93	20	110	
007	3/31/17 7:18 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.87	0.87	0.93	10	86	
007	4/26/17 8:40 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.56	1.45	1.45	98	428	
007	4/27/17 8:08 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.56	1.45	85	262	
007	4/28/17 8:12 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.01	0.01	0.57	41	52	

2017 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
007	4/29/17 7:44 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.01	0.01	0	62	
007	4/30/17 7:36 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.01	0.01	0.02	0	63	
007	5/1/17 7:48 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.01	0.01	20	41	
007	5/1/17 7:48 AM	B	CHARLES RIVER	MID-BASIN	3.8	0	0.01	0.01	0	10	
007	5/3/17 7:33 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.19	0.19	20	30	
007	5/3/17 7:33 AM	B	CHARLES RIVER	MID-BASIN	4.7	0	0.19	0.19	10	63	
007	5/5/17 7:54 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.64	0.64	0.64	63	31	
007	5/26/17 8:24 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.55	1.18	1.18	413	1070	
007	5/27/17 7:38 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.55	1.18	317	457	
007	5/28/17 7:54 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.55	20	52	
007	5/29/17 7:32 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.05	0.05	0.05	20	30	
007	5/30/17 8:05 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.05	0.05	10	96	
007	6/6/17 7:44 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.8	1.39	1.57	1180	1500	
007	6/7/17 8:45 AM	B	CHARLES RIVER	MID-BASIN	4	0.04	0.84	1.43	1790	2010	
007	6/7/17 8:45 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.04	0.84	1.43	350	563	
007	6/8/17 7:41 AM	B	CHARLES RIVER	MID-BASIN	4.2	0	0.04	0.84	238	609	
007	6/8/17 7:41 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.04	0.84	0	187	
007	6/9/17 8:04 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.04	10	52	
007	6/13/17 7:51 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.53	0.53	0.53	0	86	
007	6/13/17 7:51 AM	B	CHARLES RIVER	MID-BASIN	4.8	0.53	0.53	0.53	10	11200	
007	6/14/17 7:54 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.53	0.53	0	52	
007	6/14/17 7:54 AM	B	CHARLES RIVER	MID-BASIN	3.9	0	0.53	0.53	10	41	
007	6/15/17 7:37 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.53	10	63	
007	6/15/17 7:37 AM	B	CHARLES RIVER	MID-BASIN	4.2	0	0	0.53	20	108	
007	6/16/17 7:31 AM	B	CHARLES RIVER	MID-BASIN	4.1	2.13	2.13	2.13	0	41	
007	6/16/17 7:31 AM	S	CHARLES RIVER	MID-BASIN	0.1	2.13	2.13	2.13	10	31	
007	7/13/17 7:55 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.14	1.47	1.64	327	1500	
007	7/13/17 7:55 AM	B	CHARLES RIVER	MID-BASIN	3.9	0.14	1.47	1.64	98	249	
007	7/14/17 8:03 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.14	1.47	73	373	
007	7/14/17 8:03 AM	B	CHARLES RIVER	MID-BASIN	4.7	0	0.14	1.47	31	309	
007	7/15/17 7:19 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.14	31	98	
007	7/16/17 7:02 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	74	
007	7/17/17 7:55 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	10	110	
007	7/17/17 7:55 AM	B	CHARLES RIVER	MID-BASIN	4.2	0	0	0	0	10	
007	7/18/17 8:02 AM	B	CHARLES RIVER	MID-BASIN	4.2	0.12	0.12	0.12	20	31	
007	7/18/17 8:02 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.12	0.12	0.12	20	0	
007	8/19/17 9:08 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.01	0.25	0.25	0	41	
007	8/20/17 7:44 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.01	0.25	10	20	
007	8/21/17 8:54 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.01	86	97	
007	8/22/17 8:15 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	10	74	
007	8/22/17 8:15 AM	B	CHARLES RIVER	MID-BASIN	4.2	0	0	0	84	74	
007	8/23/17 7:53 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.04	0.04	0.04	31	74	
007	8/23/17 7:53 AM	B	CHARLES RIVER	MID-BASIN	4.3	0.04	0.04	0.04	63	20	
007	8/24/17 8:08 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.04	0.04	31	697	
007	8/24/17 8:08 AM	B	CHARLES RIVER	MID-BASIN	4.6	0	0.04	0.04	41	988	

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Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
007	8/25/17 8:21 AM	B	CHARLES RIVER	MID-BASIN	4.5	0	0	0.04	41	160	
007	8/25/17 8:21 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.04	41	120	
007	8/28/17 7:57 AM	B	CHARLES RIVER	MID-BASIN	4.3	0	0	0	20	20	
007	8/28/17 7:57 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	31	63	
007	9/1/17 8:05 AM	B	CHARLES RIVER	MID-BASIN	4.7	0	0	0.07	175	199	
007	9/1/17 8:05 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.07	0	410	
007	9/6/17 7:57 AM	B	CHARLES RIVER	MID-BASIN	3.9	0.22	0.22	0.22	41	209	
007	9/6/17 7:57 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.22	0.22	0.22	20	368	
007	9/18/17 7:59 AM	B	CHARLES RIVER	MID-BASIN	3.9	0	0	0	20	231	
007	9/18/17 7:59 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	10	146	
007	9/19/17 7:47 AM	B	CHARLES RIVER	MID-BASIN	3.9	0.04	0.04	0.04	74	85	
007	9/19/17 7:47 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.04	0.04	0.04	41	201	
007	9/20/17 7:38 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.27	0.31	0.31	187	195	
007	9/21/17 8:11 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.27	0.31	173	314	
007	9/22/17 7:48 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.16	0.16	0.43	10	135	
007	10/24/17 8:09 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.07	0.07	0.07	10	41	
007	10/24/17 8:09 AM	B	CHARLES RIVER	MID-BASIN	3.9	0.07	0.07	0.07	0	10	
007	10/25/17 7:52 AM	S	CHARLES RIVER	MID-BASIN	0.1	1.29	1.36	1.36	801	1560	
007	10/25/17 7:52 AM	B	CHARLES RIVER	MID-BASIN	4	1.29	1.36	1.36	110	288	
007	10/26/17 7:59 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.35	1.64	1.71	3450	4880	
007	10/26/17 7:59 AM	B	CHARLES RIVER	MID-BASIN	3.6	0.35	1.64	1.71	373	676	
007	10/27/17 8:25 AM	B	CHARLES RIVER	MID-BASIN	4.1	0	0.35	1.64	74	419	
007	10/27/17 8:25 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.35	1.64	86	399	
007	10/28/17 7:23 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.35	41	250	
007	10/29/17 7:38 AM	S	CHARLES RIVER	MID-BASIN	0.1	1	1	1	41	171	
007	10/30/17 8:37 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.94	1.94	1.94	2480	2140	
007	10/31/17 8:25 AM	B	CHARLES RIVER	MID-BASIN	4.2	0	0.94	1.94	6870	4350	
007	10/31/17 8:25 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.94	1.94	4350	3870	
007	11/1/17 8:00 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.94	1210	1310	
007	11/1/17 8:00 AM	B	CHARLES RIVER	MID-BASIN	3.9	0	0	0.94	857	1310	
007	11/2/17 7:53 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	228	373	
007	11/2/17 7:53 AM	B	CHARLES RIVER	MID-BASIN	4.7	0	0	0	203	432	
007	11/3/17 7:39 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.01	0.01	0.01	41	203	
007	11/3/17 7:39 AM	B	CHARLES RIVER	MID-BASIN	4.4	0.01	0.01	0.01	97	131	
007	11/4/17 7:35 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.01	0.01	0	155	
145	3/23/17 8:46 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	10	
145	3/27/17 7:56 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.48	0.48	0.56	10	156	
145	3/28/17 7:43 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.72	1.2	1.2	85	487	
145	3/29/17 8:10 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.06	0.78	1.26	345	185	
145	3/30/17 7:37 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	0.78	52	98	
145	3/31/17 7:23 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.87	0.87	0.93	122	426	
145	4/26/17 8:14 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.56	1.45	1.45	467	2480	
145	4/27/17 7:35 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.56	1.45	189	529	
145	4/28/17 7:57 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.01	0.01	0.57	20	175	
145	4/29/17 7:27 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.01	0.01	20	31	

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Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
145	4/30/17 7:21 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.01	0.01	0.02	20	109	
145	5/1/17 7:54 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.01	0.01	0	0	
145	5/3/17 7:39 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.19	0.19	63	187	
145	5/5/17 7:37 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.64	0.64	0.64	10	41	
145	5/26/17 8:05 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.55	1.18	1.18	1080	933	
145	5/27/17 7:20 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.55	1.18	373	472	
145	5/28/17 6:52 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.55	193	1250	
145	5/29/17 7:00 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.05	0.05	0.05	51	97	
145	5/30/17 7:35 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.05	0.05	30	74	
145	6/6/17 7:25 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.8	1.39	1.57	4110	4110	
145	6/7/17 8:51 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.04	0.84	1.43	209	471	
145	6/8/17 7:45 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.04	0.84	41	269	
145	6/9/17 7:32 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.04	41	74	
145	6/13/17 7:59 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.53	0.53	0.53	20	19900	
145	6/14/17 8:02 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.53	0.53	0	63	
145	6/15/17 7:45 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.53	10	41	
145	6/16/17 7:35 AM	S	CHARLES RIVER	MID-BASIN	0.1	2.13	2.13	2.13	0	41	
145	7/13/17 8:01 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.14	1.47	1.64	399	4610	
145	7/14/17 8:10 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.14	1.47	10	160	
145	7/15/17 6:44 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.14	20	238	
145	7/16/17 6:42 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	41	86	
145	7/17/17 8:04 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	10	31	
145	7/18/17 8:06 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.12	0.12	0.12	30	31	
145	8/19/17 8:45 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.01	0.25	0.25	10	121	
145	8/20/17 7:26 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.01	0.25	107	52	
145	8/21/17 8:31 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.01	10	41	
145	8/22/17 8:22 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	10	31	
145	8/23/17 7:58 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.04	0.04	0.04	10	20	
145	8/24/17 8:16 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.04	0.04	0	211	
145	8/25/17 8:32 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.04	10	98	
145	8/28/17 8:03 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	10	61	
145	9/1/17 8:09 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.07	0	122	
145	9/6/17 8:01 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.22	0.22	0.22	10	31	
145	9/18/17 8:05 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	10	98	
145	9/19/17 7:53 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.04	0.04	0.04	63	275	
145	9/20/17 7:17 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.27	0.31	0.31	108	373	
145	9/21/17 7:47 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.27	0.31	512	1020	
145	9/22/17 7:28 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.16	0.16	0.43	86	455	
145	10/24/17 8:15 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.07	0.07	0.07	41	63	
145	10/25/17 7:58 AM	S	CHARLES RIVER	MID-BASIN	0.1	1.29	1.36	1.36	11200	17300	
145	10/26/17 8:05 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.35	1.64	1.71	789	2600	
145	10/27/17 8:30 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.35	1.64	109	683	
145	10/28/17 7:04 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.35	41	189	
145	10/29/17 7:18 AM	S	CHARLES RIVER	MID-BASIN	0.1	1	1	1	41	211	
145	10/30/17 8:07 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.94	1.94	1.94	2100	2100	

2017 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
145	10/31/17 8:32 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.94	1.94	6870	4880	
145	11/1/17 8:09 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.94	744	1310	
145	11/2/17 7:57 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	183	345	
145	11/3/17 7:43 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.01	0.01	0.01	31	158	
145	11/4/17 7:15 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.01	0.01	20	134	
008	3/23/17 8:34 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	84	
008	3/23/17 8:34 AM	B	CHARLES RIVER	MID-BASIN	3.7	0	0	0	0	41	
008	3/27/17 7:45 AM	B	CHARLES RIVER	MID-BASIN	3.5	0.48	0.48	0.56	0	63	
008	3/27/17 7:45 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.48	0.48	0.56	10	98	
008	3/28/17 7:32 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.72	1.2	1.2	31	158	
008	3/28/17 7:32 AM	B	CHARLES RIVER	MID-BASIN	3.9	0.72	1.2	1.2	41	262	
008	3/29/17 7:57 AM	B	CHARLES RIVER	MID-BASIN	3.1	0.06	0.78	1.26	185	278	
008	3/29/17 7:57 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.06	0.78	1.26	199	683	
008	3/30/17 7:21 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	0.78	85	231	
008	3/30/17 7:21 AM	B	CHARLES RIVER	MID-BASIN	3.3	0	0.06	0.78	63	243	
008	3/31/17 7:12 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.87	0.87	0.93	10	173	
008	3/31/17 7:12 AM	B	CHARLES RIVER	MID-BASIN	3.5	0.87	0.87	0.93	10	161	
008	5/1/17 7:41 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.01	0.01	0	31	
008	5/1/17 7:41 AM	B	CHARLES RIVER	MID-BASIN	4.2	0	0.01	0.01	20	63	
008	5/3/17 7:26 AM	B	CHARLES RIVER	MID-BASIN	3.6	0	0.19	0.19	0	52	
008	5/3/17 7:26 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.19	0.19	20	63	
008	6/7/17 8:40 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.04	0.84	1.43	464	813	
008	6/7/17 8:40 AM	B	CHARLES RIVER	MID-BASIN	5.8	0.04	0.84	1.43	1400	1920	
008	6/8/17 7:32 AM	B	CHARLES RIVER	MID-BASIN	4.3	0	0.04	0.84	318	677	
008	6/8/17 7:32 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.04	0.84	110	228	
008	6/13/17 7:46 AM	B	CHARLES RIVER	MID-BASIN	3.7	0.53	0.53	0.53	10	31	
008	6/13/17 7:46 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.53	0.53	0.53	10	41	
008	6/14/17 7:49 AM	B	CHARLES RIVER	MID-BASIN	3.8	0	0.53	0.53	20	20	
008	6/14/17 7:49 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.53	0.53	0	41	
008	6/15/17 7:32 AM	B	CHARLES RIVER	MID-BASIN	3.7	0	0	0.53	0	10	
008	6/15/17 7:32 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.53	0	10	
008	6/16/17 7:27 AM	S	CHARLES RIVER	MID-BASIN	0.1	2.13	2.13	2.13	0	10	
008	6/16/17 7:27 AM	B	CHARLES RIVER	MID-BASIN	3.9	2.13	2.13	2.13	0	20	
008	7/13/17 7:48 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.14	1.47	1.64	41	530	
008	7/13/17 7:48 AM	B	CHARLES RIVER	MID-BASIN	3.6	0.14	1.47	1.64	63	393	
008	7/14/17 7:57 AM	B	CHARLES RIVER	MID-BASIN	3.6	0	0.14	1.47	85	85	
008	7/14/17 7:57 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.14	1.47	31	173	
008	7/17/17 7:49 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	20	
008	7/17/17 7:49 AM	B	CHARLES RIVER	MID-BASIN	3.7	0	0	0	10	31	
008	7/18/17 7:56 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.12	0.12	0.12	0	20	
008	7/18/17 7:56 AM	B	CHARLES RIVER	MID-BASIN	4.1	0.12	0.12	0.12	20	0	
008	8/22/17 8:09 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	20	160	
008	8/22/17 8:09 AM	B	CHARLES RIVER	MID-BASIN	4	0	0	0	41	84	
008	8/23/17 7:46 AM	B	CHARLES RIVER	MID-BASIN	4	0.04	0.04	0.04	20	41	
008	8/23/17 7:46 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.04	0.04	0.04	52	74	

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Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
008	8/24/17 8:02 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.04	0.04	0	86	
008	8/24/17 8:02 AM	B	CHARLES RIVER	MID-BASIN	3.6	0	0.04	0.04	41	84	
008	8/25/17 8:10 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.04	0	135	
008	8/25/17 8:10 AM	B	CHARLES RIVER	MID-BASIN	3.9	0	0	0.04	0	145	
008	8/28/17 7:50 AM	B	CHARLES RIVER	MID-BASIN	3.5	0	0	0	0	20	
008	8/28/17 7:50 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	20	41	
008	9/1/17 7:58 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.07	0	63	
008	9/1/17 7:58 AM	B	CHARLES RIVER	MID-BASIN	3.4	0	0	0.07	0	84	
008	9/6/17 7:52 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.22	0.22	0.22	0	41	
008	9/6/17 7:52 AM	B	CHARLES RIVER	MID-BASIN	3.6	0.22	0.22	0.22	0	41	
008	9/18/17 7:54 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	73	
008	9/18/17 7:54 AM	B	CHARLES RIVER	MID-BASIN	3.4	0	0	0	10	195	
008	9/19/17 7:42 AM	B	CHARLES RIVER	MID-BASIN	3.4	0.04	0.04	0.04	0	52	
008	9/19/17 7:42 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.04	0.04	0.04	10	41	
008	10/24/17 8:03 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.07	0.07	0.07	0	10	
008	10/24/17 8:03 AM	B	CHARLES RIVER	MID-BASIN	3.9	0.07	0.07	0.07	0	20	
008	10/25/17 7:46 AM	S	CHARLES RIVER	MID-BASIN	0.1	1.29	1.36	1.36	17300	11200	
008	10/25/17 7:46 AM	B	CHARLES RIVER	MID-BASIN	3.5	1.29	1.36	1.36	538	573	
008	10/26/17 7:53 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.35	1.64	1.71	1410	1480	
008	10/26/17 7:53 AM	B	CHARLES RIVER	MID-BASIN	3.6	0.35	1.64	1.71	598	1290	
008	10/27/17 8:19 AM	B	CHARLES RIVER	MID-BASIN	3.4	0	0.35	1.64	203	605	
008	10/27/17 8:19 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.35	1.64	169	886	
008	10/31/17 8:19 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.94	1.94	4880	3130	
008	10/31/17 8:19 AM	B	CHARLES RIVER	MID-BASIN	3.8	0	0.94	1.94	4610	3650	
008	11/1/17 7:53 AM	B	CHARLES RIVER	MID-BASIN	3.2	0	0	0.94	1380	2250	
008	11/1/17 7:53 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.94	1270	1470	
008	11/2/17 7:47 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	183	480	
008	11/2/17 7:47 AM	B	CHARLES RIVER	MID-BASIN	3.8	0	0	0	262	428	
008	11/3/17 7:33 AM	B	CHARLES RIVER	MID-BASIN	3.7	0.01	0.01	0.01	52	183	
008	11/3/17 7:33 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.01	0.01	0.01	63	262	
009	3/23/17 8:27 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	74	
009	3/23/17 8:27 AM	B	CHARLES RIVER	MID-BASIN	8.8	0	0	0	10	74	
009	3/27/17 7:35 AM	B	CHARLES RIVER	MID-BASIN	8.9	0.48	0.48	0.56	0	0	
009	3/27/17 7:35 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.48	0.48	0.56	10	31	
009	3/28/17 7:23 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.72	1.2	1.2	0	74	
009	3/28/17 7:23 AM	B	CHARLES RIVER	MID-BASIN	8.5	0.72	1.2	1.2	0	10	
009	3/29/17 7:47 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.06	0.78	1.26	41	134	
009	3/29/17 7:47 AM	B	CHARLES RIVER	MID-BASIN	6.7	0.06	0.78	1.26	0	31	
009	3/30/17 7:11 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	0.78	86	345	
009	3/30/17 7:11 AM	B	CHARLES RIVER	MID-BASIN	6.9	0	0.06	0.78	0	160	
009	3/31/17 7:04 AM	B	CHARLES RIVER	MID-BASIN	8.6	0.87	0.87	0.93	0	20	
009	3/31/17 7:04 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.87	0.87	0.93	41	156	
009	4/26/17 8:01 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.56	1.45	1.45	20	63	
009	4/27/17 7:24 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.56	1.45	52	216	
009	4/28/17 7:48 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.01	0.01	0.57	74	209	



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Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
009	4/29/17 7:15 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.01	0.01	0	10	
009	4/30/17 7:10 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.01	0.01	0.02	20	96	
009	5/1/17 7:32 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.01	0.01	0	73	
009	5/1/17 7:32 AM	B	CHARLES RIVER	MID-BASIN	8.7	0	0.01	0.01	0	31	
009	5/3/17 7:18 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.19	0.19	0	10	
009	5/3/17 7:18 AM	B	CHARLES RIVER	MID-BASIN	8.6	0	0.19	0.19	0	10	
009	5/5/17 7:06 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.64	0.64	0.64	20	20	
009	5/26/17 7:51 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.55	1.18	1.18	10	63	
009	5/27/17 7:10 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.55	1.18	110	253	
009	5/28/17 6:40 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.55	74	209	
009	5/29/17 6:47 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.05	0.05	0.05	10	52	
009	5/30/17 7:24 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.05	0.05	0	86	
009	6/1/17 7:40 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.16	0.22	0.22	10		
009	6/6/17 7:11 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.8	1.39	1.57	31	86	
009	6/7/17 8:31 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.04	0.84	1.43	135	354	
009	6/7/17 8:31 AM	B	CHARLES RIVER	MID-BASIN	8.7	0.04	0.84	1.43	0	74	
009	6/8/17 7:23 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.04	0.84	52	309	
009	6/8/17 7:23 AM	B	CHARLES RIVER	MID-BASIN	8.1	0	0.04	0.84	0	52	
009	6/9/17 7:20 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.04	10	160	
009	6/13/17 7:40 AM	B	CHARLES RIVER	MID-BASIN	8.8	0.53	0.53	0.53	0	0	
009	6/13/17 7:40 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.53	0.53	0.53	0	52	
009	6/14/17 7:43 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.53	0.53	0	10	
009	6/14/17 7:43 AM	B	CHARLES RIVER	MID-BASIN	8.5	0	0.53	0.53	0	0	
009	6/15/17 7:26 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.53	0	20	
009	6/15/17 7:26 AM	B	CHARLES RIVER	MID-BASIN	8.5	0	0	0.53	0	0	
009	6/16/17 7:19 AM	S	CHARLES RIVER	MID-BASIN	0.1	2.13	2.13	2.13	0	20	
009	6/16/17 7:19 AM	B	CHARLES RIVER	MID-BASIN	8.7	2.13	2.13	2.13	0	0	
009	7/13/17 7:37 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.14	1.47	1.64	10	63	
009	7/13/17 7:37 AM	B	CHARLES RIVER	MID-BASIN	8.7	0.14	1.47	1.64	0	0	
009	7/14/17 7:50 AM	B	CHARLES RIVER	MID-BASIN	8.5	0	0.14	1.47	0	0	
009	7/14/17 7:50 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.14	1.47	20	63	
009	7/15/17 6:32 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.14	0	20	
009	7/16/17 6:32 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	10	20	
009	7/17/17 7:42 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	20	
009	7/17/17 7:42 AM	B	CHARLES RIVER	MID-BASIN	8.9	0	0	0	0	0	
009	7/18/17 7:44 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.12	0.12	0.12	0	10	
009	7/18/17 7:44 AM	B	CHARLES RIVER	MID-BASIN	7.5	0.12	0.12	0.12	10	10	
009	8/19/17 8:30 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.01	0.25	0.25	0	52	
009	8/20/17 7:18 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.01	0.25	10	161	
009	8/21/17 8:16 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.01	20	0	
009	8/22/17 8:00 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	199	
009	8/22/17 8:00 AM	B	CHARLES RIVER	MID-BASIN	8.2	0	0	0	0	31	
009	8/23/17 7:35 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.04	0.04	0.04	10	31	
009	8/23/17 7:35 AM	B	CHARLES RIVER	MID-BASIN	8.5	0.04	0.04	0.04	0	10	
009	8/24/17 7:53 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.04	0.04	0	63	

2017 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
009	8/24/17 7:53 AM	B	CHARLES RIVER	MID-BASIN	8.8	0	0.04	0.04	0	0	
009	8/25/17 7:56 AM	B	CHARLES RIVER	MID-BASIN	6.7	0	0	0.04	0	63	
009	8/25/17 7:56 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.04	0	72	
009	8/28/17 7:43 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	10	404	
009	8/28/17 7:43 AM	B	CHARLES RIVER	MID-BASIN	8.4	0	0	0	20	20	
009	9/1/17 7:51 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.07	10	85	
009	9/1/17 7:51 AM	B	CHARLES RIVER	MID-BASIN	6.6	0	0	0.07	0	20	
009	9/6/17 7:45 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.22	0.22	0.22	10	63	
009	9/6/17 7:45 AM	B	CHARLES RIVER	MID-BASIN	8.3	0.22	0.22	0.22	0	0	
009	9/18/17 7:46 AM	B	CHARLES RIVER	MID-BASIN	8.4	0	0	0	0	10	
009	9/18/17 7:46 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	10	148	
009	9/19/17 7:32 AM	B	CHARLES RIVER	MID-BASIN	7.9	0.04	0.04	0.04	0	20	
009	9/19/17 7:32 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.04	0.04	0.04	10	20	
009	9/20/17 7:05 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.27	0.31	0.31	0	52	
009	9/21/17 7:35 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.27	0.31	41	250	
009	9/22/17 7:15 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.16	0.16	0.43	31	110	
009	10/24/17 7:55 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.07	0.07	0.07	0	10	
009	10/24/17 7:55 AM	B	CHARLES RIVER	MID-BASIN	8.7	0.07	0.07	0.07	0	0	
009	10/25/17 7:38 AM	S	CHARLES RIVER	MID-BASIN	0.1	1.29	1.36	1.36	41	84	
009	10/25/17 7:38 AM	B	CHARLES RIVER	MID-BASIN	8	1.29	1.36	1.36	0	20	
009	10/26/17 7:46 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.35	1.64	1.71	246	393	
009	10/26/17 7:46 AM	B	CHARLES RIVER	MID-BASIN	8.6	0.35	1.64	1.71	0	41	
009	10/27/17 8:12 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.35	1.64	156	563	
009	10/27/17 8:12 AM	B	CHARLES RIVER	MID-BASIN	7.9	0	0.35	1.64	0	110	
009	10/28/17 6:53 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.35	74	272	
009	10/29/17 7:08 AM	S	CHARLES RIVER	MID-BASIN	0.1	1	1	1	10	98	
009	10/30/17 7:53 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.94	1.94	1.94	7270	4610	
009	10/31/17 8:14 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.94	1.94	3610	3260	
009	10/31/17 8:14 AM	B	CHARLES RIVER	MID-BASIN	8.6	0	0.94	1.94	30	393	
009	11/1/17 7:44 AM	B	CHARLES RIVER	MID-BASIN	8.3	0	0	0.94	10	313	
009	11/1/17 7:44 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.94	1120	1620	
009	11/2/17 7:42 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	295	683	
009	11/2/17 7:42 AM	B	CHARLES RIVER	MID-BASIN	7.9	0	0	0	0	74	
009	11/3/17 7:26 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.01	0.01	0.01	52	175	
009	11/3/17 7:26 AM	B	CHARLES RIVER	MID-BASIN	8.3	0.01	0.01	0.01	10	84	
009	11/4/17 7:05 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.01	0.01	20	173	
010	3/23/17 8:20 AM	B	CHARLES RIVER	MID-BASIN	8.1	0	0	0	0	20	
010	3/23/17 8:20 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	10	41	
010	3/27/17 7:25 AM	B	CHARLES RIVER	MID-BASIN	8.7	0.48	0.48	0.56	10	20	
010	3/27/17 7:25 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.48	0.48	0.56	0	10	
010	3/28/17 7:17 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.72	1.2	1.2	0	10	
010	3/28/17 7:17 AM	B	CHARLES RIVER	MID-BASIN	7.7	0.72	1.2	1.2	0	0	
010	3/29/17 7:39 AM	B	CHARLES RIVER	MID-BASIN	8.3	0.06	0.78	1.26	10	51	
010	3/29/17 7:39 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.06	0.78	1.26	10	160	
010	3/30/17 7:01 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	0.78	31	203	

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Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
010	3/30/17 7:01 AM	B	CHARLES RIVER	MID-BASIN	7.9	0	0.06	0.78	0	41	
010	3/31/17 6:56 AM	B	CHARLES RIVER	MID-BASIN	8.1	0.87	0.87	0.93	0	52	
010	3/31/17 6:56 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.87	0.87	0.93	31	160	
010	5/1/17 7:23 AM	B	CHARLES RIVER	MID-BASIN	8.7	0	0.01	0.01	0	0	
010	5/1/17 7:23 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.01	0.01	20	20	
010	5/3/17 7:11 AM	B	CHARLES RIVER	MID-BASIN	8.3	0	0.19	0.19	0	31	
010	5/3/17 7:11 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.19	0.19	10	52	
010	6/7/17 8:24 AM	B	CHARLES RIVER	MID-BASIN	7.9	0.04	0.84	1.43	189	189	
010	6/7/17 8:24 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.04	0.84	1.43	332	379	
010	6/8/17 7:10 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.04	0.84	73	314	
010	6/8/17 7:10 AM	B	CHARLES RIVER	MID-BASIN	8.6	0	0.04	0.84	0	20	
010	6/13/17 7:27 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.53	0.53	0.53	0	20	
010	6/13/17 7:27 AM	B	CHARLES RIVER	MID-BASIN	8.9	0.53	0.53	0.53	0	0	
010	6/14/17 7:32 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.53	0.53	10	20	
010	6/14/17 7:32 AM	B	CHARLES RIVER	MID-BASIN	6.4	0	0.53	0.53	10	61	
010	6/15/17 7:15 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.53	0	41	
010	6/15/17 7:15 AM	B	CHARLES RIVER	MID-BASIN	8.4	0	0	0.53	10	10	
010	6/16/17 7:11 AM	B	CHARLES RIVER	MID-BASIN	8.5	2.13	2.13	2.13	0	0	
010	6/16/17 7:11 AM	S	CHARLES RIVER	MID-BASIN	0.1	2.13	2.13	2.13	0	20	
010	7/13/17 7:30 AM	B	CHARLES RIVER	MID-BASIN	8.7	0.14	1.47	1.64	0	20	
010	7/13/17 7:30 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.14	1.47	1.64	10	41	
010	7/14/17 7:41 AM	B	CHARLES RIVER	MID-BASIN	7.8	0	0.14	1.47	0	0	
010	7/14/17 7:41 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.14	1.47	20	41	
010	7/17/17 7:34 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	10	
010	7/17/17 7:34 AM	B	CHARLES RIVER	MID-BASIN	8.7	0	0	0	10	0	
010	7/18/17 7:37 AM	B	CHARLES RIVER	MID-BASIN	8.5	0.12	0.12	0.12	0	10	
010	7/18/17 7:37 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.12	0.12	0.12	0	10	
010	8/22/17 7:50 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	31	
010	8/22/17 7:50 AM	B	CHARLES RIVER	MID-BASIN	5.7	0	0	0	52	52	
010	8/23/17 7:26 AM	B	CHARLES RIVER	MID-BASIN	8.1	0.04	0.04	0.04	63	0	
010	8/23/17 7:26 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.04	0.04	0.04	30	148	
010	8/24/17 7:40 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.04	0.04	0	41	
010	8/24/17 7:40 AM	B	CHARLES RIVER	MID-BASIN	8.2	0	0.04	0.04	10	0	
010	8/25/17 7:49 AM	B	CHARLES RIVER	MID-BASIN	7.5	0	0	0.04	41	10	
010	8/25/17 7:49 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.04	0	41	
010	8/28/17 7:31 AM	B	CHARLES RIVER	MID-BASIN	8.3	0	0	0	0	0	
010	8/28/17 7:31 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	0	30	
010	9/1/17 7:44 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.07	0	10	
010	9/1/17 7:44 AM	B	CHARLES RIVER	MID-BASIN	8.5	0	0	0.07	0	10	
010	9/6/17 7:34 AM	B	CHARLES RIVER	MID-BASIN	8.6	0.22	0.22	0.22	31	31	
010	9/6/17 7:34 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.22	0.22	0.22	0	52	
010	9/18/17 7:37 AM	B	CHARLES RIVER	MID-BASIN	8.4	0	0	0	30	20	
010	9/18/17 7:37 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	10	243	
010	9/19/17 7:24 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.04	0.04	0.04	0	30	
010	9/19/17 7:24 AM	B	CHARLES RIVER	MID-BASIN	8.4	0.04	0.04	0.04	0	0	

2017 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
010	10/24/17 7:49 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.07	0.07	0.07	0	10	
010	10/24/17 7:49 AM	B	CHARLES RIVER	MID-BASIN	8.6	0.07	0.07	0.07	0	20	
010	10/25/17 7:31 AM	B	CHARLES RIVER	MID-BASIN	8.6	1.29	1.36	1.36	0	41	
010	10/25/17 7:31 AM	S	CHARLES RIVER	MID-BASIN	0.1	1.29	1.36	1.36	10	62	
010	10/26/17 7:38 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.35	1.64	1.71	373	816	
010	10/26/17 7:38 AM	B	CHARLES RIVER	MID-BASIN	8.9	0.35	1.64	1.71	0	85	
010	10/27/17 8:01 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.35	1.64	110	556	
010	10/27/17 8:01 AM	B	CHARLES RIVER	MID-BASIN	8.5	0	0.35	1.64	40	120	
010	10/31/17 8:08 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.94	1.94	1790	4350	
010	10/31/17 8:08 AM	B	CHARLES RIVER	MID-BASIN	8.6	0	0.94	1.94	1440	2310	
010	11/1/17 7:37 AM	B	CHARLES RIVER	MID-BASIN	8.5	0	0	0.94	121	291	
010	11/1/17 7:37 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.94	1300	1420	
010	11/2/17 7:35 AM	B	CHARLES RIVER	MID-BASIN	7.7	0	0	0	20	132	
010	11/2/17 7:35 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	305	644	
010	11/3/17 7:19 AM	B	CHARLES RIVER	MID-BASIN	8.4	0.01	0.01	0.01	10	161	
010	11/3/17 7:19 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.01	0.01	0.01	52	175	
166	1/3/17 9:51 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.89	0.89	0.96	10	275	
166	1/18/17 10:31 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.36	0.66	0.66	0	228	
166	1/30/17 9:56 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	10	219.5	
166	2/28/17 9:41 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	0	86	
166	3/13/17 8:41 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.02	0	97	
166	3/29/17 9:26 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.06	0.78	1.26	20	134	
166	4/14/17 8:22 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.02	0	52	
166	4/25/17 9:04 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.89	0.89	0.89	10	0	
166	5/11/17 9:20 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	0	41	
166	5/22/17 8:57 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.12	0.12	0.12	0	63	
166	6/5/17 8:34 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.59	0.77	0.77	0	52	
166	6/19/17 8:57 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.03	0.03	0.05	10	185	
166	7/7/17 8:14 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.3	0.3	0.3	0	5	
166	7/21/17 9:17 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	0	0	
166	8/1/17 8:55 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	0	10	
166	8/14/17 8:38 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.1	0	51	
166	8/30/17 9:13 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.07	0.07	0.07	10	31	
166	9/12/17 9:14 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	10	41	
166	9/26/17 9:03 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	0	20	
166	10/13/17 9:27 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.01	5	30.5	
166	10/24/17 9:11 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.07	0.07	0.07	20	63	
166	11/6/17 10:09 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.08	0.08	0.08	10	109	
166	11/20/17 10:09 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.23	0.32	31	134	
166	12/4/17 10:24 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	0	63	
166	12/20/17 10:10 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	10	712	
011	3/23/17 8:11 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	0	10	
011	3/23/17 8:11 AM	B	CHARLES RIVER	LOWER BASIN	5.9	0	0	0	0	20	
011	3/27/17 7:15 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.48	0.48	0.56	10	0	
011	3/27/17 7:15 AM	B	CHARLES RIVER	LOWER BASIN	5.6	0.48	0.48	0.56	0	31	

2017 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
011	3/28/17 7:08 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.72	1.2	1.2	0	10	10
011	3/28/17 7:08 AM	B	CHARLES RIVER	LOWER BASIN	5.7	0.72	1.2	1.2	10	10	10
011	3/29/17 7:28 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.06	0.78	1.26	86	189	189
011	3/29/17 7:28 AM	B	CHARLES RIVER	LOWER BASIN	5.1	0.06	0.78	1.26	31	86	86
011	3/30/17 6:52 AM	B	CHARLES RIVER	LOWER BASIN	4.4	0	0.06	0.78	52	160	160
011	3/30/17 6:52 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.06	0.78	10	160	160
011	3/31/17 6:45 AM	B	CHARLES RIVER	LOWER BASIN	5.3	0.87	0.87	0.93	31	187	187
011	3/31/17 6:45 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.87	0.87	0.93	10	160	160
011	4/26/17 7:44 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.56	1.45	1.45	0	74	74
011	4/27/17 7:12 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.56	1.45	20	74	74
011	4/28/17 7:39 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.01	0.01	0.57	62	121	121
011	4/29/17 7:05 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.01	0.01	10	52	52
011	4/30/17 7:00 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.01	0.01	0.02	0	0	0
011	5/1/17 7:12 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.01	0.01	0	0	0
011	5/1/17 7:12 AM	B	CHARLES RIVER	LOWER BASIN	5.8	0	0.01	0.01	10	0	0
011	5/3/17 7:01 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.19	0.19	0	31	31
011	5/3/17 7:01 AM	B	CHARLES RIVER	LOWER BASIN	4.6	0	0.19	0.19	10	10	10
011	5/5/17 7:27 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.64	0.64	0.64	10	31	31
011	5/26/17 7:41 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.55	1.18	1.18	20	31	31
011	5/27/17 7:02 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.55	1.18	10	52	52
011	5/28/17 6:34 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.55	20	158	158
011	5/29/17 6:35 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.05	0.05	0.05	0	63	63
011	5/30/17 7:12 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.05	0.05	20	63	63
011	6/6/17 6:59 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.8	1.39	1.57	218	388	388
011	6/7/17 8:15 AM	B	CHARLES RIVER	LOWER BASIN	5.6	0.04	0.84	1.43	63	213	213
011	6/7/17 8:15 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.04	0.84	1.43	169	216	216
011	6/8/17 7:00 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.04	0.84	86	292	292
011	6/8/17 7:00 AM	B	CHARLES RIVER	LOWER BASIN	5.8	0	0.04	0.84	199	288	288
011	6/9/17 7:07 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.04	73	63	63
011	6/13/17 7:16 AM	B	CHARLES RIVER	LOWER BASIN	5.8	0.53	0.53	0.53	10	74	74
011	6/13/17 7:16 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.53	0.53	0.53	0	20	20
011	6/14/17 7:22 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.53	0.53	0	10	10
011	6/14/17 7:22 AM	B	CHARLES RIVER	LOWER BASIN	5.3	0	0.53	0.53	20	10	10
011	6/15/17 7:05 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.53	10	63	63
011	6/15/17 7:05 AM	B	CHARLES RIVER	LOWER BASIN	5.9	0	0	0.53	10	20	20
011	6/16/17 6:59 AM	S	CHARLES RIVER	LOWER BASIN	0.1	2.13	2.13	2.13	10	20	20
011	6/16/17 6:59 AM	B	CHARLES RIVER	LOWER BASIN	6.4	2.13	2.13	2.13	10	20	20
011	7/13/17 7:21 AM	B	CHARLES RIVER	LOWER BASIN	5.9	0.14	1.47	1.64	85	86	86
011	7/13/17 7:21 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.14	1.47	1.64	52	63	63
011	7/14/17 7:31 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.14	1.47	20	63	63
011	7/14/17 7:31 AM	B	CHARLES RIVER	LOWER BASIN	6.7	0	0.14	1.47	85	74	74
011	7/15/17 6:22 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.14	0	74	74
011	7/16/17 6:22 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	10	41	41
011	7/17/17 7:18 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	10	0	0
011	7/17/17 7:18 AM	B	CHARLES RIVER	LOWER BASIN	6.2	0	0	0	20	110	110

2017 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
011	7/18/17 7:13 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.12	0.12	0.12	0	0	
011	7/18/17 7:13 AM	B	CHARLES RIVER	LOWER BASIN	5.4	0.12	0.12	0.12	0	74	
011	8/19/17 8:18 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.01	0.25	0.25	0	30	
011	8/20/17 7:08 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.01	0.25	10	52	
011	8/21/17 8:05 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.01	10	0	
011	8/22/17 7:36 AM	B	CHARLES RIVER	LOWER BASIN	6.4	0	0	0	108	10	
011	8/22/17 7:36 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	20	20	
011	8/23/17 7:14 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.04	0.04	0.04	20	31	
011	8/23/17 7:14 AM	B	CHARLES RIVER	LOWER BASIN	6.2	0.04	0.04	0.04	63	0	
011	8/24/17 7:30 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.04	0.04	20	30	
011	8/24/17 7:30 AM	B	CHARLES RIVER	LOWER BASIN	6	0	0.04	0.04	41	31	
011	8/25/17 7:35 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.04	41	20	
011	8/25/17 7:35 AM	B	CHARLES RIVER	LOWER BASIN	6.1	0	0	0.04	85	84	
011	8/28/17 7:19 AM	B	CHARLES RIVER	LOWER BASIN	5.6	0	0	0	41	0	
011	8/28/17 7:19 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	0	0	
011	9/1/17 7:35 AM	B	CHARLES RIVER	LOWER BASIN	6	0	0	0.07	74	63	
011	9/1/17 7:35 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.07	10	10	
011	9/6/17 7:24 AM	B	CHARLES RIVER	LOWER BASIN	6.5	0.22	0.22	0.22	31	10	
011	9/6/17 7:24 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.22	0.22	0.22	10	52	
011	9/18/17 7:26 AM	B	CHARLES RIVER	LOWER BASIN	6.2	0	0	0	10	20	
011	9/18/17 7:26 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	0	20	
011	9/19/17 7:13 AM	B	CHARLES RIVER	LOWER BASIN	5.5	0.04	0.04	0.04	20	20	
011	9/19/17 7:13 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.04	0.04	0.04	10	97	
011	9/20/17 6:52 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.27	0.31	0.31	20	379	
011	9/21/17 7:23 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.27	0.31	98	314	
011	9/22/17 7:03 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.16	0.16	0.43	233	134	
011	10/24/17 7:40 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.07	0.07	0.07	0	0	
011	10/24/17 7:40 AM	B	CHARLES RIVER	LOWER BASIN	5.8	0.07	0.07	0.07	20	63	
011	10/25/17 7:23 AM	B	CHARLES RIVER	LOWER BASIN	5.9	1.29	1.36	1.36	85	109	
011	10/25/17 7:23 AM	S	CHARLES RIVER	LOWER BASIN	0.1	1.29	1.36	1.36	1210	1350	
011	10/26/17 7:29 AM	B	CHARLES RIVER	LOWER BASIN	5.7	0.35	1.64	1.71	199	148	
011	10/26/17 7:29 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.35	1.64	1.71	529	1220	
011	10/27/17 7:52 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.35	1.64	30	160	
011	10/27/17 7:52 AM	B	CHARLES RIVER	LOWER BASIN	5.6	0	0.35	1.64	41	168	
011	10/28/17 6:38 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.35	20	122	
011	10/29/17 6:58 AM	S	CHARLES RIVER	LOWER BASIN	0.1	1	1	1	0	86	
011	10/30/17 7:39 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.94	1.94	1.94	413	738	
011	10/31/17 8:00 AM	B	CHARLES RIVER	LOWER BASIN	5.7	0	0.94	1.94	2050	2490	
011	10/31/17 8:00 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.94	1.94	1350	2360	
011	11/1/17 7:29 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.94	733	1210	
011	11/1/17 7:29 AM	B	CHARLES RIVER	LOWER BASIN	5.1	0	0	0.94	878	1470	
011	11/2/17 7:25 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	145	464	
011	11/2/17 7:25 AM	B	CHARLES RIVER	LOWER BASIN	6.1	0	0	0	354	631	
011	11/3/17 7:09 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.01	0.01	0.01	20	161	
011	11/3/17 7:09 AM	B	CHARLES RIVER	LOWER BASIN	5.9	0.01	0.01	0.01	63	195	

2017 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
011	11/4/17 6:55 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.01	0.01	52	148	
174	4/3/17 9:57 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	1.56	41	171	
174	4/4/17 8:26 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.68	0.68	0.68	41	161	
174	4/5/17 8:06 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.68	0.68	85	335	
174	4/6/17 10:10 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	1.36	1.36	2.04	0	63	
174	4/7/17 7:15 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	1.36	1.36	336	6490	
174	4/8/17 8:45 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	1.36	86	416	
174	4/9/17 8:15 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	0	155	
174	4/10/17 9:35 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	10	121	
174	4/11/17 8:13 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	20	288	
174	4/12/17 8:45 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.02	0.02	0.02	20	135	
174	5/6/17 7:50 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.1	0.74	0.74	888	2990	
174	5/7/17 8:00 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.1	0.74	130	332	
174	5/8/17 7:55 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.1	30	110	
174	5/9/17 8:25 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	10	145	
174	5/10/17 9:15 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	20	309	
174	5/15/17 8:15 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.07	1.02	1.04	479	910	
174	5/16/17 8:15 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.07	1.02	187	480	
174	5/17/17 7:51 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.07	160	441	
174	5/18/17 9:30 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.05	0.05	0.05	85	345	
174	5/19/17 8:30 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	0.06	0.06	275	1200	
174	6/20/17 8:30 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.13	0.16	0.16	627	836	
174	6/21/17 8:00 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.13	0.16	345	1010	
174	6/22/17 8:00 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.13	328	1020	
174	6/23/17 8:09 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	148	247	
174	6/27/17 8:00 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.08	0.08	0.08	74	556	
174	6/28/17 7:50 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.08	0.08	3450	6130	
174	6/29/17 8:10 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.08	431	1940	
174	6/30/17 9:37 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.07	0.07	0.07	327	759	
174	7/1/17 9:28 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.11	0.18	0.18	689	1720	
174	7/2/17 8:25 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.11	0.18	41	327	
174	7/3/17 8:35 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.11	132	487	
174	7/4/17 9:15 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	52	481	
174	7/24/17 8:45 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	1.41	1.41	1.41	959	1130	
174	7/25/17 8:20 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	1.42	1.42	2760	4110	
174	7/26/17 7:50 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.01	1.42	650	1180	
174	7/27/17 7:55 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.04	0.04	0.05	243	839	
174	7/28/17 8:00 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.04	0.04	143	933	
174	7/29/17 8:00 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.04	74	738	
174	9/7/17 8:28 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.6	0.82	0.82	9800	11200	
174	9/8/17 8:35 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.6	0.82	839	1610	
174	9/9/17 7:08 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	0.01	0.61	638	683	
174	9/10/17 8:18 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.01	0.01	185	547	
174	9/11/17 8:45 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.01	146	479	
174	9/14/17 8:16 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.33	0.36	0.36	148	457	

2017 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
174	10/16/17 8:30 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.1	301	389	
174	10/17/17 9:11 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	156	228	
174	10/18/17 8:30 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	63	131	
174	10/19/17 8:12 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	41	216	
174	10/20/17 8:55 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	41	52	
174	11/14/17 9:20 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.13	0.13	158	985	
174	11/17/17 9:55 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.19	0.19	158	345	
174	11/27/17 11:08 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	98	238	
174	11/28/17 11:30 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	52	231	
174	11/29/17 10:38 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	10	10	
174	11/30/17 9:50 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	52	158	
174	12/11/17 9:50 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.03	0.69	74	341	
174	12/13/17 9:50 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.04	0.04	74	487	
074	4/3/17 10:04 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	1.56	41	960	
074	4/4/17 8:33 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.68	0.68	0.68	233	1120	
074	4/5/17 8:12 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.68	0.68	106	379	
074	4/6/17 10:18 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	1.36	1.36	2.04	20	240	
074	4/7/17 7:27 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	1.36	1.36	285	3650	
074	4/8/17 8:57 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	1.36	30	441	
074	4/9/17 8:20 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	0	201	
074	4/10/17 9:45 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	10	253	
074	4/11/17 8:23 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	20	183	
074	4/12/17 8:54 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.02	0.02	0.02	0	84	
074	5/6/17 7:54 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.1	0.74	0.74	1310	1530	
074	5/7/17 8:06 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.1	0.74	135	404	
074	5/8/17 8:09 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.1	0	98	
074	5/9/17 8:31 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	0	98	
074	5/10/17 9:31 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	10	121	
074	5/15/17 8:24 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.07	1.02	1.04	520	1240	
074	5/16/17 8:22 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.07	1.02	109	384	
074	5/17/17 7:59 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.07	31	216	
074	5/18/17 9:35 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.05	0.05	0.05	0	336	
074	5/19/17 8:43 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	0.06	0.06	197	1520	
074	6/20/17 8:37 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.13	0.16	0.16	350	744	
074	6/21/17 8:11 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.13	0.16	86	327	
074	6/22/17 8:07 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.13	158	350	
074	6/23/17 8:14 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	256	281	
074	6/27/17 8:10 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.08	0.08	0.08	156	581	
074	6/28/17 8:01 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.08	0.08	1990	5480	
074	6/29/17 8:19 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.08	185	776	
074	6/30/17 9:45 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.07	0.07	0.07	227	384	
074	7/1/17 9:34 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.11	0.18	0.18	52	537	
074	7/2/17 8:30 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.11	0.18	163	428	
074	7/3/17 8:47 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.11	512	638	
074	7/4/17 9:20 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	41	695	



2017 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
074	7/24/17 8:53 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	1.41	1.41	1.41	733	2010	
074	7/25/17 8:31 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	1.42	1.42	1860	2720	
074	7/26/17 8:00 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.01	1.42	278	862	
074	7/27/17 8:09 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.04	0.04	0.05	86	529	
074	7/28/17 8:12 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.04	0.04	41	399	
074	7/29/17 8:05 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.04	85	857	
074	9/7/17 8:33 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.6	0.82	0.82	9210	24200	
074	9/8/17 8:46 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.6	0.82	472	1220	
074	9/9/17 7:12 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	0.01	0.61	197	428	
074	9/10/17 8:28 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.01	0.01	109	465	
074	9/11/17 8:57 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.01	52	359	
074	9/14/17 8:30 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.33	0.36	0.36	148	331	
074	10/16/17 8:41 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.1	419	1120	
074	10/17/17 9:20 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	74	910	
074	10/18/17 8:48 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	73	422	
074	10/19/17 8:17 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	63	228	
074	10/20/17 9:03 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	63	472	
074	11/14/17 9:30 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.13	0.13	161	689	
074	11/17/17 10:01 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.19	0.19	93	211	
074	11/27/17 11:29 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	121	379	
074	11/28/17 11:37 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	20	160	
074	11/29/17 10:46 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	52	134	
074	11/30/17 9:55 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	41	228	
074	12/11/17 9:56 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.03	0.69	108	5480	
074	12/13/17 9:57 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.04	0.04	135	10500	
277	10/16/17 8:22 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.1	158	489	
277	10/17/17 8:32 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	199	1550	
277	10/18/17 8:21 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	171	262	
277	10/19/17 7:55 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	196	336	
277	10/20/17 8:41 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	121	504	
277	11/14/17 8:56 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.13	0.13	292	886	
277	11/17/17 9:21 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.19	0.19	185	350	
277	11/27/17 10:55 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	288	359	
277	11/28/17 10:59 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	301	295	
277	11/29/17 10:14 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	145	185	
277	11/30/17 9:25 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	63	223	
277	12/11/17 9:37 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.03	0.69	620	24200	
277	12/13/17 9:36 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.04	0.04	1140		
172	4/3/17 9:44 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	1.56	63	1650	
172	4/4/17 8:07 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.68	0.68	0.68	109	637	
172	4/5/17 7:51 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.68	0.68	201	1120	
172	4/6/17 9:58 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	1.36	1.36	2.04	86	253	
172	4/7/17 7:03 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	1.36	1.36	573	5170	
172	4/8/17 8:37 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	1.36	98	384	
172	4/9/17 8:05 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	0	211	

2017 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
172	4/10/17 9:28 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	0	201	
172	4/11/17 7:57 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	63	369	
172	4/12/17 8:31 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.02	0.02	0.02	0	663	
172	5/6/17 7:42 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.1	0.74	0.74	708	1670	
172	5/7/17 7:53 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.1	0.74	146	771	
172	5/8/17 7:38 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.1	31	109	
172	5/9/17 8:10 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	52	146	
172	5/10/17 9:02 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	20	189	
172	5/15/17 8:04 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.07	1.02	1.04	905	1060	
172	5/16/17 7:56 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.07	1.02	345	620	
172	5/17/17 7:38 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.07	121	299	
172	5/18/17 9:15 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.05	0.05	0.05	31	488	
172	5/19/17 8:17 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	0.06	0.06	529	1380	
172	6/20/17 8:14 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.13	0.16	0.16	576	801	
172	6/21/17 7:44 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.13	0.16	301	369	
172	6/22/17 7:41 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.13	256	240	
172	6/23/17 7:47 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	130	345	
172	6/27/17 7:47 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.08	0.08	0.08	63	195	
172	6/28/17 7:28 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.08	0.08	2480	2010	
172	6/29/17 7:52 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.08	160	253	
172	6/30/17 9:18 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.07	0.07	0.07	96	175	
172	7/1/17 9:15 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.11	0.18	0.18	41	481	
172	7/2/17 8:05 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.11	0.18	51	223	
172	7/3/17 8:26 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.11	109	41	
172	7/4/17 9:03 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	20	318	
172	7/24/17 8:29 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	1.41	1.41	1.41	598	594	
172	7/25/17 8:05 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	1.42	1.42	1540	1900	
172	7/26/17 7:42 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.01	1.42	253	823	
172	7/27/17 7:42 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.04	0.04	0.05	195	546	
172	7/28/17 7:46 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.04	0.04	145	472	
172	7/29/17 7:50 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.04	173	488	
172	9/7/17 8:07 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.6	0.82	0.82	5170	24200	
172	9/8/17 8:20 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.6	0.82	601	1670	
172	9/9/17 6:55 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	0.01	0.61	488	520	
172	9/10/17 8:08 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.01	0.01	183	399	
172	9/11/17 7:54 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.01	573	2260	
172	9/14/17 8:02 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.33	0.36	0.36	860	933	
172	10/16/17 8:18 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.1	199	419	
172	10/17/17 8:39 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	148	1400	
172	10/18/17 8:16 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	86	317	
172	10/19/17 7:40 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	301	350	
172	10/20/17 8:36 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	122	341	
172	11/14/17 9:00 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.13	0.13	419	1480	
172	11/17/17 9:24 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.19	0.19	373	422	
172	11/27/17 10:59 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	259	537	

2017 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
172	11/28/17 11:05 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	528	199	
172	11/29/17 10:21 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	161	161	
172	11/30/17 9:32 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	84	173	
172	12/11/17 9:40 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.03	0.69	457	15500	
172	12/13/17 9:39 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.04	0.04	934		
276	10/16/17 8:11 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.1	161	272	
276	10/17/17 8:48 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	228	1400	
276	10/18/17 8:10 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	63	341	
276	10/19/17 7:46 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	185	388	
276	10/20/17 8:29 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	173	311	
276	11/14/17 9:06 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.13	0.13	301	1220	
276	11/17/17 9:33 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.19	0.19	379	537	
276	11/27/17 11:05 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	259	413	
276	11/28/17 11:12 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	148	291	
276	11/29/17 10:25 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	109	282	
276	11/30/17 9:21 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	98	171	
276	12/11/17 9:23 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.03	0.69	556	24200	
276	12/13/17 9:27 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.04	0.04	752		
070	4/3/17 9:34 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	1.56	63	1540	
070	4/4/17 7:44 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.68	0.68	0.68	443	932	
070	4/5/17 7:34 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.68	0.68	158	2220	
070	4/6/17 9:45 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	1.36	1.36	2.04	52	408	
070	4/7/17 6:47 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	1.36	1.36	331	4610	
070	4/8/17 8:27 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	1.36	86	345	
070	4/9/17 7:55 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	20	201	
070	4/10/17 9:18 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	41	345	
070	4/11/17 7:38 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	30	317	
070	4/12/17 7:44 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.02	0.02	0.02	0	275	
070	5/6/17 7:35 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.1	0.74	0.74	862	1050	
070	5/7/17 7:46 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.1	0.74	109	512	
070	5/8/17 7:21 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.1	10	171	
070	5/9/17 7:50 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	74	259	
070	5/10/17 8:52 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	41	41	
070	5/15/17 7:46 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.07	1.02	1.04	907	959	
070	5/16/17 7:35 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.07	1.02	272	594	
070	5/17/17 7:19 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.07	281	265	
070	5/18/17 8:52 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.05	0.05	0.05	110	538	
070	5/19/17 8:01 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	0.06	0.06	839	6130	
070	6/20/17 7:35 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.13	0.16	0.16	3080	3870	
070	6/21/17 7:23 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.13	0.16	323	350	
070	6/22/17 7:18 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.13	246	601	
070	6/23/17 7:31 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	246	235	
070	6/27/17 7:29 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.08	0.08	0.08	160	441	
070	6/28/17 7:08 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.08	0.08	1780	3450	
070	6/29/17 7:32 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.08	571	538	

2017 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
070	6/30/17 9:02 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.07	0.07	0.07	272	546	
070	7/1/17 9:06 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.11	0.18	0.18	305	1020	
070	7/2/17 7:55 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.11	0.18	341	738	
070	7/3/17 8:16 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.11	557	1050	
070	7/4/17 8:56 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	435	464	
070	7/24/17 7:56 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	1.41	1.41	1.41	455	240	
070	7/25/17 7:44 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	1.42	1.42	2100	1720	
070	7/26/17 7:23 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.01	1.42	571	813	
070	7/27/17 7:29 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.04	0.04	0.05	218	723	
070	7/28/17 7:27 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.04	0.04	223	703	
070	7/29/17 7:40 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.04	285	820	
070	9/7/17 7:35 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.6	0.82	0.82	12000	13000	
070	9/8/17 7:58 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.6	0.82	670	1240	
070	9/9/17 6:46 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	0.01	0.61	313	631	
070	9/10/17 7:58 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.01	0.01	369	594	
070	9/11/17 7:34 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.01	332	305	
070	9/14/17 7:48 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.33	0.36	0.36	171	173	
070	10/16/17 7:54 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.1	452	345	
070	10/17/17 8:06 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	1250	354	
070	10/18/17 7:51 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	1210	813	
070	10/19/17 7:21 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	728	480	
070	10/20/17 8:08 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	546	419	
070	11/14/17 8:39 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.13	0.13	3780	4880	
070	11/17/17 9:02 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.19	0.19	934	933	
070	11/27/17 10:37 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	51	213	
070	11/28/17 10:45 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	120	228	
070	11/29/17 10:04 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	249	161	
070	11/30/17 9:10 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	201	265	
070	12/11/17 9:08 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.03	0.69	256	1420	
070	12/13/17 9:10 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.04	0.04	910		
083	1/3/17 9:15 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.89	0.89	0.96	0	63	
083	1/18/17 9:52 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.36	0.66	0.66	0	95	
083	1/30/17 9:22 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	0	10	
083	2/28/17 9:01 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	0	0	
083	3/13/17 8:04 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.02	0	20	
083	3/29/17 8:52 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.06	0.78	1.26	58	173.5	
083	4/3/17 9:18 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	1.56	10	74	
083	4/4/17 7:27 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.68	0.68	0.68	41	41	
083	4/5/17 7:20 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.68	0.68	52	110	
083	4/6/17 9:29 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	1.36	1.36	2.04	31	96	
083	4/7/17 6:32 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	1.36	1.36	110	862	
083	4/8/17 8:10 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	1.36	31	63	
083	4/9/17 7:40 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	30	134	
083	4/10/17 9:06 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	0	74	
083	4/11/17 7:23 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	20	52	

2017 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
083	4/12/17 7:21 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.02	0.02	0.02	0	41	
083	4/14/17 7:47 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.02	10	30	
083	4/25/17 8:07 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.89	0.89	0.89	30	31	
083	5/6/17 7:28 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.1	0.74	0.74	122	185	
083	5/7/17 7:36 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.1	0.74	52	141	
083	5/8/17 7:03 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.1	31	31	
083	5/9/17 7:24 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	20	52	
083	5/10/17 8:38 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	0	249	
083	5/11/17 8:32 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	5	26	
083	5/15/17 7:32 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.07	1.02	1.04	278	211	
083	5/16/17 10:01 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.07	1.02	31	108	
083	5/17/17 9:49 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.07	20	41	
083	5/18/17 8:45 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.05	0.05	0.05	907	1550	
083	5/19/17 7:43 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.01	0.06	0.06	52	142	
083	5/22/17 8:13 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.12	0.12	0.12	31	31	
083	6/5/17 7:51 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.59	0.77	0.77	374	601	
083	6/19/17 8:13 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.03	0.03	0.05	40.5	63	
083	6/20/17 7:14 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.13	0.16	0.16	565	359	
083	6/21/17 9:31 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.13	0.16	20	135	
083	6/22/17 9:34 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.13	0	30	
083	6/23/17 9:24 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	10	86	
083	6/27/17 9:25 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.08	0.08	0.08	10	10	
083	6/28/17 10:21 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.08	0.08	30	155	
083	6/29/17 9:23 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.08	31	41	
083	6/30/17 8:47 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.07	0.07	0.07	52	272	
083	7/1/17 8:55 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.11	0.18	0.18	199	218	
083	7/2/17 7:45 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.11	0.18	122	134	
083	7/3/17 7:57 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.11	62	74	
083	7/4/17 8:45 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	20	185	
083	7/7/17 7:41 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.3	0.3	0.3	20	86	
083	7/21/17 8:40 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	30	146	
083	7/24/17 8:05 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	1.41	1.41	1.41	0	41	
083	7/25/17 7:27 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.01	1.42	1.42	132	110	
083	7/26/17 9:25 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.01	1.42	98	86	
083	7/27/17 9:19 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.04	0.04	0.05	0	41	
083	7/28/17 9:45 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.04	0.04	10	52	
083	7/29/17 7:28 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.04	189	173	
083	8/1/17 8:10 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	74	131	
083	8/14/17 8:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.1	57	167	
083	8/30/17 8:33 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.07	0.07	0.07	97	108	
083	9/7/17 7:28 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.6	0.82	0.82	3260	2600	
083	9/8/17 7:40 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.6	0.82	166	504	
083	9/9/17 6:37 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.01	0.01	0.61	350	199	
083	9/10/17 7:42 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.01	0.01	677	1670	
083	9/11/17 7:15 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.01	121	132	

2017 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
083	9/12/17 8:31 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	109	155.5	
083	9/14/17 7:31 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.33	0.36	0.36	41	98	
083	9/26/17 8:23 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	231	231	
083	10/13/17 8:37 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.01	20	122	
083	10/16/17 7:37 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.1	134	121	
083	10/17/17 7:45 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	63	269	
083	10/18/17 7:29 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	109	201	
083	10/19/17 8:33 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	187	135	
083	10/24/17 8:36 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.07	0.07	0.07	226	233	
083	11/6/17 9:30 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.08	0.08	0.08	63	63	
083	11/20/17 9:31 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.23	0.32	52	62	
083	11/27/17 10:20 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	51	20	
083	11/28/17 10:30 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	52	52	
083	11/29/17 9:50 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	10	41	
083	12/4/17 9:44 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	10	98	
083	12/20/17 9:26 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	0	20	
057	4/3/17 9:25 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	1.56	0	84	
057	4/4/17 7:34 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.68	0.68	0.68	10	63	
057	4/5/17 7:26 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.68	0.68	31	63	
057	4/6/17 9:35 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	1.36	1.36	2.04	20	20	
057	4/7/17 6:37 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	1.36	1.36	52	738	
057	4/8/17 8:17 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	1.36	41	84	
057	4/9/17 7:45 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	31	96	
057	4/10/17 9:11 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	10	41	
057	4/11/17 7:32 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	0	10	
057	4/12/17 7:35 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.02	0.02	0.02	10	20	
057	5/6/17 7:31 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.1	0.74	0.74	143	199	
057	5/7/17 7:41 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.1	0.74	63	122	
057	5/8/17 7:11 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.1	10	62	
057	5/9/17 7:31 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	20	10	
057	5/10/17 8:45 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	10	74	
057	5/15/17 7:38 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.07	1.02	1.04	359	480	
057	5/16/17 9:55 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.07	1.02	0	52	
057	5/17/17 9:42 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.07	0	31	
057	5/18/17 8:59 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.05	0.05	0.05	173	98	
057	5/19/17 7:52 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.01	0.06	0.06	134	410	
057	6/20/17 7:22 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.13	0.16	0.16	41	256	
057	6/21/17 9:27 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.13	0.16	20	109	
057	6/22/17 9:28 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.13	20	74	
057	6/23/17 9:19 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	10	85	
057	6/27/17 9:19 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.08	0.08	0.08	20	74	
057	6/28/17 10:16 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.08	0.08	63	295	
057	6/29/17 9:18 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.08	10	30	
057	6/30/17 8:55 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.07	0.07	0.07	110	238	
057	7/1/17 9:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.11	0.18	0.18	275	521	

2017 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
057	7/2/17 7:50 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.11	0.18	74	146	
057	7/3/17 8:04 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.11	0	121	
057	7/4/17 8:49 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	30	199	
057	7/24/17 8:16 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	1.41	1.41	1.41	63	20	
057	7/25/17 7:35 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.01	1.42	1.42	122	148	
057	7/26/17 9:19 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.01	1.42	0	134	
057	7/27/17 9:12 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.04	0.04	0.05	10	98	
057	7/28/17 9:40 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.04	0.04	52	197	
057	7/29/17 7:32 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.04	52	173	
057	9/7/17 7:46 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.6	0.82	0.82	7700	5790	
057	9/8/17 7:48 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.6	0.82	3260	638	
057	9/9/17 6:39 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.01	0.01	0.61	19900	717	
057	9/10/17 7:48 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.01	0.01	1250	359	
057	9/11/17 7:22 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.01	120	108	
057	9/14/17 7:37 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.33	0.36	0.36	86	158	
057	10/16/17 7:44 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.1	51	122	
057	10/17/17 7:54 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	72	41	
057	10/18/17 7:39 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	51	74	
057	10/19/17 8:40 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	108	173	
057	11/27/17 10:28 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	31	86	
057	11/28/17 10:37 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	0	86	
057	11/29/17 9:56 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	52	74	
066	1/3/17 9:08 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.89	0.89	0.96	52	134	
066	1/18/17 9:41 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.36	0.66	0.66	110	122	
066	1/30/17 9:16 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	0	62	
066	2/14/17 9:18 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.09	0.86	10	63.5	
066	2/28/17 8:52 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	10	30.5	
066	3/13/17 7:56 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.02	10	121	
066	3/29/17 8:47 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.06	0.78	1.26	97	171	
066	4/14/17 7:37 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.02	0	46.5	
066	4/25/17 8:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.89	0.89	0.89	10	0	
066	5/11/17 8:21 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	41	10	
066	5/22/17 8:04 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.12	0.12	0.12	58.5	92	
066	6/5/17 7:44 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.59	0.77	0.77	364	617	
066	6/19/17 8:04 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.03	0.03	0.05	31	98	
066	7/7/17 7:33 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.3	0.3	0.3	52	195	
066	7/21/17 8:31 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	85	158	
066	8/1/17 8:01 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	52	63	
066	8/14/17 7:52 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.1	98	108	
066	8/30/17 8:24 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.07	0.07	0.07	41	83	
066	9/12/17 8:23 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	72	146	
066	9/26/17 8:14 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	98	146	
066	10/13/17 8:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.01	31	41	
066	10/24/17 8:26 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.07	0.07	0.07	114.5	177.5	
066	11/6/17 9:22 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.08	0.08	0.08	109	52	

2017 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
066	11/20/17 9:24 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.23	0.32	132	108	
066	12/4/17 9:36 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	63	85	
066	12/20/17 9:16 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	41	293.5	
056	4/3/17 8:52 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	1.56	10	187	
056	4/4/17 9:04 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.68	0.68	0.68	41	278	
056	4/5/17 9:10 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.68	0.68	52	554	
056	4/6/17 9:01 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	1.36	1.36	2.04	20	84	
056	4/7/17 7:59 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	1.36	1.36	74	1260	
056	4/8/17 7:55 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	1.36	0	109	
056	4/9/17 7:30 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	10	110	
056	4/10/17 8:47 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	0	52	
056	4/11/17 8:50 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	20	74	
056	4/12/17 9:01 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.02	0.02	0.02	10	86	
056	5/6/17 7:06 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.1	0.74	0.74	185	332	
056	5/7/17 7:10 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.1	0.74	86	139	
056	5/8/17 9:30 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.1	31	110	
056	5/9/17 7:54 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	31	173	
056	5/10/17 8:16 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	20	246	
056	5/15/17 9:30 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.07	1.02	1.04	677	448	
056	5/16/17 9:29 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.07	1.02	30	175	
056	5/17/17 8:57 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.07	31	173	
056	5/18/17 8:32 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.05	0.05	0.05	30	74	
056	5/19/17 9:21 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.01	0.06	0.06	160	336	
056	6/20/17 9:21 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.13	0.16	0.16	269	7700	
056	6/21/17 9:03 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.13	0.16	10	173	
056	6/22/17 9:05 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.13	0	199	
056	6/23/17 8:56 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	10	132	
056	6/27/17 8:38 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.08	0.08	0.08	0	52	
056	6/28/17 9:28 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.08	0.08	906	2190	
056	6/29/17 8:39 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.08	63	183	
056	6/30/17 8:19 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.07	0.07	0.07	31	156	
056	7/1/17 8:27 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.11	0.18	0.18	73	122	
056	7/2/17 7:10 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.11	0.18	52	122	
056	7/3/17 6:56 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.11	73	233	
056	7/4/17 8:33 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	0	31	
056	7/24/17 9:14 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	1.41	1.41	1.41	31	63	
056	7/25/17 8:59 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.01	1.42	1.42	397	882	
056	7/26/17 8:56 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.01	1.42	52	243	
056	7/27/17 8:50 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.04	0.04	0.05	30	171	
056	7/28/17 9:06 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.04	0.04	20	41	
056	7/29/17 7:15 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.04	20	201	
056	9/7/17 9:06 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.6	0.82	0.82	4350	6870	
056	9/8/17 8:47 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.6	0.82	156	431	
056	9/9/17 6:28 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.01	0.01	0.61	31	197	
056	9/10/17 7:29 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.01	0.01	31	181	



2017 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
056	9/11/17 9:06 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.01	0	84	
056	9/14/17 8:58 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.33	0.36	0.36	0	62	
056	10/16/17 9:34 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.1	0	74	
056	10/17/17 9:32 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	10	160	
056	10/18/17 9:19 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	10	148	
056	10/19/17 9:13 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	10	110	
056	11/27/17 9:44 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	10	121	
056	11/28/17 10:02 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	20	97	
056	11/29/17 9:20 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	20	108	
177	1/3/17 8:41 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.89	0.89	0.96	0	195	
177	1/18/17 9:10 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.36	0.66	0.66	121	1920	
177	1/30/17 8:45 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	0	52	
177	2/28/17 8:23 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	41	63	
177	3/13/17 7:22 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.02	0	171	
177	3/29/17 7:47 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.06	0.78	1.26	156	228	
177	4/14/17 7:02 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.02	0	173	
177	4/25/17 7:34 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.89	0.89	0.89	10	41	
177	5/11/17 7:28 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	0	86	
177	5/22/17 7:29 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.12	0.12	0.12	0	146	
177	6/5/17 7:17 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.59	0.77	0.77	148	233	
177	6/19/17 7:30 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.03	0.03	0.05	41	146	
177	7/7/17 7:03 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.3	0.3	0.3	0	10	
177	7/21/17 7:58 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	10	97	
177	8/1/17 7:24 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	0	20	
177	8/14/17 7:12 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.1	0	98	
177	8/30/17 7:42 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.07	0.07	0.07	0	74	
177	9/12/17 7:47 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	0	20	
177	9/26/17 7:30 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	10	74	
177	10/13/17 7:24 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.01	31	31	
177	10/24/17 7:59 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.07	0.07	0.07	52	10	
177	11/6/17 8:44 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.08	0.08	0.08	10	52	
177	11/20/17 8:53 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.23	0.32	158	419	
177	12/4/17 9:02 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	10	156	
177	12/20/17 8:37 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	20	201	
067	4/3/17 8:17 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	1.56	0	547	
067	4/4/17 8:46 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.68	0.68	0.68	0	160	
067	4/5/17 8:49 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.68	0.68	243	1300	
067	4/6/17 8:38 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	1.36	1.36	2.04	52	520	
067	4/7/17 9:44 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	1.36	1.36	269	6870	
067	4/8/17 7:36 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	1.36	0	350	
067	4/9/17 7:15 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	0	148	
067	4/10/17 8:29 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	0	52	
067	4/11/17 8:32 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	10	63	
067	4/12/17 8:44 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.02	0.02	0.02	0	52	
067	5/6/17 6:57 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.1	0.74	0.74	85	246	

2017 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
067	5/7/17 7:00 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.1	0.74	110	520	
067	5/8/17 9:10 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.1	0	119	
067	5/9/17 8:14 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	0	31	
067	5/10/17 7:59 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	0	0	
067	5/15/17 9:10 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.07	1.02	1.04	620	882	
067	5/16/17 9:07 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.07	1.02	20	341	
067	5/17/17 8:43 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.07	31	52	
067	5/18/17 7:40 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.05	0.05	0.05	10	20	
067	5/19/17 9:08 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.01	0.06	0.06	20	20	
067	6/20/17 9:01 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.13	0.16	0.16	20	41	
067	6/21/17 10:24 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.13	0.16	10	41	
067	6/22/17 8:47 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.13	10	63	
067	6/23/17 8:39 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	10	10	
067	6/27/17 8:24 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.08	0.08	0.08	0	74	
067	6/28/17 9:13 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.08	0.08	41	63	
067	6/29/17 8:23 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.08	10	52	
067	6/30/17 7:57 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.07	0.07	0.07	0	0	
067	7/1/17 8:15 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.11	0.18	0.18	0	20	
067	7/2/17 6:56 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.11	0.18	0	20	
067	7/3/17 7:09 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.11	0	0	
067	7/4/17 8:20 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	0	0	
067	7/24/17 8:56 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	1.41	1.41	1.41	0	20	
067	7/25/17 8:41 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.01	1.42	1.42	416	2010	
067	7/26/17 8:40 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.01	1.42	10	399	
067	7/27/17 8:34 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.04	0.04	0.05	31	98	
067	7/28/17 8:50 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.04	0.04	0	10	
067	7/29/17 7:00 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.04	10	41	
067	9/7/17 8:49 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.6	0.82	0.82	288	538	
067	9/8/17 8:35 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.6	0.82	63	450	
067	9/9/17 6:15 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.01	0.01	0.61	0	146	
067	9/10/17 7:15 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.01	0.01	0	31	
067	9/11/17 8:50 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.01	0	20	
067	9/14/17 8:43 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.33	0.36	0.36	0	20	
067	10/16/17 9:14 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.1	10	52	
067	10/17/17 9:12 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	0	31	
067	10/18/17 8:59 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	0	0	
067	10/19/17 8:59 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	10	41	
067	11/28/17 9:45 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	10	74	
067	11/29/17 9:01 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	10	41	
059	4/4/17 8:22 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.68	0.68	0.68	0	97	
059	4/5/17 8:29 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.68	0.68	62	410	
059	4/7/17 9:25 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	1.36	1.36	233	4350	
059	4/11/17 8:12 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	20	295	
059	4/12/17 8:24 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.02	0.02	0.02	0	10	
059	5/8/17 8:46 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.1	10	63	

2017 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
059	5/9/17 8:36 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	10	41	
059	5/15/17 8:49 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.07	1.02	1.04	211	305	
059	5/16/17 8:43 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.07	1.02	52	327	
059	5/17/17 8:20 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.07	0	85	
059	5/19/17 8:31 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.01	0.06	0.06	0	30	
059	6/20/17 8:39 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.13	0.16	0.16	10	41	
059	6/21/17 8:28 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.13	0.16	10	41	
059	6/22/17 8:28 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.13	0	31	
059	6/23/17 8:21 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	0	20	
059	6/27/17 8:06 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.08	0.08	0.08	0	0	
059	6/28/17 8:53 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.08	0.08	10	31	
059	6/29/17 8:05 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.08	10	31	
059	7/24/17 8:35 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	1.41	1.41	1.41	0	10	
059	7/25/17 8:20 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.01	1.42	1.42	933	2140	
059	7/26/17 8:25 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.01	1.42	31	244	
059	7/27/17 8:19 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.04	0.04	0.05	0	74	
059	7/28/17 8:31 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.04	0.04	0	86	
059	9/7/17 8:31 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.6	0.82	0.82	96	120	
059	9/8/17 8:21 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.6	0.82	20	419	
059	9/11/17 8:26 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.01	0	31	
059	9/14/17 8:18 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.33	0.36	0.36	0	74	
059	10/16/17 8:52 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.1	20	41	
059	10/17/17 8:51 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	0	0	
059	10/18/17 8:38 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	0	31	
059	10/19/17 8:39 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	10	10	
176	4/3/17 8:35 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	1.56	41	419	
176	4/4/17 8:33 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.68	0.68	0.68	10	218	
176	4/5/17 8:37 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0.68	0.68	663	571	
176	4/6/17 7:53 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	1.36	1.36	2.04	52	275	
176	4/7/17 9:32 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	1.36	1.36	301	10500	
176	4/8/17 7:15 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	1.36	86	480	
176	4/9/17 6:55 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0	10	97	
176	4/10/17 7:58 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0	0	52	
176	4/11/17 8:20 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0	0	30	
176	4/12/17 8:32 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.02	0.02	0.02	0	10	
176	5/6/17 6:38 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.1	0.74	0.74	860	1180	
176	5/7/17 6:40 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0.1	0.74	581	1140	
176	5/8/17 8:56 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0.1	109	161	
176	5/9/17 8:27 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0	0	63	
176	5/10/17 7:22 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0	10	30	
176	5/15/17 8:56 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.07	1.02	1.04	1440	1450	
176	5/16/17 8:53 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0.07	1.02	145	697	
176	5/17/17 8:29 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0.07	10	187	
176	5/18/17 6:50 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.05	0.05	0.05	30	20	
176	5/19/17 8:38 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.01	0.06	0.06	0	20	

2017 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
176	6/20/17 8:48 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.13	0.16	0.16	31	110	
176	6/21/17 8:37 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0.13	0.16	0	96	
176	6/22/17 8:34 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0.13	30	31	
176	6/23/17 8:28 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0	62	20	
176	6/27/17 8:11 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.08	0.08	0.08	0	74	
176	6/28/17 9:00 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0.08	0.08	74	697	
176	6/29/17 8:09 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0.08	20	246	
176	6/30/17 7:23 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.07	0.07	0.07	31	173	
176	7/1/17 7:48 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.11	0.18	0.18	10	20	
176	7/2/17 6:31 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0.11	0.18	41	73	
176	7/3/17 6:39 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0.11	0	0	
176	7/4/17 7:53 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0	0	10	
176	7/24/17 8:43 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	1.41	1.41	1.41	0	20	
176	7/25/17 8:28 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.01	1.42	1.42	3080	2600	
176	7/26/17 8:30 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0.01	1.42	41	723	
176	7/27/17 8:24 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.04	0.04	0.05	20	231	
176	7/28/17 8:37 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0.04	0.04	0	74	
176	7/29/17 6:37 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0.04	10	63	
176	9/7/17 8:38 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.6	0.82	0.82	9210	8660	
176	9/8/17 8:26 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0.6	0.82	301	2610	
176	9/9/17 5:58 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.01	0.01	0.61	20	441	
176	9/10/17 7:00 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0.01	0.01	10	96	
176	9/11/17 8:31 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0.01	10	120	
176	9/14/17 8:26 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.33	0.36	0.36	10	0	
176	10/16/17 9:00 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0.1	0	31	
176	10/17/17 9:00 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0	20	31	
176	10/18/17 8:46 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0	0	10	
176	10/19/17 8:47 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0	0	10	
176	11/27/17 8:46 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0	10	62	
176	11/28/17 8:29 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0	10	30	
176	11/29/17 8:25 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0	10	0	
167	1/3/17 8:17 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.89	0.89	0.96	10	155	
167	1/18/17 8:44 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.36	0.66	0.66	0	86	
167	1/30/17 8:20 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	0	97	
167	2/28/17 7:57 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	20	74	
167	3/29/17 7:26 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.06	0.78	1.26	31	382	
167	4/3/17 8:01 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	1.56	0	317	
167	4/6/17 8:24 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	1.36	1.36	2.04	10	336	
167	4/8/17 7:29 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	1.36	30	369	
167	4/9/17 7:05 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	10	85	
167	4/10/17 8:13 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	0	10	
167	4/14/17 6:34 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.02	0	52	
167	4/25/17 7:08 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.89	0.89	0.89	10	10	
167	5/6/17 6:47 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.1	0.74	0.74	216	278	
167	5/7/17 6:50 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.1	0.74	108	243	

2017 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
167	5/10/17 7:45 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	0	20	
167	5/11/17 7:00 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	0	10	
167	5/18/17 7:15 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.05	0.05	0.05	0	63	
167	5/22/17 7:12 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.12	0.12	0.12	10	30	
167	6/5/17 6:50 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.59	0.77	0.77	20	73	
167	6/19/17 7:03 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.03	0.03	0.05	20	262	
167	6/30/17 7:43 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.07	0.07	0.07	0	145	
167	7/1/17 8:05 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.11	0.18	0.18	0	20	
167	7/2/17 6:45 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.11	0.18	0	41	
167	7/3/17 7:28 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.11	0	0	
167	7/4/17 8:10 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	0	52	
167	7/7/17 6:36 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.3	0.3	0.3	84	0	
167	7/21/17 7:32 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	10	31	
167	7/29/17 6:48 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.04	10	20	
167	8/1/17 7:00 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	0	20	
167	8/14/17 6:41 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.1	10	52	
167	8/30/17 7:17 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.07	0.07	0.07	31	10	
167	9/9/17 6:09 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.01	0.01	0.61	121	419	
167	9/10/17 7:10 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.01	0.01	31	52	
167	9/12/17 7:22 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	0	20	
167	9/26/17 7:05 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	0	0	
167	10/13/17 7:02 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.01	0	52	
167	10/24/17 7:35 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.07	0.07	0.07	0	20	
167	11/6/17 8:20 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.08	0.08	0.08	20	52	
167	11/20/17 8:32 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.23	0.32	62	20	
167	11/27/17 9:10 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	0	63	
167	11/28/17 9:24 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	0	20	
167	11/29/17 8:47 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	0	0	
167	12/4/17 8:40 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	0	0	
052	4/3/17 8:08 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	1.56	41		18.2
052	4/4/17 8:13 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	3	0.68	0.68	0.68	20		45
052	4/4/17 8:13 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.68	0.68	0.68	31		54.5
052	4/5/17 8:19 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.68	0.68	10		27.3
052	4/6/17 8:17 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	1.36	1.36	2.04	41		500
052	4/7/17 9:14 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	1.36	1.36	41		45.5
052	4/7/17 9:14 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	4.4	0	1.36	1.36	20		10
052	4/10/17 8:20 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	0		9.09
052	4/11/17 8:02 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	0		40
052	4/12/17 8:16 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.02	0.02	0.02	0		25
052	5/8/17 8:34 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	3.6	0	0	0.1	10		20
052	5/8/17 8:34 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0.1	0		9.09
052	5/9/17 8:48 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	0		10
052	5/10/17 7:40 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	0		35
052	5/15/17 8:38 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.07	1.02	1.04	135		220
052	5/16/17 8:30 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.07	1.02	85		109

2017 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
052	5/17/17 8:08 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0.07	20		0
052	5/18/17 7:28 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.05	0.05	0.05	10		50
052	5/19/17 8:16 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.01	0.06	0.06	0		10
052	6/20/17 8:27 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.13	0.16	0.16	85		45.5
052	6/20/17 8:27 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	3.3	0.13	0.16	0.16	30		30
052	6/21/17 8:12 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.13	0.16	169		55
052	6/21/17 8:12 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	3.1	0	0.13	0.16	52		15
052	6/22/17 8:12 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0.13	0		0
052	6/22/17 8:12 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	4	0	0	0.13	0		10
052	6/23/17 8:11 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	63		65
052	6/27/17 7:55 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.08	0.08	0.08	20		45
052	6/28/17 8:26 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.08	0.08	20		127
052	6/29/17 7:54 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0.08	246		270
052	7/24/17 8:25 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	1.41	1.41	1.41	0		63.6
052	7/25/17 8:11 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.01	1.42	1.42	131		218
052	7/26/17 8:12 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.01	1.42	41		109
052	7/27/17 8:07 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.04	0.04	0.05	41		125
052	7/28/17 8:19 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.04	0.04	435		636
052	9/7/17 8:24 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.6	0.82	0.82	243		6200
052	9/8/17 8:13 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.6	0.82	216		250
052	9/11/17 8:17 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0.01	10		10
052	9/14/17 8:05 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.33	0.36	0.36	10		5
052	10/16/17 8:42 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	2.9	0	0	0.1	0		0
052	10/16/17 8:42 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0.1	10		9.09
052	10/17/17 10:01 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	0		0
052	10/17/17 10:01 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	3.6	0	0	0	0		0
052	10/18/17 8:29 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	0		5
052	10/18/17 8:29 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	3.2	0	0	0	0		10
052	10/19/17 8:31 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	0		5
052	10/19/17 8:31 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	3	0	0	0	0		5
052	11/27/17 9:03 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	0		5
069	4/3/17 7:44 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	1.56	10		9.09
069	4/4/17 8:04 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	2	0.68	0.68	0.68	0		40
069	4/4/17 8:04 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.68	0.68	0.68	20		164
069	4/5/17 8:10 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.68	0.68	52		109
069	4/6/17 7:31 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	1.36	1.36	2.04	31		290
069	4/7/17 8:22 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	2.9	0	1.36	1.36	0		10
069	4/7/17 8:22 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	1.36	1.36	31		127
069	4/10/17 7:30 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	20		45.5
069	4/11/17 7:52 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	0		15
069	4/12/17 8:08 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.02	0.02	0.02	0		20
069	5/8/17 8:25 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	4.9	0	0	0.1	0		5
069	5/8/17 8:25 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0.1	10		18.2
069	5/9/17 8:57 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	0		15
069	5/10/17 7:06 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	0		15

2017 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
069	5/15/17 8:28 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.07	1.02	1.04	288		470
069	5/16/17 8:20 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.07	1.02	0		9.09
069	5/17/17 8:01 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0.07	0		15
069	5/18/17 8:01 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.05	0.05	0.05	0		20
069	5/19/17 8:08 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.01	0.06	0.06	0		20
069	6/20/17 8:16 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.13	0.16	0.16	0		9.09
069	6/21/17 8:04 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.13	0.16	20		25
069	6/22/17 8:02 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0.13	10		40
069	6/23/17 8:02 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	249		10
069	6/27/17 7:44 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.08	0.08	0.08	41		310
069	6/28/17 8:14 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.08	0.08	41		54.5
069	6/28/17 8:14 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	3.7	0	0.08	0.08	0		0
069	6/29/17 7:44 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0.08	108		10
069	7/24/17 8:18 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	1.41	1.41	1.41	10		450
069	7/25/17 8:02 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.01	1.42	1.42	98		182
069	7/26/17 8:03 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.01	1.42	31		127
069	7/27/17 7:59 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.04	0.04	0.05	0		30
069	7/28/17 8:11 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	3.3	0	0.04	0.04	0		5
069	7/28/17 8:11 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.04	0.04	0		36.4
069	9/7/17 8:14 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	4.9	0.6	0.82	0.82	41		20
069	9/7/17 8:14 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.6	0.82	0.82	1020		764
069	9/8/17 8:04 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.6	0.82	135		127
069	9/11/17 8:06 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0.01	0		30
069	9/11/17 8:06 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	3.6	0	0	0.01	0		0
069	9/14/17 7:56 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.33	0.36	0.36	0		10
069	10/16/17 8:33 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0.1	0		9.09
069	10/17/17 10:10 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	0		0
069	10/18/17 8:21 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	0		25
069	10/19/17 8:21 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	0		20
069	11/27/17 8:30 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	20		10
137	1/5/17 8:24 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	13.2	0	0.06	0.95	0		5
137	1/5/17 8:24 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.06	0.95	0		20
137	1/26/17 10:47 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	14.1	0.05	0.07	1.16	0		0
137	1/26/17 10:47 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.05	0.07	1.16	31		30
137	2/2/17 10:30 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	10.9	0	0.05	0.11	0		10
137	2/2/17 10:30 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.05	0.11	10		5
137	2/15/17 10:52 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	11.2	0.22	0.22	0.31	0		0
137	2/15/17 10:52 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.22	0.22	0.31	5		40
137	3/3/17 10:35 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0.02	0		0
137	3/3/17 10:35 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	10.6	0	0	0.02	0		10
137	3/21/17 9:32 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	11.2	0	0	0.01	0		0
137	3/21/17 9:32 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0.01	0		0
137	4/13/17 9:30 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	11.9	0	0.02	0.02	0		5
137	4/13/17 9:30 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.02	0.02	0		20
137	4/20/17 9:06 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	11.9	0.01	0.08	0.08	0		0

2017 MWRA Central Lab Analyses - Bacteria

Station	Day/Time(EST)	Surface/Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Enterococcus (col/100 mL)	E. coli (col/100 mL)	Fecal coliform (col/100 mL)
137	4/20/17 9:06 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.01	0.08	0.08	0		0
137	5/2/17 9:14 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	10	0.19	0.19	0.2	0		0
137	5/2/17 9:14 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.19	0.19	0.2	0		15
137	5/23/17 9:36 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	13.3	0	0.12	0.12	0		0
137	5/23/17 9:36 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.12	0.12	0		0
137	6/12/17 10:18 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	12	0	0	0	10		0
137	6/12/17 10:18 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	0		15
137	6/26/17 9:32 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0.08	15.5		7.5
137	6/26/17 9:32 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	11.4	0	0	0.08	0		0
137	7/6/17 9:54 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	13.1	0	0	0	0		5
137	7/6/17 9:54 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	0		5
137	7/31/17 9:39 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	0		0
137	7/31/17 9:39 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	12.1	0	0	0	0		5
137	8/7/17 9:18 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0.16	0		360
137	8/7/17 9:18 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	12.3	0	0	0.16	10		0
137	8/29/17 9:47 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	10.2	0	0	0	0		5
137	8/29/17 9:47 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	0		0
137	9/15/17 9:35 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.21	0.54	0.57	10		15
137	9/15/17 9:35 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	11.8	0.21	0.54	0.57	0		0
137	9/25/17 7:27 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	10.6	0	0	0.03	10		5
137	9/25/17 7:27 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0.03	0		10
137	10/3/17 7:19 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	12.8	0	0	0	0		0
137	10/3/17 7:19 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	0		55
137	10/23/17 9:16 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	11.5	0	0	0	0		5
137	10/23/17 9:16 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	0		10
137	11/7/17 8:28 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	10.6	0.13	0.21	0.21	10		0
137	11/7/17 8:28 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.13	0.21	0.21	74		115
137	11/16/17 10:30 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.19	0.19	0.19	0		15
137	11/16/17 10:30 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	12.9	0.19	0.19	0.19	0		15
137	12/7/17 11:20 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	13.5	0	0.46	0.54	10		0
137	12/7/17 11:20 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.46	0.54	0		0



2017 MWRA Central Lab Analyses - Nutrients

Station	Day/Time(EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Ammonium (uM)	Nitrate + nitrate (uM)	Total Nitrogen (uM)	Particulate P (uM)	Phosphate (uM)	Chlorophyll a (ug/L)	Phaeophytin (ug/L)	Particulate carbon (uM)	Particulate nitrogen (uM)	Total dissolved N (uM)	Total dissolved P (uM)	Total phosphorus (uM)	Total suspended solids (mg/L)	
012	1/3/17 10:41 AM	S	CHARLES RIVER	UPPER BASIN	0.1	6.235	81.45	119		0.396	2.97	2.73					1.011	5.49	
012	1/18/17 11:23 AM	S	CHARLES RIVER	UPPER BASIN	0.1	5.47	60	96.5		0.324	2.88	3.94					1.19	3.735	
012	1/30/17 11:00 AM	S	CHARLES RIVER	UPPER BASIN	0.1	8.59	55.6	90.6		0.345	2.89	3.24					1.14	3.14	
012	2/28/17 10:36 AM	S	CHARLES RIVER	UPPER BASIN	0.1		53.7	82.2		0.36	3.3	2.9					1.3	1.97	
012	3/13/17 9:36 AM	S	CHARLES RIVER	UPPER BASIN	0.1		65.5	95.55		0.1745	6.405	4.87					0.8	5.21	
012	3/29/17 10:22 AM	S	CHARLES RIVER	UPPER BASIN	0.1	2.67	51.7	84.4		0.586	9.37	4.95					1.14	4.46	
012	4/14/17 9:22 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1.3	30	64.9		0.261	19.7	9.06					1.28	5.48	
012	4/25/17 9:56 AM	S	CHARLES RIVER	UPPER BASIN	0.1	7.79	43.75	83.6		0.488	9.38	6.45					1.32	4.025	
012	5/11/17 10:16 AM	S	CHARLES RIVER	UPPER BASIN	0.1	2.14	33.6	68.8		0.784	3.82	4.52					1.5	3.08	
012	5/22/17 9:38 AM	S	CHARLES RIVER	UPPER BASIN	0.1	5.4	22.4	64		0.578	7.42	8.62					1.71	3.18	
012	6/5/17 9:26 AM	S	CHARLES RIVER	UPPER BASIN	0.1	8.67	39.7	90.75		1.145	2.31	4.005					2.24	3.21	
012	6/19/17 9:56 AM	S	CHARLES RIVER	UPPER BASIN	0.1	10.1	23.1	72.6		2.42	4.86	6.55					4.83	2.46	
012	7/7/17 9:02 AM	S	CHARLES RIVER	UPPER BASIN	0.1	3	27.4	63.5		0.938	2.08	3.77					2.17	2.06	
012	7/21/17 10:14 AM	S	CHARLES RIVER	UPPER BASIN	0.1	3.175	35.3	75.25		0.9945	2.695	4.16					2.47	2.03	
012	8/1/17 10:02 AM	S	CHARLES RIVER	UPPER BASIN	0.1	2.27	27.9	60.5		0.856	2.54	4.26					2.14		
012	8/14/17 9:57 AM	S	CHARLES RIVER	UPPER BASIN	0.1	5.52	30.3	91.7		1.77	10.08	17.61					4.45	40.7	
012	8/30/17 10:26 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1.465	22.15	55.85		0.614	1.3	2.335					1.29		
012	9/12/17 10:16 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1.47	18.4	46.3		0.449	1.32	2.38					1.17	1.15	
012	9/26/17 10:00 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1.7	45.9	75.7		0.742	1.06	2.34					1.06	1.28	
012	10/13/17 10:30 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.421	42.3	64.8		0.422	0.98	2.42					0.795	0.985	
012	10/24/17 10:06 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.651	12.1	37.9		0.419	1.36	2.92					1.89	1.97	
012	11/6/17 11:13 AM	S	CHARLES RIVER	UPPER BASIN	0.1	4.22	32.7	75.5		1.38	1.53	4.01					2.1	1.79	
012	11/20/17 11:13 AM	S	CHARLES RIVER	UPPER BASIN	0.1	8.23	50.4	86.4		1.45	1.01	2.92					2	3.86	
012	12/4/17 11:22 AM	S	CHARLES RIVER	UPPER BASIN	0.1	6	60.5	93		1.3	1.25	2.92					1.35	2.17	
166	1/3/17 9:51 AM	S	CHARLES RIVER	LOWER BASIN	0.1	15.2	76.1	112		0.833	2.58	2.24					1.63	3.74	
166	1/18/17 10:31 AM	S	CHARLES RIVER	LOWER BASIN	0.1	10.5	71.7	114		0.699	3.08	3.86					1.43	3.77	
166	1/30/17 9:56 AM	S	CHARLES RIVER	LOWER BASIN	0.1	7.975	68.8	107		0.753	4.73	3.47					1.755	3.505	
166	2/28/17 9:41 AM	S	CHARLES RIVER	LOWER BASIN	0.1		88.3	118		0.535	4.91	3.72					1.56	2.58	
166	3/13/17 8:41 AM	S	CHARLES RIVER	LOWER BASIN	0.1		65.7	96.9		0.337	9.11	5.32					1.06	3.63	
166	3/29/17 9:26 AM	S	CHARLES RIVER	LOWER BASIN	0.1	1.94	70.2	104		0.386	10.6	3.96					1.11	2.86	
166	4/14/17 8:22 AM	S	CHARLES RIVER	LOWER BASIN	0.1	1.4	50.5	77.3		0.287	16	9.69					1.42	6.01	
166	4/25/17 9:04 AM	S	CHARLES RIVER	LOWER BASIN	0.1	3.23	36.3	71.4		0.199	17.68	7.69					1.19	3.89	
166	5/11/17 9:20 AM	S	CHARLES RIVER	LOWER BASIN	0.1	12.3	42.9	85.9		0.65	5.04	6.03					1.64	4.35	
166	5/22/17 8:57 AM	S	CHARLES RIVER	LOWER BASIN	0.1	10.1	40.9	81		0.547	10.5	7.37					1.67	3.1	
166	6/5/17 8:34 AM	S	CHARLES RIVER	LOWER BASIN	0.1	16.9	42.5	106		1.02	9.4	7.14					2.35	3.66	
166	6/19/17 8:57 AM	S	CHARLES RIVER	LOWER BASIN	0.1	8.29	37.2	82.3		0.843	12.2	9.69					2.98	3.63	
166	7/7/17 8:14 AM	S	CHARLES RIVER	LOWER BASIN	0.1	1.67	37	81.35		0.5405	21.3	18.3					2.39	3.86	
166	7/21/17 9:17 AM	S	CHARLES RIVER	LOWER BASIN	0.1	2.2	27.7	73.5		0.425	21.1	13.3					2.04	3.49	
166	8/1/17 8:55 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.328	32.15	80.15		0.3775	50	15.3					2.39		
166	8/14/17 8:38 AM	S	CHARLES RIVER	LOWER BASIN	0.1	1.16	5.79	50.5		0.478	34.89	5.73					1.55	4.52	
166	8/30/17 9:13 AM	S	CHARLES RIVER	LOWER BASIN	0.1	3.34	19.1	55		0.513	9.09	7.68					1.13		
166	9/12/17 9:14 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.181	10	53		0.318	16.71	5.07					1.36	7.16	
166	9/26/17 9:03 AM	S	CHARLES RIVER	LOWER BASIN	0.1	3.04	23.1	63		0.449	24.77	14.95					1.52	4.01	
166	10/13/17 9:27 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.4955	19.65	54.35		0.1575	10.75	10.91					1.12	1.82	
166	10/24/17 9:11 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.477	18.2	46.9		0.0849	17.7	10.2					1.81	5.28	
166	11/6/17 10:09 AM	S	CHARLES RIVER	LOWER BASIN	0.1	9.695	39.1	72.55		1.36	1.855	3.035					2.045	2.385	
166	11/20/17 10:09 AM	S	CHARLES RIVER	LOWER BASIN	0.1	10.2	44.7	86.4		1.63	1.35	1.97					2.34	2.57	
166	12/4/17 10:24 AM	S	CHARLES RIVER	LOWER BASIN	0.1	10.3	62.7	104		1.97	2.19	1.92					2.04	1.59	
166	12/20/17 10:10 AM	S	CHARLES RIVER	LOWER BASIN	0.1	9.24	69.6	103		1.35	2.38	2.33					1.7	1.96	
083	1/3/17 9:15 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	33.3	47.2	95		0.178	3.28	2.43					0.593	2.31	
083	1/18/17 9:52 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	26.6	45.9	96.9		0.263	5.33	4.77					0.971	2.73	
083	1/30/17 9:22 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	37.5	59.8	122		0.333	8.91	5.36					1.02	5.38	
083	2/28/17 9:01 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1		77.2	129		0.428	7.16	3.66					1.15	2.63	
083	3/13/17 8:04 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1		72.9	136		0.238	14.33	5.53					0.604	3.62	
083	3/29/17 8:52 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	31.3	62.6	117.5		0.398	10.765	3.13					1.016	5.125	
083	4/3/17 9:18 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1														
083	4/4/17 7:27 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1														
083	4/5/17 7:20 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1														
083	4/6/17 9:29 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1														
083	4/7/17 6:32 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1														
083	4/8/17 8:10 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1														
083	4/9/17 7:40 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1														
083	4/10/17 9:06 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1														
083	4/11/17 7:23 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1														
083	4/12/17 7:21 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1														
083	4/14/17 7:47 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	23.8	80.5	137		0.303	16.4	11.1					1.44	11.5	

2017 MWRA Central Lab Analyses - Nutrients

Station	Day/Time(EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Ammonium (uM)	Nitrate + nitrate (uM)	Total Nitrogen (uM)	Particulate P (uM)	Phosphate (uM)	Chlorophyll a (ug/L)	Phaeophytin (ug/L)	Particulate carbon (uM)	Particulate nitrogen (uM)	Total dissolved N (uM)	Total dissolved P (uM)	Total phosphorus (uM)	Total suspended solids (mg/L)
083	4/25/17 8:07 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	9.42	93.2	129		0.35	10.51	6.41					1.36	6.25
083	5/6/17 7:28 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1													
083	5/7/17 7:36 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1													
083	5/8/17 7:03 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1													
083	5/9/17 7:24 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1													
083	5/10/17 8:38 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1													
083	5/11/17 8:32 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	6.48	73.8	101.9		0.169	20.35	7.72					1.045	6.9
083	5/15/17 7:32 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1													
083	5/16/17 10:01 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1													
083	5/17/17 9:49 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1													
083	5/18/17 8:45 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1													
083	5/19/17 7:43 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1													
083	5/22/17 8:13 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	1.98	67.3	101		0.0591	71.6	21.7					1.15	9.07
083	6/5/17 7:51 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	4.16	63.5	109		0.081	19.1	8.62					1.2	7.94
083	6/19/17 8:13 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.324	48.45	92.15		0.1081	47.95	11.95					1.34	6.34
083	6/20/17 7:14 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1													
083	6/21/17 9:31 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1													
083	6/22/17 9:34 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1													
083	6/23/17 9:24 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1													
083	6/27/17 9:25 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1													
083	6/28/17 10:21 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1													
083	6/29/17 9:23 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1													
083	7/1/17 8:55 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1													
083	7/2/17 7:45 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1													
083	7/3/17 7:57 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1													
083	7/4/17 8:45 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1													
083	7/7/17 7:41 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	3.17	3.1	70.5		0.115	56.6	19.3					1.5	8.64
083	7/21/17 8:40 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	5.8	21.8	60.7		0.263	7.85	6.01					1.54	4.49
083	7/24/17 8:05 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1													
083	7/25/17 7:27 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1													
083	7/27/17 9:19 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1													
083	7/28/17 9:45 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1													
083	7/29/17 7:28 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1													
083	8/1/17 8:10 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	5.44	23.7	59.2		0.314	4.13	2.62					1.12	
083	8/14/17 8:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	5.045	23.85	53.65		0.4765	4.315	3.205					1.22	4.205
083	8/30/17 8:33 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	1.86	22.6	48.9		0.478	3.79	3.41					1.01	
083	9/7/17 7:28 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1													
083	9/8/17 7:40 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1													
083	9/9/17 6:37 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1													
083	9/10/17 7:42 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1													
083	9/11/17 7:15 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1													
083	9/12/17 8:31 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	3.57	18.3	42.05		0.3675	4.105	3.905					0.7785	3.5
083	9/14/17 7:31 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1													
083	9/26/17 8:23 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	4.86	17.4	50.2		0.456	2.39	5.46					0.803	0.95
083	10/13/17 8:37 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	3.77	18.2	40.6		0.494	2.16	4.03					1.18	1.33
083	10/16/17 7:37 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1													
083	10/17/17 7:45 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1													
083	10/18/17 7:29 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1													
083	10/19/17 8:33 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1													
083	10/24/17 8:36 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	1.7	15.1	35.8		0.373	3.42	3.66					1.88	2.07
083	11/6/17 9:30 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	10.2	33.7	62.3		0.703	3.35	3.75					0.965	1.69
083	11/20/17 9:31 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	19.7	37.1	71.3		0.688	5.9	3.57					0.755	2.02
083	11/27/17 10:20 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1													
083	11/28/17 10:30 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1													
083	11/29/17 9:50 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1													
083	12/4/17 9:44 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	24.8	43.8	84.9		1.15	11	4.93					0.799	2.14
083	12/20/17 9:26 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	25.3	46.4	91.1		0.597	6.39	4.6					0.836	2.5
066	1/3/17 9:08 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	32.8	49.5	96.3		0.235	3.96	2.74					0.671	3.28
066	1/18/17 9:41 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	30.4	49.6	107		0.287	6.18	6.43					1.02	3.89
066	1/30/17 9:16 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	35.6	64.3	126		0.378	6.77	3.72					0.891	2.29
066	2/14/17 9:18 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	68.8	135.5	135.5		0.4755	8.26	5.055					0.618	2.745
066	2/28/17 8:52 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	72.75	126	126		0.4605	6.355	4.015					1.099	4.015
066	3/13/17 7:56 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	77	137	137		0.263	12.29	4.92					0.672	4.85
066	3/29/17 8:47 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	30.6	63.3	123		0.502	13.1	5.41					1.14	7.47
066	4/14/17 7:37 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	22.55	82.05	135		0.3805	12.9	9.435					1.725	13.3
066	4/25/17 8:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	12.8	87.1	122		0.265	15.61	8.35					1.38	11.9

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Station	Day/Time(EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Ammonium (uM)	Nitrate + nitrate (uM)	Total Nitrogen (uM)	Particulate P (uM)	Phosphate (uM)	Chlorophyll a (ug/L)	Phaeophytin (ug/L)	Particulate carbon (uM)	Particulate nitrogen (uM)	Total dissolved N (uM)	Total dissolved P (uM)	Total phosphorus (uM)	Total suspended solids (mg/L)	
066	5/11/17 8:21 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	8.74	72.4	109		0.206	22.6	10.7					1.26	10.4	
066	5/22/17 8:04 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	3.775	62.45	105		0.0544	55.2	18					1.51	8.245	
066	6/5/17 7:44 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	9.31	58.5	108		0.135	13.8	5.51					1.11	4.72	
066	6/19/17 8:04 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	7.21	42	94.4		0.241	46.1	15.9					1.93	5.91	
066	7/7/17 7:33 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	10.7	4.33	82.6		0.237	49.9	21.8					2.31	8.36	
066	7/21/17 8:31 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	11.6	18.7	66.5		0.53	12.3	8.28					2.64	4.12	
066	8/1/17 8:01 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	10.6	21.1	64.2		0.412	9.19	5.48					1.93		
066	8/14/17 7:52 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	12.9	20.3	56.8		0.682	6.27	4.07					1.78	5.15	
066	8/30/17 8:24 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	4.24	13.5	40.6		0.367	8.88	9.34					1.12		
066	9/12/17 8:23 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	4.21	17.6	45.6		0.385	7.13	5.89					1.1	4.27	
066	9/26/17 8:14 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	15.3	17	58.6		0.609	7.05	5.58					1.39	3.93	
066	10/13/17 8:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	10	17	49.5		0.665	8.14	7.88					1.76	1.44	
066	10/24/17 8:26 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	9.78	18	42.15		0.576	5.315	4.66					1.96	2.71	
066	11/6/17 9:22 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	17.3	33.3	68.5		1.11	4.79	4.74					1.47	3.73	
066	11/20/17 9:24 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	24	41	79.5		0.814	5.54	3.31					1.05	2.78	
066	12/4/17 9:36 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	28.7	46	91.5		1.15	9.78	5.69					0.913	2.45	
066	12/20/17 9:16 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	30.5	49.15	97.75		0.9065	6.295	5.015					1.555	2.88	
167	1/3/17 8:17 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	28	43.2	85.7		0.286	1.99	2.21					0.773	3.99	
167	1/18/17 8:44 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	26.7	53	105		0.241	3.79	5.43					0.97	3.1	
167	1/30/17 8:20 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	27.3	62.4	111		0.382	5.06	3.53					0.927	2.52	
167	2/28/17 7:57 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1		71.8	117		0.495	6.99	5.32					1.44	4.84	
167	3/29/17 7:26 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	26.1	60.5	114		0.305	8.16	4.05					1.02	6.74	
167	4/3/17 8:01 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1														
167	4/6/17 8:24 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1														
167	4/8/17 7:29 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1														
167	4/9/17 7:05 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1														
167	4/10/17 8:13 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1														
167	4/14/17 6:34 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	19.6	78.9	129		0.313	18.1	12.4					1.56	10.5	
167	4/25/17 7:08 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	14.1	71	113		0.271	23.4	11.41					1.6	9.02	
167	5/6/17 6:47 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1														
167	5/7/17 6:50 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1														
167	5/10/17 7:45 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1														
167	5/11/17 7:00 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	2.13	46.8	81.3		0.0836	47.1	17.7					1.53	10.3	
167	5/18/17 7:15 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1														
167	5/22/17 7:12 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	4.67	43.6	79.6		0.0885	56.2	28.5					1.5	9.74	
167	6/5/17 6:50 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	4.49	42.1	90.7		0.0933	29.3	14.7					1.79	9.35	
167	6/19/17 7:03 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	10	24.5	148		0.195	156	38					6.59	23.3	
167	6/30/17 7:43 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1														
167	7/1/17 8:05 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1														
167	7/2/17 6:45 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1														
167	7/3/17 7:28 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1														
167	7/4/17 8:10 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1														
167	7/7/17 6:36 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	15.5	5.72	81.7		0.243	37.7	41.1					4.49	6.28	
167	7/21/17 7:32 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	3.08	1.93	61.9		0.296	39.2	35.6					3.4	7.93	
167	7/29/17 6:48 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1														
167	8/1/17 7:00 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.504	1.01	49.4		0.271	33.2	17.8					2.6		
167	8/14/17 6:41 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	1.37	1.19	37.8		0.307	18.18	9.46					1.93	6.39	
167	8/30/17 7:17 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.426	0.374	41.2		0.324	25.8	23.1					2.24		
167	9/9/17 6:09 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1														
167	9/10/17 7:10 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1														
167	9/12/17 7:22 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.187	0.473	31		0.093	19.2	9.82					1.31	8.95	
167	9/26/17 7:05 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.794	7.3	45.1		0.275	24.91	17.22					1.43	7.78	
167	10/13/17 7:02 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.41	0.922	53		0.155	56.32	35.11					2.44	4.05	
167	10/24/17 7:35 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	1.79	0.605	32.5		0.131	41.4	22.1					1.72	9.28	
167	11/6/17 8:20 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	20.8	20.4	63.4		1.09	11.7	9.11					2.13	4.81	
167	11/20/17 8:32 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	25.5	32.3	75.4		0.925	5.91	3.26					1.23	3.22	
167	11/27/17 9:10 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1														
167	11/28/17 9:24 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1														
167	11/29/17 8:47 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1														
167	12/4/17 8:40 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	25.2	40.8	80.7		1.31	5.46	3.28					0.862	1.78	
137	1/5/17 8:24 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	13.2	2.14	3.21			0.444	3.85	2.14							2.21
137	1/5/17 8:24 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	4.67	5.02		0.501	0.503	6.57	3.47	40.6	6.04	22	0.829		2.84	
137	1/26/17 10:47 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	14.1	3.33	4.86			0.548	3.81	3.09							1.49
137	1/26/17 10:47 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	8.27	19.5		0.507	0.561	3.88	2.6	43.3	5	40.1	0.825		3.73	
137	2/2/17 10:30 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	10.9		7.72			0.674	5.04	2.01							2.15
137	2/2/17 10:30 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1		19.2		0.309	0.626	3.07	2.22	25.5		41.3	0.923		2	

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Station	Day/Time(EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Ammonium (uM)	Nitrate + nitrate (uM)	Total Nitrogen (uM)	Particulate P (uM)	Phosphate (uM)	Chlorophyll a (ug/L)	Phaeophytin (ug/L)	Particulate carbon (uM)	Particulate nitrogen (uM)	Total dissolved N (uM)	Total dissolved P (uM)	Total phosphorus (uM)	Total suspended solids (mg/L)
137	2/15/17 10:52 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	11.2		4.46			0.14	4.21	2.68						3.96
137	2/15/17 10:52 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1		21.85		0.4415	0.4235	2.595	1.835	36.7	4.46	57.9	0.669		2.38
137	3/3/17 10:35 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1		10.6		0.531	0.282	8.21	5.12	50.3	6.9	23	0.517		2.94
137	3/3/17 10:35 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	10.6		5.02			0.273	10.2	4.73						3.4
137	3/21/17 9:32 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	11.2	0.96	3.58			0.441	2.36	1.67						2.59
137	3/21/17 9:32 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	3.57	10.5		0.389	0.426	1.7	1.74	27	3.95	25.6	0.494		3.12
137	4/13/17 9:30 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	11.9		9.58			0.523	5.56	3.24						4.28
137	4/13/17 9:30 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	10.2	31		0.568	0.543	6.1	3.8	56.6	7.04	51.9	0.654		3.52
137	4/20/17 9:06 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	11.9	2.18	3.66			0.305	10.9	5.99						4.76
137	4/20/17 9:06 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.736	12.3		0.659	0.117	10.3	11.6	96.7	12.1	25.1	0.405		9.2
137	5/2/17 9:14 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	10	7.74	30.7			0.255	12.8	5.45						2.37
137	5/2/17 9:14 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	5.12	3.21		0.284	0.61	0.93	1.84	18.2	2.2	18.1	0.71		3.52
137	5/23/17 9:36 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	13.3	5.56	2.06			0.551	2.22	6.78						15.4
137	5/23/17 9:36 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	5.52	11.3		0.498	0.151	7.2	4.34	46.1	5.91	27.7	0.272		3.36
137	6/12/17 10:18 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	12	7.3	3.46			0.911	0.9	3.04						4.61
137	6/12/17 10:18 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.19	3.26		0.844	0.0998	12.95	13.15	116	15	18.4	0.387		4.05
137	6/26/17 9:32 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	3.1	3.9		0.583	0.654	5.445	2.675	54.6	7.24	21.5	0.9945		3.225
137	6/26/17 9:32 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	11.4	2.87	3.27			0.838	2.44	2.14						3.35
137	7/6/17 9:54 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	13.1	2.08	0.77			0.47	13	7.49						17.8
137	7/6/17 9:54 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.028	0.204		0.615	0.01	9.07	2.71	64.3	7.8	11.7	0.11		2.01
137	7/31/17 9:39 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.028	0.251		1.83	0.083	49.4	12.9	207	23.9	15.3	0.38		5.28
137	7/31/17 9:39 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	12.1	8.76	1.61			1.23	6.54	3.94						3.59
137	8/7/17 9:18 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	3.34	1.47		0.863	0.663	11.3	4.61	64.6	9.79	17.5	0.948		3.11
137	8/7/17 9:18 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	12.3	7.44	0.916			1.19	1.43	2.45						6.44
137	8/29/17 9:47 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	10.2	5.33	0.879			1.03	1.93	2.29						2.47
137	8/29/17 9:47 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.114	0.22		0.786	0.419	6.84	4.19	73.7	10.6	12.5	0.847		2.56
137	9/15/17 9:35 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	4.89	3.18		0.61	0.764	6.77	2.33	45	6.35	19.7	1.1		2.35
137	9/15/17 9:35 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	11.8	7.11	2.74			1.14	2.91	1.87						2.73
137	9/25/17 7:27 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	10.6	7.9	2.27			1.18	3.82	3.28						7.15
137	9/25/17 7:27 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	6.11	3.1		0.519	1.11	5.05	3.25	39.9	6.02	21.9	1.48		4.36
137	10/3/17 7:19 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	12.8	7.59	2.57			1.41	3.41	2.87						3.63
137	10/3/17 7:19 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	3.26	3.21		0.708	0.951	8.58	3.98	49.6	7.73	25.9	1.17		2.43
137	10/23/17 9:16 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	11.5	18.8	4.57			1.92	0.86	1.21						4.23
137	10/23/17 9:16 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	18.9	6.6		0.406	1.76	2.8	1.8	21.3	2.73	35.4	1.97		3.15
137	11/7/17 8:28 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	10.6	20.9	8.95			2.37	0.83	1.14						3.84
137	11/7/17 8:28 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	18.7	11.2		0.355	2.15	0.64	0.84	19.9	1.85	43.3	2.41		1.97
137	11/16/17 10:30 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	6.66	11.7		0.507	1.48	1.44	1.37	25.5	2.78	29.9	1.47		4.75
137	11/16/17 10:30 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	12.9	6.7	9.5			1.55	2.12	1.98						12.4
137	12/7/17 11:20 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	13.5	2.12	5.74			0.925	0.85	1.3						3.74
137	12/7/17 11:20 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	4.26	9.17		0.341	1.09	0.72	1.02	18.1	1.76	27.1	1.13		2.54

**APPENDIX II**

2017 raw data for physical profile results.

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2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
012	1/3/17 10:41 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.89	0.89	0.96	2.21	0.48	12.68	92.5	0.977	4.1	7.45	
012	1/3/17 10:41 AM	B	CHARLES RIVER	UPPER BASIN		0.89	0.89	0.96	2.21	0.48	12.85	93.8	0.978	4.1	7.42	
012	1/18/17 11:23 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.36	0.66	0.66	2.44	0.38	13.08	95.9	0.779	14.2	7.42	
012	1/30/17 11:00 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	3.13	0.31	13.05	97.5	0.645	4.2	7.61	
012	2/28/17 10:36 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	7.28	0.38	12.43	103.4	0.778	3.9	7.36	
012	3/13/17 9:36 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.02	1.55	0.43	14.03	100.5	0.884	4.1	7.78	
012	3/29/17 10:22 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.06	0.78	1.26	5.44	0.39	11.99	95.2	0.792	6.9	8.06	
012	4/14/17 9:22 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.02	13.84	0.27	11.06	107.2	0.556		7.42	
012	4/25/17 9:56 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.89	0.89	0.89	13.63	0.34	10.36	99.9	0.688		7.47	
012	5/11/17 10:16 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	14.75	0.3	11.83	116.9	0.613		7.95	
012	5/22/17 9:38 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.12	0.12	0.12	19.52	0.28	8.68	94.7	0.57		7.42	
012	6/5/17 9:26 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.59	0.77	0.77	17.29	0.31	7.88	82.2	0.637	6.6	7.39	
012	6/19/17 9:56 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.03	0.03	0.05	22.95	0.27	6.35	74	0.556	11	7.14	
012	7/7/17 9:02 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.3	0.3	0.3	23.86	0.36	4.97	59	0.747	1.7	7.62	
012	7/21/17 10:14 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	26.55	0.35	5.58	69.6	0.731	1.9	7.6	
012	8/1/17 10:02 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	23.82	0.16	7.35	87.1	0.337	4.8	7.76	
012	8/14/17 9:57 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.1	24.21	0.26	6.64	79.3	0.547	12.2	7.81	
012	8/30/17 10:26 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.07	0.07	0.07	20.6	0.36	6.54	72.9	0.736		7.44	
012	9/12/17 10:16 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	20.21	0.36	8.09	89.5	0.741	1.8	7.95	
012	9/26/17 10:00 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	21.47	0.37	8.54	96.9	0.761		7.64	
012	10/13/17 10:30 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.01								
012	10/24/17 10:06 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.07	0.07	0.07	16.93	0.44	7.14	73.9	0.884	4.5	7.64	
012	11/6/17 11:13 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.08	0.08	0.08	13.67	0.24	8.02	77.3	0.501		7.26	
012	11/20/17 11:13 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.23	0.32	6.37	0.21	12.13	98.5	0.43	2.3	7.55	
012	12/4/17 11:22 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	5.81	0.29	11.94	95.6	0.598	9.4	7.33	
001	3/23/17 9:20 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0								
001	3/27/17 9:06 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.48	0.48	0.56	4.44	0.42	12.43	96.2	0.861	5.5	7.8	
001	3/28/17 10:10 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.72	1.2	1.2								
001	3/29/17 10:07 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.06	0.78	1.26	5.5	0.46	12.02	95.7	0.924	5.9	7.79	
001	3/30/17 8:56 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.06	0.78	5.87	0.42	12.31	98.8	0.847	9.3	7.66	
001	3/31/17 8:46 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.87	0.87	0.93	6.54	0.39	12.04	98.3	0.787	50.1	7.55	
001	4/26/17 9:29 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.56	1.45	1.45	12.51	0.33	10.01	94.1	0.671		7.1	
001	4/27/17 8:46 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.56	1.45	12.91	0.34	10.14	96.3	0.695		7.29	
001	4/28/17 9:01 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.01	0.57	14.45	0.35	9.75	95.7	0.713		7.33	
001	4/29/17 8:10 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.01	0.01								
001	4/30/17 7:50 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.01	0.02								
001	5/1/17 9:16 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.01	0.01	15.87	0.33	9.06	91.7	0.67	9.3	7.38	
001	5/3/17 8:52 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.19	0.19	14.58	0.3	9.54	93.9	0.621	10.7	7.31	0.7
001	5/3/17 8:52 AM	B	CHARLES RIVER	UPPER BASIN		0	0.19	0.19	14.58	0.3	9.51	93.6	0.621	13.1	7.29	
001	5/5/17 8:41 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.64	0.64	0.64	14.38	0.35	10.31	101.1	0.705		7.45	
001	5/26/17 9:10 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.55	1.18	1.18	15.26	0.29	9.04	90.3	0.593		7.22	
001	5/27/17 8:17 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.55	1.18								
001	5/28/17 8:40 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.55								
001	5/29/17 8:31 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.05	0.05	0.05								
001	5/30/17 8:38 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.05	0.05	15.91	0.34	8.97	90.9	0.684	3.1	7.34	
001	6/6/17 8:29 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.8	1.39	1.57	15.07	0.26	8.81	87.6	0.542	32.2	7.21	
001	6/7/17 8:52 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.04	0.84	1.43								
001	6/8/17 8:57 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.04	0.84	16.58	0.28	8.59	88.2	0.58	6.3	7.36	
001	6/9/17 8:58 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.04	17.8	0.3	8.68	91.5	0.615	10.7	7.29	
001	6/13/17 9:35 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.53	0.53	0.53	24.03	0.27	7.6	90.5	0.559	3.1	7.28	0.6
001	6/14/17 9:15 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.53	0.53	24.7	0.27	7.45	89.7	0.565	5.3	7.32	0.4
001	6/15/17 8:58 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.53	24.7	0.27	7.45	89.7	0.565	5.3	7.32	
001	6/16/17 8:35 AM	S	CHARLES RIVER	UPPER BASIN	0.1	2.13	2.13	2.13	22.88	0.29	7.61	88.6	0.589	4.7	7.44	
001	7/13/17 9:14 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.14	1.47	1.64								
001	7/14/17 9:30 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.14	1.47								
001	7/15/17 8:20 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.14								
001	7/16/17 7:40 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0								

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
001	7/17/17 9:29 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	24.28	0.37	7.57	90.6	0.75	3	7.34	
001	7/17/17 9:29 AM	B	CHARLES RIVER	UPPER BASIN					23.63	0.36	6.99	82.6	0.745	3.1	7.28	
001	7/18/17 9:25 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.12	0.12	0.12	24.94	0.37	6.95	84.2	0.756	3	7.52	
001	8/19/17 9:38 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.25	0.25								
001	8/20/17 8:21 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.01	0.25								
001	8/21/17 9:44 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.01	24.63	0.34	7.39	88.9	0.7	2.2	7.39	
001	8/22/17 9:31 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	24.31	0.35	7.05	84.4	0.715	24.4	7.6	
001	8/23/17 9:05 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.04	0.04	0.04	25.13	0.33	6.5	79	0.675	7.4	7.46	
001	8/24/17 9:28 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.04	0.04	24.13	0.34	6.37	76	0.705	5.3	7.43	
001	8/25/17 10:07 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.04	23.2	0.35	7.07	82.9	0.724	0.7	7.54	0.7
001	8/28/17 9:28 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	21.48	0.39	7.8	88.5	0.805	3.2	7.61	
001	9/1/17 8:45 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.07								
001	9/6/17 9:15 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.22	0.22	0.22	21.65	0.42	8.05	91.7	0.856	0.9	8.04	
001	9/18/17 9:28 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	22.41	0.38	7.06	81.5	0.784	11.2	7.29	
001	9/19/17 9:00 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.04	0.04	0.04								
001	9/20/17 8:26 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.27	0.31	0.31	20.43	0.38	6.85	76.1	0.768	2.1	7.32	
001	9/21/17 9:00 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.27	0.31	20.27	0.36	7.03	77.9	0.728		7.31	
001	9/22/17 8:40 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.16	0.16	0.43	18.75	0.37	8.45	90.8	0.758	3.3	7.25	
001	10/24/17 9:50 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.07	0.07	0.07	16.61	0.47	8.78	90.4	0.947	2.1	7.77	
001	10/25/17 9:15 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1.29	1.36	1.36								
001	10/26/17 9:05 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.35	1.64	1.71								
001	10/27/17 9:00 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.35	1.64								
001	10/28/17 8:10 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.35								
001	10/29/17 8:21 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1	1	1								
001	10/30/17 9:26 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.94	1.94	1.94	16.05	0.23	9.14	92.8	0.469		7.24	
001	10/31/17 9:15 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.94	1.94								
001	11/1/17 8:35 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.94								
001	11/2/17 8:55 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	12.7	0.28	9.51	89.8	0.576	13	7.54	
001	11/3/17 8:54 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.01	0.01	13.45	0.29	9.18	88.1	0.588	9.2	7.37	
001	11/4/17 8:15 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.01	0.01								
144	3/27/17 8:54 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.48	0.48	0.56	4.38	0.44	12.43	96	0.893	5.4	7.81	2
144	3/27/17 8:54 AM	B	CHARLES RIVER	UPPER BASIN		0.48	0.48	0.56	4.58	0.48	12.09	93.9	0.983	7.1	7.64	
144	3/28/17 8:34 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.72	1.2	1.2	4.84	0.43	12.46	97.4	0.878	9.1	7.69	1.1
144	3/28/17 8:34 AM	B	CHARLES RIVER	UPPER BASIN		0.72	1.2	1.2	4.98	0.46	12.1	95	0.935	14.1	7.54	
144	3/29/17 9:08 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.06	0.78	1.26	5.27	0.41	12.49	98.7	0.843	10.1	7.55	0.7
144	3/29/17 9:08 AM	B	CHARLES RIVER	UPPER BASIN		0.06	0.78	1.26	5.26	0.41	12.13	95.8	0.833	12.5	7.39	
144	3/30/17 8:44 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.06	0.78	5.32	0.4	12.33	97.6	0.812	2.4	7.66	1.2
144	3/30/17 8:44 AM	B	CHARLES RIVER	UPPER BASIN		0	0.06	0.78	5.29	0.4	12.09	95.6	0.819	3.5	7.49	
144	3/31/17 8:36 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.87	0.87	0.93	6.38	0.4	11.87	96.5	0.805	5.5	7.5	1.3
144	3/31/17 8:36 AM	B	CHARLES RIVER	UPPER BASIN		0.87	0.87	0.93	6.38	0.4	11.82	96.1	0.806	11.1	7.46	
144	5/1/17 9:03 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.01	0.01	15.6	0.33	8.87	89.3	0.667	9.4	7.39	1.1
144	5/1/17 9:03 AM	B	CHARLES RIVER	UPPER BASIN		0	0.01	0.01	15.48	0.35	8.55	85.9	0.722	10	7.28	
144	5/3/17 8:41 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.19	0.19	14.08	0.31	8.99	87.5	0.639	5.9	7.55	1.1
144	5/3/17 8:41 AM	B	CHARLES RIVER	UPPER BASIN		0	0.19	0.19	14.07	0.31	8.9	86.6	0.64	10.7	7.32	
144	6/7/17 9:46 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.04	0.84	1.43	14.95	0.26	8.7	86.3	0.527	8.2	7.3	0.5
144	6/7/17 9:46 AM	B	CHARLES RIVER	UPPER BASIN		0.04	0.84	1.43	14.61	0.26	8.94	88	0.538	11.1	7.23	
144	6/8/17 8:44 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.04	0.84	16.24	0.28	8.41	85.8	0.569	5.3	7.38	0.8
144	6/8/17 8:44 AM	B	CHARLES RIVER	UPPER BASIN		0	0.04	0.84	15.9	0.28	8.68	87.9	0.57	6.4	7.31	
144	6/13/17 9:23 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.53	0.53	0.53	23.97	0.27	7.16	85.2	0.552	3	7.21	1.1
144	6/13/17 9:23 AM	B	CHARLES RIVER	UPPER BASIN		0.53	0.53	0.53	23.22	0.27	7	82.1	0.562	6.6	7.16	
144	6/14/17 9:05 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.53	0.53	24.53	0.27	6.77	81.4	0.556	4.3	7.26	1
144	6/14/17 9:05 AM	B	CHARLES RIVER	UPPER BASIN		0	0.53	0.53	24.08	0.27	5.98	71.3	0.56	6.2	7.19	
144	6/15/17 8:48 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.53	24.53	0.27	6.77	81.4	0.556	4.3	7.26	0.7
144	6/16/17 8:23 AM	S	CHARLES RIVER	UPPER BASIN	0.1	2.13	2.13	2.13	23.19	0.28	6.95	81.5	0.577	4.2	7.34	0.9
144	6/16/17 8:23 AM	B	CHARLES RIVER	UPPER BASIN		2.13	2.13	2.13	22.88	0.28	6.52	76	0.583	6.6	7.25	
144	7/13/17 9:05 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.14	1.47	1.64	23.22	0.22	5.84	68.5	0.457	11.9	7.08	0.5
144	7/13/17 9:05 AM	B	CHARLES RIVER	UPPER BASIN		0.14	1.47	1.64	22.9	0.26	5.85	68.2	0.536	20.7	7	



2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
144	7/17/17 9:14 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	25.01	0.37	7.48	90.8	0.751	3.1	7.32	1
144	7/17/17 9:14 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	24.21	0.37	7.1	84.8	0.757	2.9	7.24	
144	7/18/17 9:11 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.12	0.12	0.12	25.4	0.38	7.66	93.6	0.771	2.4	7.51	1.5
144	7/18/17 9:11 AM	B	CHARLES RIVER	UPPER BASIN		0.12	0.12	0.12	24.75	0.39	6.58	79.4	0.809	7.3	7.39	
144	8/22/17 9:20 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	24.61	0.35	7.09	85.4	0.715	0.9	7.58	1.4
144	8/22/17 9:20 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	24.42	0.36	6.82	81.8	0.738	1.2	7.45	
144	8/23/17 8:52 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.04	0.04	0.04	25.37	0.35	6.87	83.9	0.726	1.4	7.31	1.2
144	8/23/17 8:52 AM	B	CHARLES RIVER	UPPER BASIN		0.04	0.04	0.04	24.78	0.37	5.84	70.6	0.766	7.5	7.18	
144	8/24/17 9:14 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.04	0.04	24.88	0.34	6.26	75.8	0.696	3.4	7.44	1.1
144	8/24/17 9:14 AM	B	CHARLES RIVER	UPPER BASIN		0	0.04	0.04	24.68	0.35	5.94	71.6	0.716	6.2	7.24	
144	8/25/17 9:53 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.04	24.28	0.33	6.13	73.3	0.689	1.1	7.28	1.4
144	8/25/17 9:53 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0.04	23.98	0.34	5.91	70.3	0.692	16.7	7.11	
144	8/28/17 9:12 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	22.5	0.38	8.05	93.2	0.783	2.6	7.58	0.7
144	8/28/17 9:12 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	22.15	0.38	7.9	90.8	0.784	7.7	7.48	
144	9/1/17 9:13 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.07	20.16	0.41	8.49	93.9	0.838	4.3	7.66	1
144	9/1/17 9:13 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0.07	20.09	0.41	8.24	91	0.838	7.5	7.46	
144	9/6/17 9:04 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.22	0.22	0.22	22	0.42	8.99	103	0.853	1.4	8.18	
144	9/6/17 9:04 AM	B	CHARLES RIVER	UPPER BASIN		0.22	0.22	0.22	21.48	0.42	8.52	96.7	0.859	3.4	7.93	
144	9/18/17 9:13 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	23.07	0.37	7.03	82.3	0.752	1.7	7.29	
144	9/18/17 9:13 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	23.05	0.37	6.85	80.1	0.75	11.3	7.08	
144	9/19/17 8:53 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.04	0.04	0.04	21.49	0.39	6.62	75.1	0.805	3.9	7.35	
144	9/19/17 8:53 AM	B	CHARLES RIVER	UPPER BASIN		0.04	0.04	0.04	21.48	0.4	6.47	73.4	0.806	5.5	7.2	
144	10/24/17 9:11 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.07	0.07	0.07	16.58	0.47	9.75	100.2	0.952	5.2	8.22	2
144	10/24/17 9:11 AM	B	CHARLES RIVER	UPPER BASIN		0.07	0.07	0.07	16.46	0.51	8.63	88.6	1.026	8.2	7.9	
144	10/25/17 8:58 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1.29	1.36	1.36	18.43	0.4	8.68	92.7	0.808	5.8	7.84	0.8
144	10/25/17 8:58 AM	B	CHARLES RIVER	UPPER BASIN		1.29	1.36	1.36	18.09	0.45	8.17	86.7	0.911	6.1	7.65	
144	10/26/17 8:58 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.35	1.64	1.71	17.63	0.32	8.53	89.6	0.662	7	7.98	0.6
144	10/26/17 8:58 AM	B	CHARLES RIVER	UPPER BASIN		0.35	1.64	1.71	17.75	0.36	6.78	71.4	0.735	7.5	7.59	
144	10/27/17 9:32 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.35	1.64	15.15	0.33	7.52	75	0.68	5.5	7.64	0.9
144	10/27/17 9:32 AM	B	CHARLES RIVER	UPPER BASIN		0	0.35	1.64	15.15	0.33	7.39	73.7	0.68	8.1	7.55	
144	10/31/17 9:22 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.94	1.94	14.02	0.26	8.81	85.6	0.535	8.2	7.59	0.7
144	10/31/17 9:22 AM	B	CHARLES RIVER	UPPER BASIN		0	0.94	1.94	14.03	0.26	8.92	86.8	0.536	9.7	7.34	
144	11/1/17 9:14 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.94	12.73	0.29	9.03	85.4	0.594	3.8	7.13	1
144	11/1/17 9:14 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0.94	12.71	0.29	9.25	87.4	0.596	10	7.15	
144	11/2/17 8:43 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	12.62	0.27	9.2	86.7	0.559	5.8	7.52	1.2
144	11/2/17 8:43 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	12.73	0.3	9.34	88.2	0.614	16.3	7.39	
144	11/3/17 8:41 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.01	0.01	13.23	0.28	8.87	84.8	0.572	5.4	7.44	1
144	11/3/17 8:41 AM	B	CHARLES RIVER	UPPER BASIN		0.01	0.01	0.01	13.2	0.28	9.22	88	0.576	8.1	7.33	
002	3/23/17 9:12 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0								
002	3/27/17 8:48 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.48	0.48	0.56	4.62	0.45	12.56	97.6	0.909	5.3	7.84	2.2
002	3/27/17 8:48 AM	B	CHARLES RIVER	UPPER BASIN		0.48	0.48	0.56	4.61	0.45	12.43	96.6	0.918	8.4	7.69	
002	3/28/17 8:29 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.72	1.2	1.2	4.92	0.44	12.27	96.1	0.901	10.7	7.69	0.8
002	3/28/17 8:29 AM	B	CHARLES RIVER	UPPER BASIN		0.72	1.2	1.2	4.9	0.44	11.98	93.9	0.902	9.6	7.53	
002	3/29/17 9:02 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.06	0.78	1.26	5.22	0.4	12.39	97.8	0.81	11.1	7.5	0.6
002	3/29/17 9:02 AM	B	CHARLES RIVER	UPPER BASIN		0.06	0.78	1.26	5.22	0.4	12.21	96.4	0.81	18.5	7.43	
002	3/30/17 8:38 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.06	0.78	5.08	0.4	12.18	95.8	0.822	2.7	7.64	1.1
002	3/30/17 8:38 AM	B	CHARLES RIVER	UPPER BASIN		0	0.06	0.78	5.06	0.4	11.94	93.9	0.822	5.4	7.5	
002	3/31/17 8:29 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.87	0.87	0.93	6.28	0.4	11.75	95.3	0.808	5.6	7.42	1.3
002	3/31/17 8:29 AM	B	CHARLES RIVER	UPPER BASIN		0.87	0.87	0.93	6.29	0.4	11.7	94.9	0.809	6.2	7.39	
002	4/26/17 9:22 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.56	1.45	1.45	12.44	0.31	9.78	91.8	0.634		6.94	
002	4/27/17 8:38 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.56	1.45	12.81	0.33	9.87	93.4	0.664		7.27	
002	4/28/17 8:54 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.01	0.57	14.35	0.33	9.64	94.4	0.682		7.3	
002	4/29/17 8:03 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.01	0.01								
002	4/30/17 7:47 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.01	0.02								
002	5/1/17 8:56 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.01	0.01	15.52	0.33	8.63	86.7	0.673	10.1	7.33	1
002	5/1/17 8:56 AM	B	CHARLES RIVER	UPPER BASIN		0	0.01	0.01	15.54	0.33	8.26	83	0.673	10.3	7.27	
002	5/3/17 8:33 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.19	0.19	14.22	0.31	8.88	86.7	0.643	5.8	7.49	0.8

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Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
002	5/3/17 8:33 AM	B	CHARLES RIVER	UPPER BASIN		0	0.19	0.19	14.16	0.32	8.76	85.4	0.644	7.5	7.33	
002	5/5/17 8:34 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.64	0.64	0.64	14.43	0.33	9.68	95	0.676		7.44	
002	5/26/17 9:03 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.55	1.18	1.18	15.2	0.25	8.65	86.2	0.523		7.23	
002	5/27/17 8:10 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.55	1.18								
002	5/28/17 8:23 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.55								
002	5/29/17 8:02 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.05	0.05	0.05								
002	5/30/17 8:30 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.05	0.05								
002	6/6/17 8:19 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.8	1.39	1.57	15.21	0.24	8.81	87.9	0.49	11.6	7.28	
002	6/7/17 9:40 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.04	0.84	1.43	14.67	0.25	8.66	85.4	0.524	8.1	7.28	0.7
002	6/7/17 9:40 AM	B	CHARLES RIVER	UPPER BASIN		0.04	0.84	1.43	14.58	0.26	8.82	86.8	0.524	10.2	7.23	
002	6/8/17 8:37 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.04	0.84	16.04	0.28	8.35	84.8	0.57	5.4	7.36	1
002	6/8/17 8:37 AM	B	CHARLES RIVER	UPPER BASIN		0	0.04	0.84	15.72	0.28	8.53	86	0.569	7.8	7.29	
002	6/9/17 8:50 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.04	16.98	0.28	8.26	85.5	0.584	9.9	7.27	
002	6/13/17 9:15 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.53	0.53	0.53	23.6	0.27	6.91	81.6	0.554	3.4	7.22	0.7
002	6/13/17 9:15 AM	B	CHARLES RIVER	UPPER BASIN		0.53	0.53	0.53	23.22	0.27	6.7	78.6	0.555	18.1	7.12	
002	6/14/17 8:56 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.53	0.53	24.84	0.27	6.73	81.3	0.56	4.7	7.29	0.9
002	6/14/17 8:56 AM	B	CHARLES RIVER	UPPER BASIN		0	0.53	0.53	24.44	0.27	6.32	75.8	0.56	9.1	7.21	
002	6/15/17 8:39 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.53	24.84	0.27	6.73	81.3	0.56	4.7	7.29	1.1
002	6/15/17 8:39 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0.53	24.44	0.27	6.32	75.8	0.56	9.1	7.21	
002	6/16/17 8:18 AM	S	CHARLES RIVER	UPPER BASIN	0.1	2.13	2.13	2.13	23.69	0.28	7.2	85.1	0.587	5.5	7.42	0.7
002	6/16/17 8:18 AM	B	CHARLES RIVER	UPPER BASIN		2.13	2.13	2.13	23.67	0.28	6.45	76.3	0.586	7.2	7.29	
002	7/13/17 8:57 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.14	1.47	1.64	23.87	0.24	5.93	70.4	0.496	12.6	7.13	0.5
002	7/13/17 8:57 AM	B	CHARLES RIVER	UPPER BASIN		0.14	1.47	1.64	23.87	0.24	5.82	69	0.497	14.9	7.03	
002	7/14/17 9:15 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.14	1.47								
002	7/15/17 8:10 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.14								
002	7/16/17 7:27 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0								
002	7/17/17 9:04 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	25.11	0.37	7.99	97.1	0.756	3.1	7.35	1
002	7/17/17 9:04 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	23.75	0.37	6.09	72.2	0.764	2.6	7.16	
002	7/18/17 9:03 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.12	0.12	0.12	25.42	0.38	8.22	100.4	0.777	2.5	7.53	1.4
002	7/18/17 9:03 AM	B	CHARLES RIVER	UPPER BASIN		0.12	0.12	0.12	23.29	0.39	5.88	69.1	0.789	5.1	7.35	
002	8/19/17 9:28 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.25	0.25								
002	8/20/17 8:11 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.01	0.25								
002	8/21/17 9:35 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.01	25	0.35	6.23	75.5	0.719	2.5	7.34	
002	8/22/17 9:10 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	24.68	0.35	6.48	78.1	0.728	0.8	7.5	1.3
002	8/22/17 9:10 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	24.21	0.38	4.48	53.6	0.779		7.26	
002	8/23/17 8:44 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.04	0.04	0.04	25.42	0.35	6.93	84.7	0.724	1.3	7.39	1.5
002	8/23/17 8:44 AM	B	CHARLES RIVER	UPPER BASIN		0.04	0.04	0.04	24.89	0.36	5.88	71.2	0.733	5.7	7.2	
002	8/24/17 9:05 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.04	0.04	24.83	0.36	6.52	78.9	0.745	1.8	7.43	1.1
002	8/24/17 9:05 AM	B	CHARLES RIVER	UPPER BASIN		0	0.04	0.04	24.69	0.36	6.34	76.5	0.746	1.9	7.35	
002	8/25/17 9:42 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.04	24.49	0.35	6.07	72.9	0.724	0.8	7.38	1.1
002	8/25/17 9:42 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0.04	24.28	0.35	5.19	62.1	0.729	4.1	7.09	
002	8/28/17 9:04 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	22.76	0.39	7.9	91.9	0.798	3.2	7.57	0.8
002	8/28/17 9:04 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	22.41	0.4	7.31	84.5	0.818	4.2	7.38	
002	9/1/17 9:06 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.07	20.6	0.41	8.66	96.6	0.832	4.6	7.65	1.1
002	9/1/17 9:06 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0.07	20.49	0.41	8.53	94.9	0.831	7.1	7.49	
002	9/6/17 8:55 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.22	0.22	0.22	21.14	0.43	8.58	96.8	0.869	1.3	8.15	1.3
002	9/6/17 8:55 AM	B	CHARLES RIVER	UPPER BASIN		0.22	0.22	0.22	20.95	0.43	7.36	82.7	0.872	5.7	7.8	
002	9/18/17 9:02 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	22.85	0.35	5.94	69.2	0.713	1.5	7.26	1.2
002	9/18/17 9:02 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	22.77	0.35	5.03	58.4	0.717	2.6	7.08	
002	9/19/17 8:46 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.04	0.04	0.04	22.01	0.4	6.65	76.2	0.81	4	7.27	1.4
002	9/19/17 8:46 AM	B	CHARLES RIVER	UPPER BASIN		0.04	0.04	0.04	22.01	0.4	6.4	73.4	0.812	4.3	7.18	
002	9/20/17 8:17 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.27	0.31	0.31	20.8	0.4	6.34	71	0.814	2.7	7.3	
002	9/21/17 8:52 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.27	0.31	20.4	0.38	7.05	78.3	0.784		7.35	
002	9/22/17 8:31 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.16	0.16	0.43	19.71	0.38	8.27	90.6	0.773	5.4	7.27	
002	10/24/17 9:04 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.07	0.07	0.07	16.36	0.48	9.89	101.2	0.967	4.7	8.2	2.1
002	10/24/17 9:04 AM	B	CHARLES RIVER	UPPER BASIN		0.07	0.07	0.07	16.13	0.49	8.99	91.6	0.988	6.1	8	
002	10/25/17 8:49 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1.29	1.36	1.36	18.15	0.4	8.58	91.1	0.813	15	7.72	0.5

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
002	10/25/17 8:49 AM	B	CHARLES RIVER	UPPER BASIN		1.29	1.36	1.36	16.79	0.48	7.49	77.4	0.972	11.4	7.53	
002	10/26/17 8:53 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.35	1.64	1.71	18.04	0.35	7.2	76.3	0.723	6.7	7.78	0.6
002	10/26/17 8:53 AM	B	CHARLES RIVER	UPPER BASIN		0.35	1.64	1.71	17.95	0.42	6.01	63.5	0.846	7.2	7.55	
002	10/27/17 9:23 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.35	1.64	16.05	0.34	7.15	72.7	0.692	4.8	7.71	0.9
002	10/27/17 9:23 AM	B	CHARLES RIVER	UPPER BASIN		0	0.35	1.64	15.99	0.34	6.68	67.8	0.692	8.2	7.52	
002	10/28/17 8:00 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.35								
002	10/29/17 8:15 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1	1	1								
002	10/30/17 9:18 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.94	1.94	1.94	16.29	0.16	9.19	93.7	0.328		7.33	
002	10/31/17 9:16 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.94	1.94	14.02	0.27	8.82	85.7	0.548	7	7.49	0.8
002	10/31/17 9:16 AM	B	CHARLES RIVER	UPPER BASIN		0	0.94	1.94	14.01	0.27	8.86	86.1	0.547	7.9	7.35	
002	11/1/17 9:07 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.94	12.83	0.3	8.97	85	0.611	3.9	7.13	1
002	11/1/17 9:07 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0.94	12.8	0.3	9.2	87	0.61	9.2	7.13	
002	11/2/17 8:39 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	12.6	0.27	9.35	88.1	0.555	6.1	7.51	1.3
002	11/2/17 8:39 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	12.59	0.27	9.44	88.9	0.555	6.6	7.45	
002	11/3/17 8:32 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.01	0.01	13.21	0.28	9.1	86.9	0.573	4.3	7.37	1
002	11/3/17 8:32 AM	B	CHARLES RIVER	UPPER BASIN		0.01	0.01	0.01	13.18	0.28	9.21	87.9	0.573	4.8	7.32	
002	11/4/17 8:05 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.01	0.01								
003	3/23/17 9:00 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0								
003	3/27/17 8:35 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.48	0.48	0.56	4.47	0.47	12.61	97.7	0.962	6.1	7.89	1.8
003	3/27/17 8:35 AM	B	CHARLES RIVER	UPPER BASIN		0.48	0.48	0.56	4.47	0.47	12.51	96.9	0.959	10.3	7.66	
003	3/28/17 8:18 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.72	1.2	1.2	5.08	0.48	12.19	95.9	0.98	17.3	7.59	0.4
003	3/28/17 8:18 AM	B	CHARLES RIVER	UPPER BASIN		0.72	1.2	1.2	5.04	0.49	12.03	94.6	0.985	22.3	7.48	
003	3/29/17 8:48 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.06	0.78	1.26	5.26	0.41	12.28	97.1	0.836	9.6	7.49	0.6
003	3/29/17 8:48 AM	B	CHARLES RIVER	UPPER BASIN		0.06	0.78	1.26	5.26	0.42	12.01	94.9	0.847	14.3	7.36	
003	3/30/17 8:25 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.06	0.78	5.27	0.41	12.04	95.2	0.827	2.3	7.65	1
003	3/30/17 8:25 AM	B	CHARLES RIVER	UPPER BASIN		0	0.06	0.78	5.24	0.41	11.77	93	0.828	8	7.42	
003	3/31/17 8:15 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.87	0.87	0.93	6.62	0.41	12.03	98.4	0.828	12	7.51	1
003	3/31/17 8:15 AM	B	CHARLES RIVER	UPPER BASIN		0.87	0.87	0.93	6.53	0.41	11.97	97.7	0.825	6.5	7.46	
003	4/26/17 9:12 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.56	1.45	1.45	12.52	0.31	9.55	89.8	0.639	7.07		
003	4/27/17 8:26 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.56	1.45	13.07	0.31	9.68	92.2	0.635		7.25	
003	4/28/17 8:48 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.01	0.57	14.83	0.34	9.4	93.1	0.686		7.26	
003	4/29/17 7:58 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.01	0.01								
003	4/30/17 7:44 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.01	0.02								
003	5/1/17 8:43 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.01	0.01	16.08	0.33	9.32	94.7	0.68	10.3	7.34	0.6
003	5/1/17 8:43 AM	B	CHARLES RIVER	UPPER BASIN		0	0.01	0.01	16.09	0.33	8.29	84.3	0.68	12.1	7.24	
003	5/3/17 8:18 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.19	0.19	14.68	0.32	8.56	84.5	0.655	8.9	7.36	0.9
003	5/3/17 8:18 AM	B	CHARLES RIVER	UPPER BASIN		0	0.19	0.19	14.57	0.32	8.25	81.2	0.655	16.5	7.17	
003	5/5/17 8:25 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.64	0.64	0.64	15.36	0.33	9.78	97.9	0.671		7.44	
003	5/26/17 8:55 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.55	1.18	1.18	15.05	0.3	8.41	83.6	0.606		7.17	
003	5/27/17 7:57 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.55	1.18								
003	5/28/17 8:12 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.55								
003	5/29/17 7:47 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.05	0.05	0.05								
003	5/30/17 8:22 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.05	0.05	15.97	0.33	7.04	71.4	0.673	16.8	7.17	
003	6/6/17 8:11 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.8	1.39	1.57	15.33	0.3	8.53	85.4	0.614	6.6	7.25	
003	6/7/17 9:26 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.04	0.84	1.43	15.31	0.26	8.25	82.5	0.541	7.5	7.29	0.6
003	6/7/17 9:26 AM	B	CHARLES RIVER	UPPER BASIN		0.04	0.84	1.43	14.71	0.26	8.34	82.3	0.536	11.8	7.23	
003	6/8/17 8:25 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.04	0.84	16.48	0.28	8.3	85.1	0.573	5.4	7.37	0.8
003	6/8/17 8:25 AM	B	CHARLES RIVER	UPPER BASIN		0	0.04	0.84	15.96	0.28	8.4	85.1	0.572	8.4	7.27	
003	6/9/17 8:35 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.04	18.2	0.28	8.7	92.5	0.582	10.2	7.34	
003	6/13/17 9:01 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.53	0.53	0.53	24.69	0.28	7.2	86.8	0.571	3.1	7.26	1.1
003	6/13/17 9:01 AM	B	CHARLES RIVER	UPPER BASIN		0.53	0.53	0.53	23.82	0.28	6.73	79.8	0.572	6.8	7.13	
003	6/14/17 8:40 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.53	0.53	25.5	0.28	6.9	84.4	0.576	5	7.3	1
003	6/14/17 8:40 AM	B	CHARLES RIVER	UPPER BASIN		0	0.53	0.53	25.24	0.28	6.41	78	0.578	9.7	7.22	
003	6/15/17 8:23 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.53	25.5	0.28	6.9	84.4	0.576	5	7.3	0.9
003	6/16/17 8:05 AM	S	CHARLES RIVER	UPPER BASIN	0.1	2.13	2.13	2.13	23.86	0.28	6.52	77.4	0.585	5.3	7.26	0.8
003	6/16/17 8:05 AM	B	CHARLES RIVER	UPPER BASIN		2.13	2.13	2.13	23.78	0.28	6.28	74.4	0.585	7.9	7.22	
003	7/13/17 8:41 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.14	1.47	1.64	25	0.36	6.58	79.7	0.73	6.1	7.11	0.6

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Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
003	7/13/17 8:41 AM	B	CHARLES RIVER	UPPER BASIN		0.14	1.47	1.64	24.96	0.35	6.45	78.2	0.726	9.4	7.09	
003	7/14/17 9:00 AM	S	CHARLES RIVER	UPPER BASIN		0	0.14	1.47								
003	7/15/17 8:03 AM	S	CHARLES RIVER	UPPER BASIN		0	0	0.14								
003	7/16/17 7:15 AM	S	CHARLES RIVER	UPPER BASIN		0	0	0								
003	7/17/17 8:48 AM	S	CHARLES RIVER	UPPER BASIN		0	0	0	23.83	0.37	7.17	85	0.758	4.7	7.26	0.9
003	7/17/17 8:48 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	23.33	0.37	6.65	78.1	0.757	3.8	7.17	
003	7/18/17 8:45 AM	S	CHARLES RIVER	UPPER BASIN		0.12	0.12	0.12	25.27	0.38	7.87	95.9	0.78	3	7.5	1
003	7/18/17 8:45 AM	B	CHARLES RIVER	UPPER BASIN		0.12	0.12	0.12	22.1	0.38	5	57.4	0.767	5.4	7.33	
003	8/19/17 9:18 AM	S	CHARLES RIVER	UPPER BASIN		0.01	0.25	0.25								
003	8/20/17 8:06 AM	S	CHARLES RIVER	UPPER BASIN		0	0.01	0.25								
003	8/21/17 9:25 AM	S	CHARLES RIVER	UPPER BASIN		0	0	0.01	25.01	0.33	7.11	86.2	0.685	3.1	7.52	
003	8/22/17 8:56 AM	S	CHARLES RIVER	UPPER BASIN		0	0	0	24.93	0.34	6.51	78.9	0.703	1.4	7.45	0.9
003	8/22/17 8:56 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	24.5	0.33	5.36	64.4	0.686	3.9	7.31	
003	8/23/17 8:31 AM	S	CHARLES RIVER	UPPER BASIN		0.04	0.04	0.04	25.47	0.35	6.64	81.1	0.717	2	7.35	1.2
003	8/23/17 8:31 AM	B	CHARLES RIVER	UPPER BASIN		0.04	0.04	0.04	25.23	0.35	6.38	77.6	0.715	5.2	7.26	
003	8/24/17 8:52 AM	S	CHARLES RIVER	UPPER BASIN		0	0.04	0.04	25.13	0.36	7.19	87.4	0.736	2.2	7.43	0.9
003	8/24/17 8:52 AM	B	CHARLES RIVER	UPPER BASIN		0	0.04	0.04	24.87	0.36	6.63	80.1	0.736	4.4	7.33	
003	8/25/17 9:23 AM	S	CHARLES RIVER	UPPER BASIN		0	0	0.04	24.7	0.36	7.01	84.6	0.738	2	7.52	1
003	8/25/17 9:23 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0.04	24.59	0.36	6.64	79.9	0.737	7.4	7.16	
003	8/28/17 8:46 AM	S	CHARLES RIVER	UPPER BASIN		0	0	0	23.29	0.36	8.13	95.5	0.745	4	7.59	0.7
003	8/28/17 8:46 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	22.96	0.36	7.34	85.7	0.746	7.6	7.43	
003	9/1/17 8:51 AM	S	CHARLES RIVER	UPPER BASIN		0	0	0.07	21.14	0.39	8.47	95.5	0.803	6	7.69	0.7
003	9/1/17 8:51 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0.07	21.14	0.39	8.38	94.5	0.802	7.8	7.48	
003	9/6/17 8:40 AM	S	CHARLES RIVER	UPPER BASIN		0.22	0.22	0.22	22.01	0.42	9.17	105.1	0.859	2	8.16	1.2
003	9/6/17 8:40 AM	B	CHARLES RIVER	UPPER BASIN		0.22	0.22	0.22	21.15	0.43	8.15	91.9	0.87	4.2	7.86	
003	9/18/17 8:47 AM	S	CHARLES RIVER	UPPER BASIN		0	0	0	22.86	0.35	5.98	69.6	0.718	2	7.28	1.7
003	9/18/17 8:47 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	22.67	0.36	4.82	56	0.74	10.6	7.12	
003	9/19/17 8:33 AM	S	CHARLES RIVER	UPPER BASIN		0.04	0.04	0.04	22.17	0.37	5.61	64.5	0.755	4.2	7.4	1.2
003	9/19/17 8:33 AM	B	CHARLES RIVER	UPPER BASIN		0.04	0.04	0.04	22.15	0.37	5.16	59.3	0.751	4.9	7.22	
003	9/20/17 8:08 AM	S	CHARLES RIVER	UPPER BASIN		0.27	0.31	0.31	20.37	0.38	7.33	81.3	0.776	4.6	7.38	
003	9/21/17 8:42 AM	S	CHARLES RIVER	UPPER BASIN		0	0.27	0.31	20.17	0.39	8.07	89.3	0.803	7.49		
003	9/22/17 8:21 AM	S	CHARLES RIVER	UPPER BASIN		0.16	0.16	0.43	18.68	0.4	8.07	86.6	0.814	5	7.29	
003	10/24/17 8:48 AM	S	CHARLES RIVER	UPPER BASIN		0.07	0.07	0.07	16.82	0.51	9.84	101.7	1.027	5.2	8.19	1.5
003	10/24/17 8:48 AM	B	CHARLES RIVER	UPPER BASIN		0.07	0.07	0.07	16.49	0.5	9.38	96.3	0.999	8.4	7.94	
003	10/25/17 8:37 AM	S	CHARLES RIVER	UPPER BASIN		1.29	1.36	1.36	17.46	0.49	8.89	93.2	0.982	3.6	7.66	1.3
003	10/25/17 8:37 AM	B	CHARLES RIVER	UPPER BASIN		1.29	1.36	1.36	17.4	0.49	8.69	91	0.987	11.5	7.61	
003	10/26/17 8:40 AM	S	CHARLES RIVER	UPPER BASIN		0.35	1.64	1.71	17.6	0.44	7.57	79.6	0.892	6.3	7.55	0.9
003	10/26/17 8:40 AM	B	CHARLES RIVER	UPPER BASIN		0.35	1.64	1.71	17.6	0.44	7.41	77.8	0.892	9.1	7.5	
003	10/27/17 9:09 AM	S	CHARLES RIVER	UPPER BASIN		0	0.35	1.64	16.57	0.36	6.67	68.5	0.741	5.3	7.68	1
003	10/27/17 9:09 AM	B	CHARLES RIVER	UPPER BASIN		0	0.35	1.64	16.47	0.36	6.09	62.5	0.74	7.8	7.52	
003	10/28/17 7:54 AM	S	CHARLES RIVER	UPPER BASIN		0	0	0.35								
003	10/29/17 8:05 AM	S	CHARLES RIVER	UPPER BASIN		1	1	1								
003	10/30/17 9:09 AM	S	CHARLES RIVER	UPPER BASIN		0.94	1.94	1.94	16.22	0.18	8.98	91.5	0.367		7.41	
003	10/31/17 9:04 AM	S	CHARLES RIVER	UPPER BASIN		0	0.94	1.94	13.95	0.29	8.46	82.1	0.59	6.3	7.59	0.8
003	10/31/17 9:04 AM	B	CHARLES RIVER	UPPER BASIN		0	0.94	1.94	13.97	0.29	8.46	82.2	0.59	6.6	7.45	
003	11/1/17 8:52 AM	S	CHARLES RIVER	UPPER BASIN		0	0	0.94	13.15	0.29	8.78	83.8	0.599	4.2	7.12	1
003	11/1/17 8:52 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0.94	13.15	0.29	8.94	85.3	0.599	9.5	7.15	
003	11/2/17 8:26 AM	S	CHARLES RIVER	UPPER BASIN		0	0	0	12.98	0.28	9.34	88.7	0.566	6.1	7.42	1
003	11/2/17 8:26 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	12.96	0.28	9.33	88.7	0.566	6.3	7.39	
003	11/3/17 8:17 AM	S	CHARLES RIVER	UPPER BASIN		0.01	0.01	0.01	13.74	0.28	9.06	87.6	0.575	4.6	7.37	1
003	11/3/17 8:17 AM	B	CHARLES RIVER	UPPER BASIN		0.01	0.01	0.01	13.68	0.28	9.28	89.6	0.575	9.7	7.3	
003	11/4/17 7:55 AM	S	CHARLES RIVER	UPPER BASIN		0	0.01	0.01								
004	3/23/17 9:10 AM	S	CHARLES RIVER	UPPER BASIN		0	0	0	4.54	0.52	12.56	97.5	1.048	7	7.75	1.6
004	3/23/17 9:10 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	4.45	0.52	12.4	96	1.044	8.2	7.67	
004	3/27/17 8:21 AM	S	CHARLES RIVER	UPPER BASIN		0.48	0.48	0.56	4.72	0.49	12.49	97.4	0.992	6.2	7.79	1.4
004	3/27/17 8:21 AM	B	CHARLES RIVER	UPPER BASIN		0.48	0.48	0.56	4.71	0.49	12.43	96.9	0.992	8.3	7.64	
004	3/28/17 8:06 AM	S	CHARLES RIVER	UPPER BASIN		0.72	1.2	1.2	4.82	0.5	12.34	96.5	1.008	10	7.56	0.9

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
004	3/28/17 8:06 AM	B	CHARLES RIVER	UPPER BASIN		0.72	1.2	1.2	4.8	0.5	12.05	94.2	1.009	12.1	7.45	
004	3/29/17 8:36 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.06	0.78	1.26	5.39	0.44	12.64	100.3	0.89	7.6	7.53	1
004	3/29/17 8:36 AM	B	CHARLES RIVER	UPPER BASIN		0.06	0.78	1.26	5.38	0.44	12.49	99	0.891	7.9	7.44	
004	3/30/17 8:12 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.06	0.78	5.51	0.41	12.36	98.3	0.839	4.4	7.74	1.1
004	3/30/17 8:12 AM	B	CHARLES RIVER	UPPER BASIN		0	0.06	0.78	5.5	0.41	11.99	95.3	0.837	5.2	7.44	
004	3/31/17 8:01 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.87	0.87	0.93	6.84	0.42	12.29	101.1	0.848	6.4	7.56	1.1
004	3/31/17 8:01 AM	B	CHARLES RIVER	UPPER BASIN		0.87	0.87	0.93	6.72	0.42	12.24	100.4	0.849	10.1	7.47	
004	5/1/17 8:30 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.01	0.01	16.25	0.34	8.51	86.8	0.689	10.9	7.35	0.6
004	5/1/17 8:30 AM	B	CHARLES RIVER	UPPER BASIN		0	0.01	0.01	16.24	0.34	7.89	80.5	0.691	10.5	7.22	
004	5/3/17 8:03 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.19	0.19	14.61	0.33	8.6	84.7	0.665	6.4	7.48	0.9
004	5/3/17 8:03 AM	B	CHARLES RIVER	UPPER BASIN		0	0.19	0.19	14.32	0.33	8.1	79.3	0.664	10.7	7.24	
004	6/7/17 9:13 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.04	0.84	1.43	15.24	0.26	8.01	80	0.542	8.6	7.3	0.6
004	6/7/17 9:13 AM	B	CHARLES RIVER	UPPER BASIN		0.04	0.84	1.43	14.91	0.26	7.89	78.2	0.54	16.6	7.2	
004	6/8/17 8:12 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.04	0.84	16.75	0.27	8.14	83.9	0.555	5.7	7.35	0.6
004	6/8/17 8:12 AM	B	CHARLES RIVER	UPPER BASIN		0	0.04	0.84	16.07	0.27	8.24	83.7	0.55	8.6	7.25	
004	6/13/17 8:45 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.53	0.53	0.53	24.06	0.28	6.94	82.6	0.571	2.7	7.18	0.7
004	6/13/17 8:45 AM	B	CHARLES RIVER	UPPER BASIN		0.53	0.53	0.53	22.7	0.28	6.16	71.5	0.575	15.6	7.06	
004	6/14/17 8:27 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.53	0.53	24.61	0.28	6.74	81.1	0.574	4	7.29	1
004	6/14/17 8:27 AM	B	CHARLES RIVER	UPPER BASIN		0	0.53	0.53	24.1	0.28	5.84	69.6	0.582	6.9	7.19	
004	6/15/17 8:10 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.53	24.61	0.28	6.74	81.1	0.574	4	7.29	1
004	6/15/17 8:10 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0.53	24.1	0.28	5.84	69.6	0.582	6.9	7.19	
004	6/16/17 7:53 AM	S	CHARLES RIVER	UPPER BASIN	0.1	2.13	2.13	2.13	24.18	0.28	6.6	78.8	0.585	4.9	7.35	0.8
004	6/16/17 7:53 AM	B	CHARLES RIVER	UPPER BASIN		2.13	2.13	2.13	24.08	0.28	6.09	72.6	0.585	9.6	7.26	
004	7/13/17 8:27 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.14	1.47	1.64	24.87	0.37	5.94	71.8	0.757	9.7	7.1	0.5
004	7/13/17 8:27 AM	B	CHARLES RIVER	UPPER BASIN		0.14	1.47	1.64	24.88	0.37	5.92	71.6	0.758	12.3	7.07	
004	7/14/17 8:37 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.14	1.47	23.56	0.36	5.77	68.1	0.743	6.4	7.34	1
004	7/14/17 8:37 AM	B	CHARLES RIVER	UPPER BASIN		0	0.14	1.47	23.56	0.36	5.54	65.3	0.743	7.5	7.24	
004	7/17/17 8:29 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	24.19	0.34	7.04	84.1	0.695	5.7	7.28	1
004	7/17/17 8:29 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	23.23	0.33	6.12	71.8	0.689	4	7.1	
004	7/18/17 8:29 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.12	0.12	0.12	25.8	0.37	9.29	114.3	0.757	6.2	7.58	0.9
004	7/18/17 8:29 AM	B	CHARLES RIVER	UPPER BASIN		0.12	0.12	0.12	23.86	0.38	5.51	65.4	0.771	7.8	7.41	
004	8/22/17 8:42 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	25.29	0.32	8.24	100.5	0.661	1.9	7.64	0.9
004	8/22/17 8:42 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	24.18	0.45	4.62	55.2	0.925	4.6	7.38	
004	8/23/17 8:20 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.04	0.04	0.04	25.72	0.33	8.14	100	0.676	2.9	7.55	0.7
004	8/23/17 8:20 AM	B	CHARLES RIVER	UPPER BASIN		0.04	0.04	0.04	24.24	0.48	3.42	41	0.977	4.9	7.17	
004	8/24/17 8:40 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.04	0.04	24.92	0.37	7.98	96.6	0.768	3.2	7.41	0.9
004	8/24/17 8:40 AM	B	CHARLES RIVER	UPPER BASIN		0	0.04	0.04	24.14	0.63	2.77	33.2	1.266	4.8	7.15	
004	8/25/17 9:02 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.04	24.35	0.4	6.92	82.9	0.826	2.4	7.4	0.9
004	8/25/17 9:02 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0.04	24.3	0.49	4.07	48.8	0.994	4.4	7.12	
004	8/28/17 8:29 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	23.22	0.39	6.76	79.3	0.803	6	7.54	0.7
004	8/28/17 8:29 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	23.04	0.39	6.07	70.9	0.799	10.4	7.36	
004	9/1/17 8:38 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.07	21.3	0.38	7.76	87.7	0.782	4.7	7.67	1
004	9/1/17 8:38 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0.07	21.27	0.38	6.56	74.1	0.78	5.9	7.4	
004	9/6/17 8:26 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.22	0.22	0.22	21.43	0.4	7.9	89.6	0.824	3.1	8.07	1
004	9/6/17 8:26 AM	B	CHARLES RIVER	UPPER BASIN		0.22	0.22	0.22	20.18	0.83	6.59	73	1.641	9.2	7.74	
004	9/18/17 8:32 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	22.53	0.44	7.09	82.1	0.895	2.7	7.3	0.6
004	9/18/17 8:32 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	21.85	0.57	3.48	39.9	1.146	11.5	7.03	
004	9/19/17 8:17 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.04	0.04	0.04	22.22	0.4	5.91	68	0.82	4.5	7.43	1
004	9/19/17 8:17 AM	B	CHARLES RIVER	UPPER BASIN		0.04	0.04	0.04	22.14	0.47	4.32	49.7	0.954	7.6	7.2	
004	10/24/17 8:36 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.07	0.07	0.07	16.98	0.73	9.62	99.9	1.452	5.3	8.07	1
004	10/24/17 8:36 AM	B	CHARLES RIVER	UPPER BASIN		0.07	0.07	0.07	16.53	1.18	6.36	65.7	2.279	9.6	7.71	
004	10/25/17 8:24 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1.29	1.36	1.36	17.82	0.56	8.97	94.7	1.114	4	7.7	1.2
004	10/25/17 8:24 AM	B	CHARLES RIVER	UPPER BASIN		1.29	1.36	1.36	17.72	0.6	8.5	89.6	1.193	9.7	7.6	
004	10/26/17 8:27 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.35	1.64	1.71	17.52	0.5	8.48	88.9	0.998	5.5	7.63	1.1
004	10/26/17 8:27 AM	B	CHARLES RIVER	UPPER BASIN		0.35	1.64	1.71	17.53	0.5	7.87	82.6	1	6.2	7.47	
004	10/27/17 8:57 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.35	1.64	16.2	0.44	7.47	76.2	0.894	5.6	7.54	1.1
004	10/27/17 8:57 AM	B	CHARLES RIVER	UPPER BASIN		0	0.35	1.64	16.17	0.44	7.16	73	0.897	8.3	7.41	

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
004	10/31/17 8:51 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.94	1.94	14.15	0.29	8.44	82.3	0.601	6.4	7.46	0.5
004	10/31/17 8:51 AM	B	CHARLES RIVER	UPPER BASIN		0	0.94	1.94	14.14	0.29	8.36	81.5	0.6	6.4	7.36	
004	11/1/17 8:35 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.94	13.57	0.27	8.66	83.4	0.554	5.3	7.2	0.9
004	11/1/17 8:35 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0.94	13.58	0.27	8.66	83.4	0.554	9.6	7.16	
004	11/2/17 8:15 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	12.85	0.3	8.76	83	0.609	6.1	7.48	1
004	11/2/17 8:15 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	12.84	0.3	8.8	83.4	0.609	7.8	7.37	
004	11/3/17 8:03 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.01	0.01	13.36	0.28	8.8	84.4	0.565	4.3	7.41	1
004	11/3/17 8:03 AM	B	CHARLES RIVER	UPPER BASIN		0.01	0.01	0.01	13.28	0.28	9.01	86.1	0.565	6.1	7.33	
005	1/3/17 10:19 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.89	0.89	0.96	2.7	0.67	12.24	90.6	1.36	9.7	7.5	
005	1/18/17 10:52 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.36	0.66	0.66	2.37	0.48	13.56	99.3	0.972	3.7	7.36	
005	1/30/17 10:20 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	1.87	0.37	13.26	95.8	0.76	5	7.63	
005	2/28/17 10:01 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	7.45	0.44	11.83	98.9	0.901	5	7.39	
005	3/23/17 9:02 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	4.21	0.54	12.59	97	1.083	7.1	7.73	1.5
005	3/23/17 9:02 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	4.21	0.54	12.41	95.5	1.086	8.5	7.65	
005	3/27/17 8:11 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.48	0.48	0.56	4.75	0.49	12.5	97.6	1.002	6.5	7.85	1.4
005	3/27/17 8:11 AM	B	CHARLES RIVER	UPPER BASIN		0.48	0.48	0.56	4.78	0.49	12.23	95.6	1	7.4	7.69	
005	3/28/17 7:59 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.72	1.2	1.2	4.8	0.49	12.47	97.5	0.989	9.5	7.53	1.3
005	3/28/17 7:59 AM	B	CHARLES RIVER	UPPER BASIN		0.72	1.2	1.2	4.83	0.49	12.35	96.6	0.986	10.4	7.48	
005	3/29/17 8:27 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.06	0.78	1.26	5.17	0.45	12.17	96	0.907	8.7	7.45	0.5
005	3/29/17 8:27 AM	B	CHARLES RIVER	UPPER BASIN		0.06	0.78	1.26	5.18	0.45	11.86	93.6	0.915	9.6	7.33	
005	3/29/17 9:53 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.06	0.78	1.26	5.48	0.49	12.16	96.7	0.991	15.3	7.88	0.5
005	3/30/17 7:55 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.06	0.78	5.18	0.4	12.14	95.8	0.814	3.8	7.67	0.8
005	3/30/17 7:55 AM	B	CHARLES RIVER	UPPER BASIN		0	0.06	0.78	5.17	0.4	11.61	91.5	0.815	13.3	7.44	
005	3/31/17 7:38 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.87	0.87	0.93	6.09	0.42	12.04	97.2	0.849	6.1	7.53	0.9
005	3/31/17 7:38 AM	B	CHARLES RIVER	UPPER BASIN		0.87	0.87	0.93	6.12	0.42	11.91	96.2	0.848	7.6	7.46	
005	4/14/17 8:44 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.02	12.48	0.28	11.48	107.9	0.577		7.51	
005	4/25/17 9:19 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.89	0.89	0.89	13.69	0.36	10.43	100.7	0.735		7.47	
005	4/26/17 8:32 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.56	1.45	1.45	12.99	0.22	8.92	84.7	0.463		7.17	
005	4/27/17 8:01 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.56	1.45	12.8	0.29	9.9	93.7	0.592		7.3	
005	4/28/17 8:07 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.01	0.57	14.58	0.33	9.49	93.4	0.674		7.32	
005	4/29/17 7:37 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.01	0.01								
005	4/30/17 7:31 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.01	0.02								
005	5/1/17 8:08 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.01	0.01	16.19	0.34	8	81.5	0.691	10.8	7.29	0.7
005	5/1/17 8:08 AM	B	CHARLES RIVER	UPPER BASIN		0	0.01	0.01	16.19	0.34	7.64	77.9	0.691	10.6	7.2	
005	5/3/17 7:56 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.19	0.19	14.65	0.33	8.54	84.2	0.674	6.7	7.41	1
005	5/3/17 7:56 AM	B	CHARLES RIVER	UPPER BASIN		0	0.19	0.19	14.65	0.33	8.23	81.1	0.673	9.1	7.29	
005	5/5/17 7:47 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.64	0.64	0.64	14.32	0.32	9.69	94.8	0.662		7.44	
005	5/11/17 9:41 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	14.34	0.34	10.28	100.7	0.684		7.54	
005	5/22/17 9:16 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.12	0.12	0.12	19.39	0.29	7.68	83.6	0.604		7.41	
005	5/26/17 8:17 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.55	1.18	1.18	16.12	0.21	8.61	87.6	0.438		7.2	
005	5/27/17 7:31 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.55	1.18								
005	5/28/17 7:20 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.55								
005	5/29/17 7:18 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.05	0.05	0.05								
005	5/30/17 7:59 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.05	0.05	16.57	0.22	6.8	69.8	0.452	2	7.12	
005	6/5/17 8:51 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.59	0.77	0.77	17.78	0.33	6.66	70.2	0.68	8.9	7.32	
005	6/6/17 7:38 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.8	1.39	1.57	16.54	0.33	7.31	75	0.674	6.3	7.25	
005	6/7/17 9:06 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.04	0.84	1.43	14.92	0.25	7.61	75.5	0.518	23.3	7.36	0.5
005	6/7/17 9:06 AM	B	CHARLES RIVER	UPPER BASIN		0.04	0.84	1.43	14.82	0.25	7.56	74.8	0.518	17.8	7.25	
005	6/8/17 8:04 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.84	0.84	16.01	0.26	7.93	80.4	0.538	5.8	7.35	0.6
005	6/8/17 8:04 AM	B	CHARLES RIVER	UPPER BASIN		0	0.84	0.84	15.8	0.26	7.84	79.2	0.538	8.7	7.3	
005	6/9/17 7:52 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.04	17	0.27	7.39	76.6	0.561	10.9	7.23	
005	6/13/17 8:17 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.53	0.53	0.53	23.71	0.28	7.04	83.3	0.574	2.7	7.26	0.9
005	6/13/17 8:17 AM	B	CHARLES RIVER	UPPER BASIN		0.53	0.53	0.53	22.55	0.28	6.37	73.7	0.579	15.6	7.05	
005	6/14/17 8:15 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.53	0.53	24.2	0.28	6.98	83.4	0.587	8.3	7.34	1
005	6/14/17 8:15 AM	B	CHARLES RIVER	UPPER BASIN		0	0.53	0.53	23.93	0.28	6.11	72.6	0.59	4.6	7.25	
005	6/15/17 7:58 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.53	24.2	0.28	6.98	83.4	0.587	8.3	7.34	
005	6/15/17 7:58 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0.53	23.93	0.28	6.11	72.6	0.59	4.6	7.25	

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Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
005	6/16/17 7:45 AM	S	CHARLES RIVER	UPPER BASIN	0.1	2.13	2.13	2.13	24.25	0.28	6.88	82.2	0.585	5.6	7.38	0.5
005	6/16/17 7:45 AM	B	CHARLES RIVER	UPPER BASIN		2.13	2.13	2.13	24.24	0.28	6.45	77.1	0.585	8	7.3	
005	6/19/17 9:16 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.03	0.03	0.05	23.6	0.27	6.93	81.8	0.551	12.7	7.31	
005	7/7/17 8:31 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.3	0.3	0.3	24.93	0.36	8.57	103.8	0.748	5.1	7.86	
005	7/13/17 8:19 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.14	1.47	1.64	25.01	0.37	6.22	75.4	0.757	11.8	7.11	0.5
005	7/13/17 8:19 AM	B	CHARLES RIVER	UPPER BASIN		0.14	1.47	1.64	24.96	0.37	6.13	74.3	0.758	9.6	7.12	
005	7/14/17 8:28 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.14	1.47	23.24	0.36	5.45	64	0.737	6.1	7.41	0.6
005	7/14/17 8:28 AM	B	CHARLES RIVER	UPPER BASIN		0	0.14	1.47	23.24	0.36	4.98	58.4	0.735	27.1	7.22	
005	7/15/17 6:54 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.14								
005	7/16/17 6:52 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0								
005	7/17/17 8:18 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	24.16	0.29	7.43	88.7	0.605	11.3	7.32	0.8
005	7/17/17 8:18 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	23.53	0.29	6.44	76	0.608	6.1	7.11	
005	7/18/17 8:21 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.12	0.12	0.12	24.91	0.34	8.95	108.3	0.705	5	7.55	0.7
005	7/18/17 8:21 AM	B	CHARLES RIVER	UPPER BASIN		0.12	0.12	0.12	24.33	0.34	7.86	94.1	0.703	6.8	7.48	
005	7/21/17 9:40 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	26.74	0.2	7.67	95.9	0.423	7.8	7.66	
005	8/1/17 9:18 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	24.44	0.37	9.34	112.1	0.755	4.4	7.82	
005	8/14/17 9:03 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.1	24.61	0.27	7.05	84.8	0.564	3.3	8.05	
005	8/19/17 8:58 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.25	0.25								
005	8/20/17 7:36 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.01	0.25								
005	8/21/17 8:47 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.01	24.17	0.34	7.43	88.7	0.691	3.6	7.45	
005	8/22/17 8:34 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	24.99	0.33	8.21	99.5	0.673	1.2	7.58	0.9
005	8/22/17 8:34 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	24.85	0.33	7.91	95.7	0.672	5.1	7.52	
005	8/23/17 8:12 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.04	0.04	0.04	25.5	0.34	7.9	96.6	0.694	2.3	7.39	0.9
005	8/23/17 8:12 AM	B	CHARLES RIVER	UPPER BASIN		0.04	0.04	0.04	25.33	0.35	7.24	88.3	0.724	3.4	7.3	
005	8/24/17 8:32 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.04	0.04	24.74	0.39	7.91	95.5	0.796	3.1	7.45	0.8
005	8/24/17 8:32 AM	B	CHARLES RIVER	UPPER BASIN		0	0.04	0.04	24.66	0.39	7.69	92.7	0.797	4.5	7.37	
005	8/25/17 8:51 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.04	23.98	0.41	7.05	83.9	0.839	3.1	7.42	1
005	8/25/17 8:51 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0.04	23.81	0.41	6.99	82.9	0.831	4.7	7.28	
005	8/28/17 8:21 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	23.26	0.43	7.02	82.4	0.869	4.9	7.57	0.8
005	8/28/17 8:21 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0	23.05	0.43	6.33	74	0.875	8.1	7.43	
005	8/30/17 9:42 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.07	0.07	0.07	22.04	0.41	7.46	85.6	0.842		7.64	
005	9/1/17 8:30 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.07	20.9	0.41	7.75	86.9	0.841	4.5	7.64	1
005	9/1/17 8:30 AM	B	CHARLES RIVER	UPPER BASIN		0	0	0.07	20.95	0.42	6.71	75.4	0.857	5.4	7.45	
005	9/6/17 8:16 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.22	0.22	0.22	21.42	0.44	7.62	86.3	0.888	5.2	7.87	0.8
005	9/6/17 8:16 AM	B	CHARLES RIVER	UPPER BASIN		0.22	0.22	0.22	21.37	0.44	7.52	85.1	0.892	7	7.76	
005	9/12/17 9:32 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	20.06	0.41	8.45	93.3	0.838	4	8.18	
005	9/18/17 8:23 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	22.65	0.48	8.28	96.1	0.97	4.1	7.31	0.7
005	9/19/17 8:10 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.04	0.04	0.04	22.09	0.45	5.91	67.9	0.915	5	7.37	
005	9/20/17 7:30 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.27	0.31	0.31	20.73	0.43	6.81	76.2	0.877	7.7	7.29	
005	9/21/17 7:59 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.27	0.31	20.73	0.42	7.56	84.5	0.86		7.42	
005	9/22/17 7:41 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.16	0.16	0.43	19.49	0.41	8.21	89.5	0.833	6.6	7.1	
005	9/26/17 9:22 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	22.23	0.41	8.59	98.9	0.826		7.67	
005	10/13/17 10:04 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.01	17.84	0.66	8.53	90.1	1.314	8.2	7.69	
005	10/24/17 8:28 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.07	0.07	0.07	17.01	0.81	9.87	102.6	1.597	8.1	7.99	0.9
005	10/24/17 8:28 AM	B	CHARLES RIVER	UPPER BASIN		0.07	0.07	0.07	16.99	0.81	9.53	99	1.597	7.1	7.87	
005	10/24/17 9:27 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.07	0.07	0.07	17.43	0.76	8.97	94.1	1.512	4.3	7.86	
005	10/25/17 8:16 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1.29	1.36	1.36	18.06	0.68	8.52	90.4	1.35	26.6	7.68	0.9
005	10/25/17 8:16 AM	B	CHARLES RIVER	UPPER BASIN		1.29	1.36	1.36	18.05	0.68	8.16	86.6	1.346	15.1	7.6	
005	10/26/17 8:19 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.35	1.64	1.71	17.49	0.54	8.57	89.9	1.074	5.7	7.69	0.9
005	10/26/17 8:19 AM	B	CHARLES RIVER	UPPER BASIN		0.35	1.64	1.71	17.53	0.53	7.7	80.8	1.073	8.3	7.5	
005	10/27/17 8:48 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.35	1.64	16.09	0.49	7.52	76.5	0.979	7.3	7.54	
005	10/27/17 8:48 AM	B	CHARLES RIVER	UPPER BASIN		0	0.35	1.64	16.08	0.49	7.32	74.5	0.98	10.6	7.42	
005	10/28/17 7:13 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.35								
005	10/29/17 7:28 AM	S	CHARLES RIVER	UPPER BASIN	0.1	1	1	1								
005	10/30/17 8:30 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.94	1.94	1.94	15.87	0.37	8.67	87.8	0.743		7.23	
005	10/31/17 8:45 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.94	1.94	14.31	0.25	8.18	80	0.507	8.5	7.49	0.5
005	10/31/17 8:45 AM	B	CHARLES RIVER	UPPER BASIN		0	0.94	1.94	14.17	0.23	8.02	78.2	0.47	8.8	7.4	

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
005	11/1/17 8:27 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0.94	13.2	0.27	8.55	81.6	0.558	5.2	7.24	0.5
005	11/2/17 8:09 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	13.18	0.29	8.33	79.5	0.595	6.5	7.42	
005	11/3/17 7:58 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.01	0.01	0.01	13.69	0.28	8.71	84.1	0.579	5.6	7.37	
005	11/4/17 7:25 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.01	0.01								
005	11/6/17 10:29 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0.08	0.08	0.08	14.65	0.3	9.08	89.5	0.605		7.38	
005	11/20/17 10:28 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0.23	0.32	5.27	0.33	12.1	95.6	0.68	2.3	7.55	
005	12/4/17 10:42 AM	S	CHARLES RIVER	UPPER BASIN	0.1	0	0	0	4.64	0.31	12.48	97	0.638	6.9	7.38	
006	3/23/17 8:54 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	3.93	0.65	12.43	95.1	1.303	7.8	7.67	1.5
006	3/23/17 8:54 AM	B	CHARLES RIVER	MID-BASIN	0	0	0	0	3.55	0.97	12.37	93.8	1.912	7.4	7.56	
006	3/27/17 8:05 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.48	0.48	0.56	4.6	0.5	12.53	97.4	1.004	6.4	7.86	1.6
006	3/27/17 8:05 AM	B	CHARLES RIVER	MID-BASIN	0	0.48	0.48	0.56	4.59	0.5	12.42	96.5	1.014	5.5	7.7	
006	3/28/17 7:53 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.72	1.2	1.2	4.73	0.5	12.25	95.5	1.021	9.6	7.51	1.1
006	3/28/17 7:53 AM	B	CHARLES RIVER	MID-BASIN	0	0.72	1.2	1.2	4.71	0.51	12.09	94.3	1.041	10.5	7.44	
006	3/29/17 8:20 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.06	0.78	1.26	5.21	0.46	12.3	97.1	0.939	11.8	7.49	0.6
006	3/29/17 8:20 AM	B	CHARLES RIVER	MID-BASIN	0	0.06	0.78	1.26	5.2	0.47	11.99	94.7	0.953	11.4	7.38	
006	3/30/17 7:47 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	0.78	5.16	0.4	11.78	92.9	0.822	3.1	7.56	0.8
006	3/30/17 7:47 AM	B	CHARLES RIVER	MID-BASIN	0	0	0.06	0.78	5.1	0.4	11.41	89.8	0.822	4	7.38	
006	3/31/17 7:32 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.87	0.87	0.93	6.06	0.42	11.99	96.8	0.853	6.6	7.46	1.1
006	3/31/17 7:32 AM	B	CHARLES RIVER	MID-BASIN	0	0.87	0.87	0.93	6.06	0.42	11.87	95.7	0.854	30.4	7.41	
006	5/1/17 8:01 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.01	0.01	16.44	0.34	8.09	82.9	0.693	10.4	7.3	0.7
006	5/1/17 8:01 AM	B	CHARLES RIVER	MID-BASIN	0	0	0.01	0.01	15.56	0.38	7.92	79.6	0.781	8.5	7.21	
006	5/3/17 7:49 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.19	0.19	14.77	0.33	8.44	83.5	0.681	7.3	7.46	1.1
006	5/3/17 7:49 AM	B	CHARLES RIVER	MID-BASIN	0	0	0.19	0.19	14.73	0.33	8	79	0.681	8.7	7.29	
006	6/7/17 9:00 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.04	0.84	1.43	15.38	0.25	7.55	75.6	0.519	8	7.42	0.6
006	6/7/17 9:00 AM	B	CHARLES RIVER	MID-BASIN	0	0.04	0.84	1.43	14.82	0.25	7.56	74.8	0.521	10	7.31	
006	6/8/17 7:56 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.04	0.84	16.12	0.26	7.82	79.6	0.541	6.2	7.43	0.6
006	6/8/17 7:56 AM	B	CHARLES RIVER	MID-BASIN	0	0	0.04	0.84	15.78	0.26	7.87	79.5	0.539	9.4	7.32	
006	6/13/17 8:08 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.53	0.53	0.53	23.15	0.28	6.95	81.4	0.582	2.8	7.28	0.9
006	6/13/17 8:08 AM	B	CHARLES RIVER	MID-BASIN	0	0.53	0.53	0.53	19.65	0.34	5.69	62.3	0.704	10.4	7.07	
006	6/14/17 8:03 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.53	0.53	24.03	0.29	6.71	79.8	0.595	3.7	7.31	0.7
006	6/14/17 8:03 AM	B	CHARLES RIVER	MID-BASIN	0	0	0.53	0.53	22.04	0.33	6.31	72.4	0.678	4.3	7.23	
006	6/15/17 7:52 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.53	24.03	0.29	6.71	79.8	0.595	3.7	7.31	0.7
006	6/15/17 7:52 AM	B	CHARLES RIVER	MID-BASIN	0	0	0	0.53	22.04	0.33	6.31	72.4	0.678	4.3	7.23	
006	6/16/17 7:39 AM	S	CHARLES RIVER	MID-BASIN	0.1	2.13	2.13	2.13	23.8	0.29	7.06	83.7	0.596	4.3	7.42	0.7
006	6/16/17 7:39 AM	B	CHARLES RIVER	MID-BASIN	0	2.13	2.13	2.13	22.25	0.34	5.64	65	0.701	8.2	7.27	
006	7/13/17 8:10 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.14	1.47	1.64	24.81	0.38	5.56	67.1	0.779	12	7.21	0.5
006	7/13/17 8:10 AM	B	CHARLES RIVER	MID-BASIN	0	0.14	1.47	1.64	24.8	0.38	5.34	64.5	0.782	14.2	7.11	
006	7/14/17 8:20 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.14	1.47	23.33	0.38	5.31	62.4	0.775	7.1	7.36	0.8
006	7/14/17 8:20 AM	B	CHARLES RIVER	MID-BASIN	0	0	0.14	1.47	23.33	0.38	5.06	59.5	0.775	8.4	7.27	
006	7/17/17 8:12 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	23.91	0.28	7.57	89.9	0.586	12.5	7.27	0.5
006	7/17/17 8:12 AM	B	CHARLES RIVER	MID-BASIN	0	0	0	0	23.09	0.49	4.02	47.1	0.996	4.3	7.13	
006	7/18/17 8:13 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.12	0.12	0.12	24.49	0.33	8.09	97.2	0.688	4.2	7.56	0.7
006	7/18/17 8:13 AM	B	CHARLES RIVER	MID-BASIN	0	0.12	0.12	0.12	23.39	0.52	4.34	51.2	1.057	7.1	7.33	
006	8/22/17 8:29 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	24.39	0.37	7.39	88.6	0.749	1.7	7.58	1
006	8/22/17 8:29 AM	B	CHARLES RIVER	MID-BASIN	0	0	0	0	23.84	0.61	4.76	56.5	1.221	3.4	7.35	
006	8/23/17 8:05 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.04	0.04	0.04	25.02	0.39	7	84.9	0.794	2.6	7.27	1
006	8/23/17 8:05 AM	B	CHARLES RIVER	MID-BASIN	0	0.04	0.04	0.04	23.48	0.67	1.87	22.1	1.337	9.8	7.05	
006	8/24/17 8:24 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.04	0.04	24.53	0.44	7.53	90.6	0.906	3.3	7.46	1
006	8/24/17 8:24 AM	B	CHARLES RIVER	MID-BASIN	0	0	0.04	0.04	24.23	0.61	5.83	69.8	1.226	3.1	7.29	
006	8/25/17 8:42 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.04	24.07	0.5	7.51	89.6	1.016	2.3	7.5	1
006	8/25/17 8:42 AM	B	CHARLES RIVER	MID-BASIN	0	0	0	0.04	23.81	0.8	2.91	34.6	1.586	9.1	7.17	
006	8/28/17 8:13 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	23.34	0.48	6.63	78	0.977	5.4	7.52	0.9
006	8/28/17 8:13 AM	B	CHARLES RIVER	MID-BASIN	0	0	0	0	22.98	0.51	6.33	73.9	1.022	6.6	7.39	
006	9/1/17 8:23 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.07	21.1	0.64	7.83	88.3	1.282	5.8	7.57	0.8
006	9/1/17 8:23 AM	B	CHARLES RIVER	MID-BASIN	0	0	0	0.07	21.01	0.67	7.78	87.6	1.33	10.4	7.45	
006	9/6/17 8:08 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.22	0.22	0.22	21.23	0.49	7.85	88.7	0.99	3.3	7.96	1.2
006	9/6/17 8:08 AM	B	CHARLES RIVER	MID-BASIN	0	0.22	0.22	0.22	20.19	1.05	6.69	74.4	2.047	8.5	7.7	



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Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
006	9/18/17 8:13 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	22.55	0.52	8.05	93.3	1.054	2.6	7.28	1.1
006	9/18/17 8:13 AM	B	CHARLES RIVER	MID-BASIN		0	0	0	21.98	0.71	4.63	53.1	1.418	11.6	7.08	
006	9/19/17 8:03 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.04	0.04	0.04	22.14	0.46	6.7	77	0.939	5.9	7.48	0.9
006	9/19/17 8:03 AM	B	CHARLES RIVER	MID-BASIN		0.04	0.04	0.04	22.14	0.46	6.4	73.6	0.939	7.9	7.29	
006	10/24/17 8:22 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.07	0.07	0.07	16.95	0.93	10.12	105.2	1.827	5.7	7.99	1.1
006	10/24/17 8:22 AM	B	CHARLES RIVER	MID-BASIN		0.07	0.07	0.07	16.58	1.17	7.43	76.7	2.26	8.9	7.72	
006	10/25/17 8:08 AM	S	CHARLES RIVER	MID-BASIN	0.1	1.29	1.36	1.36	17.93	0.74	8.44	89.4	1.464	5.9	7.63	1
006	10/25/17 8:08 AM	B	CHARLES RIVER	MID-BASIN		1.29	1.36	1.36	16.68	1.3	6.33	65.6	2.51	11.4	7.45	
006	10/26/17 8:13 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.35	1.64	1.71	17.57	0.61	8.08	84.9	1.211	5.6	7.45	1
006	10/26/17 8:13 AM	B	CHARLES RIVER	MID-BASIN		0.35	1.64	1.71	17.45	0.84	7.18	75.3	1.657	7.8	7.3	
006	10/27/17 8:40 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.35	1.64	16.08	0.7	7.98	81.4	1.387	4.8	7.57	1.1
006	10/27/17 8:40 AM	B	CHARLES RIVER	MID-BASIN		0	0.35	1.64	17.15	1.89	6.39	67.1	3.574	15.6	7.26	
006	10/31/17 8:39 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.94	1.94	14.68	0.25	7.91	78.1	0.505	10.2	7.51	0.5
006	10/31/17 8:39 AM	B	CHARLES RIVER	MID-BASIN		0	0.94	1.94	15.93	0.98	6.75	68.7	1.921	11.8	7.05	
006	11/1/17 8:20 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.94	13.47	0.28	8.59	82.5	0.583	5.5	7.4	0.9
006	11/1/17 8:20 AM	B	CHARLES RIVER	MID-BASIN		0	0	0.94	13.33	0.28	8.37	80.1	0.581	8.6	7.29	
006	11/2/17 8:04 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	13.3	0.29	8.47	81.1	0.596	7	7.45	1.1
006	11/2/17 8:04 AM	B	CHARLES RIVER	MID-BASIN		0	0	0	13.29	0.29	8.46	81	0.595	8.2	7.36	
006	11/3/17 7:50 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.01	0.01	0.01	13.71	0.28	8.82	85.2	0.578	5.3	7.4	1
006	11/3/17 7:50 AM	B	CHARLES RIVER	MID-BASIN		0.01	0.01	0.01	14.31	0.65	6.84	67	1.301	11.8	7.2	
007	3/23/17 8:40 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	3.52	0.95	12.53	95	1.874	7.2	7.69	1.5
007	3/23/17 8:40 AM	B	CHARLES RIVER	MID-BASIN		0	0	0	3.47	0.95	12.43	94.1	1.878	8.9	7.63	
007	3/27/17 7:51 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.48	0.48	0.56	4.38	0.65	12.59	97.4	1.297	6	7.83	1.5
007	3/27/17 7:51 AM	B	CHARLES RIVER	MID-BASIN		0.48	0.48	0.56	4.37	0.67	12.37	95.7	1.351	9.5	7.71	
007	3/28/17 7:37 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.72	1.2	1.2	4.65	0.56	12.3	95.8	1.129	9.3	7.62	1.1
007	3/28/17 7:37 AM	B	CHARLES RIVER	MID-BASIN		0.72	1.2	1.2	4.43	0.83	11.96	92.8	1.655	7.5	7.45	
007	3/29/17 8:05 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.06	0.78	1.26	5.08	0.51	12.14	95.6	1.039	9.3	7.43	0.9
007	3/29/17 8:05 AM	B	CHARLES RIVER	MID-BASIN		0.06	0.78	1.26	4.7	0.88	11.53	90.1	1.749	11.6	7.34	
007	3/30/17 7:29 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	0.78	5.13	0.54	11.9	93.8	1.081	3.7	7.61	1
007	3/30/17 7:29 AM	B	CHARLES RIVER	MID-BASIN		0	0.06	0.78	4.89	0.89	10.56	83	1.768	4.4	7.37	
007	3/31/17 7:18 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.87	0.87	0.93	6.05	0.45	11.97	96.6	0.922	8.9	7.45	0.9
007	3/31/17 7:18 AM	B	CHARLES RIVER	MID-BASIN		0.87	0.87	0.93	5.38	0.65	11.18	88.8	1.305	49	7.42	
007	4/26/17 8:40 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.56	1.45	1.45	13.11	0.36	9.36	89.2	0.741		7.23	
007	4/26/17 8:40 AM	B	CHARLES RIVER	MID-BASIN		0.56	1.45	1.45	13.08	0.37	8.96	85.3	0.745		7.19	
007	4/27/17 8:08 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.56	1.45	13.07	0.35	9.42	89.7	0.707		7.27	
007	4/28/17 8:12 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.01	0.01	0.57	14.92	0.34	9.27	92	0.691		7.35	
007	4/29/17 7:44 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.01	0.01								
007	4/30/17 7:36 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.01	0.01	0.02								
007	5/1/17 7:48 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.01	0.01	16.29	0.34	8.24	84.2	0.703	8.8	7.4	1
007	5/1/17 7:48 AM	B	CHARLES RIVER	MID-BASIN		0	0.01	0.01	15.38	0.39	8.07	80.8	0.784	9.3	7.25	
007	5/3/17 7:33 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.19	0.19	14.68	0.37	8.5	83.9	0.752	5.1	7.46	1.4
007	5/3/17 7:33 AM	B	CHARLES RIVER	MID-BASIN		0	0.19	0.19	14.69	0.38	7.92	78.2	0.775	10.5	7.34	
007	5/5/17 7:54 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.64	0.64	0.64	14.66	0.34	9.17	90.5	0.688		7.37	
007	5/26/17 8:24 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.55	1.18	1.18	17.17	0.35	6.63	68.9	0.719		7.14	
007	5/27/17 7:38 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.55	1.18								
007	5/28/17 7:54 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.55								
007	5/29/17 7:32 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.05	0.05	0.05								
007	5/30/17 8:05 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.05	0.05								
007	6/6/17 7:44 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.8	1.39	1.57	16.43	0.36	7.54	77.2	0.74	8.7	7.22	
007	6/7/17 8:45 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.04	0.84	1.43	15.81	0.36	7.01	70.9	0.73	6.8	7.41	0.8
007	6/7/17 8:45 AM	B	CHARLES RIVER	MID-BASIN		0.04	0.84	1.43	15.45	0.38	6.94	69.7	0.772	23.6	7.33	
007	6/8/17 7:41 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.04	0.84	17.37	0.36	7.35	76.8	0.728	4.5	7.4	0.9
007	6/8/17 7:41 AM	B	CHARLES RIVER	MID-BASIN		0	0.04	0.84	15.33	0.31	6.45	64.5	0.637	7.4	7.38	
007	6/9/17 8:04 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.04	18.42	0.29	7.53	80.3	0.603	8.8	7.19	
007	6/13/17 7:51 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.53	0.53	0.53	21.59	0.33	7.17	81.5	0.668	2.4	7.28	0.8
007	6/13/17 7:51 AM	B	CHARLES RIVER	MID-BASIN		0.53	0.53	0.53	16.54	0.41	3.27	33.6	0.828	10.8	7	
007	6/14/17 7:54 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.53	0.53	22.99	0.32	7.46	87.1	0.668	3.2	7.38	0.9

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
007	6/14/17 7:54 AM	B	CHARLES RIVER	MID-BASIN	3.9	0	0.53	0.53	19.22	0.38	5.16	56	0.771	6.3	7.25	
007	6/15/17 7:37 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.53	22.99	0.32	7.46	87.1	0.668	3.2	7.38	1
007	6/15/17 7:37 AM	B	CHARLES RIVER	MID-BASIN	4.2	0	0	0.53	19.22	0.38	5.16	56	0.771	6.3	7.25	
007	6/16/17 7:31 AM	S	CHARLES RIVER	MID-BASIN	0.1	2.13	2.13	2.13	22.85	0.3	6.75	78.6	0.625	5.1	7.41	0.8
007	6/16/17 7:31 AM	B	CHARLES RIVER	MID-BASIN	4.1	2.13	2.13	2.13	19.36	0.41	3.52	38.3	0.824	7.6	7.22	
007	7/13/17 7:55 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.14	1.47	1.64	25	0.42	6.13	74.4	0.859	7.6	7.31	0.6
007	7/13/17 7:55 AM	B	CHARLES RIVER	MID-BASIN	3.9	0.14	1.47	1.64	23.87	0.56	3.71	44.1	1.124	9.2	7.13	
007	7/14/17 8:03 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.14	1.47	23.38	0.48	5.72	67.3	0.977	5.8	7.42	1
007	7/14/17 8:03 AM	B	CHARLES RIVER	MID-BASIN	4.7	0	0.14	1.47	22.53	0.63	0.82	9.5	1.26	6.2	7.19	
007	7/15/17 7:19 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.14								
007	7/16/17 7:02 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0								
007	7/17/17 7:55 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	24.61	0.38	6.41	77.1	0.783	7.3	7.38	1.1
007	7/17/17 7:55 AM	B	CHARLES RIVER	MID-BASIN	4.2	0	0	0	22.83	0.58	3.73	43.5	1.158	3.5	7.17	
007	7/18/17 8:02 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.12	0.12	0.12	24.19	0.44	6.96	83.2	0.896	2.5	7.54	1.1
007	7/18/17 8:02 AM	B	CHARLES RIVER	MID-BASIN	4.2	0.12	0.12	0.12	22.6	0.59	1.97	22.8	1.178	5	7.32	
007	8/19/17 9:08 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.01	0.25	0.25								
007	8/20/17 7:44 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.01	0.25								
007	8/21/17 8:54 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.01	24.51	0.5	8.64	103.8	1.014	3.7	7.46	
007	8/22/17 8:15 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	24.25	0.49	7.78	93.2	1.001	1.7	7.65	1
007	8/22/17 8:15 AM	B	CHARLES RIVER	MID-BASIN	4.2	0	0	0	22.64	2.22	0.54	6.3	4.178	7	7.15	
007	8/23/17 7:53 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.04	0.04	0.04	24.61	0.51	7.14	86	1.026	2.3	7.44	1.3
007	8/23/17 7:53 AM	B	CHARLES RIVER	MID-BASIN	4.3	0.04	0.04	0.04	24.6	0.51	7.12	85.7	1.026	2.2	7.42	
007	8/24/17 8:08 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.04	0.04	24.67	0.6	7.96	96	1.204	2.2	7.56	1.4
007	8/24/17 8:08 AM	B	CHARLES RIVER	MID-BASIN	4.6	0	0.04	0.04	22.28	4.94	0.51	6	8.834	3.7	7.14	
007	8/25/17 8:21 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.04	24.11	0.59	7.46	89.1	1.188		7.51	1.3
007	8/25/17 8:21 AM	B	CHARLES RIVER	MID-BASIN	4.5	0	0	0.04	21.92	5.89	1.08	12.8	10.41	4.1	6.98	
007	8/28/17 7:57 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	23.49	0.66	7.75	91.5	1.324	2.8	7.53	1.5
007	8/28/17 7:57 AM	B	CHARLES RIVER	MID-BASIN	4.3	0	0	0	22.11	6.19	1.05	12.5	10.9	4.9	7.03	
007	9/1/17 8:05 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.07	21.42	0.76	8.8	99.9	1.513	6.7	7.64	1.1
007	9/1/17 8:05 AM	B	CHARLES RIVER	MID-BASIN	4.7	0	0	0.07	21.54	9.73	2.74	32.9	16.55	7.4	7.09	
007	9/6/17 7:57 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.22	0.22	0.22	20.8	0.78	8.82	99	1.544	4.5	8.06	1
007	9/6/17 7:57 AM	B	CHARLES RIVER	MID-BASIN	3.9	0.22	0.22	0.22	20.58	4.35	1.09	12.4	7.834	10.2	7.39	
007	9/18/17 7:59 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	22.82	0.65	7.53	87.8	1.306	1.7	7.36	1.4
007	9/18/17 7:59 AM	B	CHARLES RIVER	MID-BASIN	3.9	0	0	0	20.55	2.65	0.48	5.4	4.931	11.7	7.06	
007	9/19/17 7:47 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.04	0.04	0.04	22.06	0.59	6.78	77.9	1.185	4.2	7.39	1.1
007	9/19/17 7:47 AM	B	CHARLES RIVER	MID-BASIN	3.9	0.04	0.04	0.04	20.41	8.08	0.98	11.4	13.94	6	6.71	
007	9/20/17 7:38 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.27	0.31	0.31	21.26	0.7	7.56	85.5	1.394	3.6	7.2	
007	9/21/17 8:11 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.27	0.31	20.95	0.79	6.65	74.8	1.56		7.27	
007	9/22/17 7:48 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.16	0.16	0.43	19.91	0.91	7.99	88.2	1.78	4.5	7.03	
007	10/24/17 8:09 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.07	0.07	0.07	16.79	1.09	10.53	109.2	2.125	5.1	7.92	1.4
007	10/24/17 8:09 AM	B	CHARLES RIVER	MID-BASIN	3.9	0.07	0.07	0.07	17.46	4.94	2.24	24.1	8.807	6.4	7.22	
007	10/25/17 7:52 AM	S	CHARLES RIVER	MID-BASIN	0.1	1.29	1.36	1.36	18.02	0.89	8.82	93.7	1.752	4.6	7.73	1.5
007	10/25/17 7:52 AM	B	CHARLES RIVER	MID-BASIN	4	1.29	1.36	1.36	17.75	5.75	0.87	9.4	10.15	9.6	7.15	
007	10/26/17 7:59 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.35	1.64	1.71	17.43	0.88	8.32	87.3	1.733	6.4	7.41	0.9
007	10/26/17 7:59 AM	B	CHARLES RIVER	MID-BASIN	3.6	0.35	1.64	1.71	17.13	1.88	4.33	45.4	3.564	7.7	7.3	
007	10/27/17 8:25 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.35	1.64	16.17	1.12	8.72	89.3	2.182	4	7.51	1.5
007	10/27/17 8:25 AM	B	CHARLES RIVER	MID-BASIN	4.1	0	0.35	1.64	18.16	8.19	2.21	24.6	14.09	6.4	6.94	
007	10/28/17 7:23 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.35								
007	10/29/17 7:38 AM	S	CHARLES RIVER	MID-BASIN	0.1	1	1	1								
007	10/30/17 8:37 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.94	1.94	1.94	16.11	0.34	8.99	91.5	0.693		7.22	
007	10/31/17 8:25 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.94	1.94	15	0.43	7.68	76.4	0.86	10.9	7.38	0.6
007	10/31/17 8:25 AM	B	CHARLES RIVER	MID-BASIN	4.2	0	0.94	1.94	15.55	0.72	6.1	61.5	1.433	10.8	7.21	
007	11/1/17 8:00 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.94	13.78	0.4	8.02	77.6	0.816	5.5	7.49	0.8
007	11/1/17 8:00 AM	B	CHARLES RIVER	MID-BASIN	3.9	0	0	0.94	15.03	0.89	6.58	65.7	1.752	9.3	7.28	
007	11/2/17 7:53 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	13.47	0.31	8.19	78.7	0.639	6.7	7.46	1
007	11/2/17 7:53 AM	B	CHARLES RIVER	MID-BASIN	4.7	0	0	0	15.04	1.15	1.9	19	2.236	6.5	7.37	
007	11/3/17 7:39 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.01	0.01	0.01	13.83	0.4	7.97	77.2	0.806	7.9	7.45	1.2

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
007	11/3/17 7:39 AM	B	CHARLES RIVER	MID-BASIN	4.4	0.01	0.01	0.01	16.78	7.43	2.33	25.1	12.87	11	6.79	
007	11/4/17 7:35 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.01	0.01								
145	3/23/17 8:46 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	3.26	0.78	12.61	94.8	1.562	7.3	7.69	1.5
145	3/23/17 8:46 AM	B	CHARLES RIVER	MID-BASIN	0	0	0	0	3.79	0.99	12.34	94.2	1.95	13.6	7.55	
145	3/27/17 7:56 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.48	0.48	0.56	4.45	0.7	12.56	97.4	1.41	6.2	7.81	1.4
145	3/27/17 7:56 AM	B	CHARLES RIVER	MID-BASIN	0	0.48	0.48	0.56	5.43	0.96	11.65	92.8	1.891	9.8	7.53	
145	3/28/17 7:43 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.72	1.2	1.2	4.91	0.61	12.2	95.7	1.227	10.1	7.57	1
145	3/28/17 7:43 AM	B	CHARLES RIVER	MID-BASIN	0	0.72	1.2	1.2	5.99	1.08	10.09	81.6	2.118	20	7.27	
145	3/29/17 8:10 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.06	0.78	1.26	5.34	0.54	12.4	98.3	1.094	9.9	7.49	0.7
145	3/29/17 8:10 AM	B	CHARLES RIVER	MID-BASIN	0	0.06	0.78	1.26	5.41	0.55	12.02	95.5	1.107	11.5	7.4	
145	3/30/17 7:37 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	0.78	5.05	0.48	12.08	95	0.97	3.5	7.65	0.7
145	3/30/17 7:37 AM	B	CHARLES RIVER	MID-BASIN	0	0	0.06	0.78	5.02	0.48	11.71	92	0.973	4.2	7.48	
145	3/31/17 7:23 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.87	0.87	0.93	5.83	0.56	11.84	95	1.131	8	7.48	0.8
145	3/31/17 7:23 AM	B	CHARLES RIVER	MID-BASIN	0	0.87	0.87	0.93	6.24	0.63	11.25	91.3	1.256	14	7.34	
145	4/26/17 8:14 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.56	1.45	1.45	10.74	0.23	9.26	83.6	0.474	7.32		
145	4/26/17 8:14 AM	B	CHARLES RIVER	MID-BASIN	0	0.56	1.45	1.45	10.74	0.23	9.04	81.6	0.473	7.18		
145	4/27/17 7:35 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.56	1.45	12.08	0.32	7.82	72.8	0.646	7.18		
145	4/28/17 7:57 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.01	0.01	0.57	14.37	0.33	9.65	94.6	0.666	7.38		
145	4/29/17 7:27 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.01	0.01								
145	4/30/17 7:21 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.01	0.01	0.02								
145	5/1/17 7:54 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.01	0.01	16.19	0.35	8.04	81.9	0.721	9.1	7.32	1
145	5/1/17 7:54 AM	B	CHARLES RIVER	MID-BASIN	0	0	0.01	0.01	13.78	0.71	7.72	74.9	1.409	10.4	7.09	
145	5/3/17 7:39 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.19	0.19	14.76	0.37	8.28	81.9	0.751	5.7	7.41	1.3
145	5/3/17 7:39 AM	B	CHARLES RIVER	MID-BASIN	0	0	0.19	0.19	14.48	0.38	7.8	76.6	0.769	7.1	7.26	
145	5/5/17 7:37 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.64	0.64	0.64	14.43	0.35	9.48	93	0.708	7.43		
145	5/26/17 8:05 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.55	1.18	1.18	16.8	0.35	7.54	77.8	0.711	7.18		
145	5/27/17 7:20 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.55	1.18								
145	5/28/17 6:52 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.55								
145	5/29/17 7:00 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.05	0.05	0.05								
145	5/30/17 7:35 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.05	0.05								
145	6/6/17 7:25 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.8	1.39	1.57	15.55	0.37	8.61	86.6	0.762	9.7	7.29	
145	6/7/17 8:51 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.04	0.84	1.43	16.03	0.33	7.25	73.6	0.672	6.5	7.38	0.9
145	6/7/17 8:51 AM	B	CHARLES RIVER	MID-BASIN	0	0.04	0.84	1.43	14.14	0.25	6.64	64.7	0.513	12.5	7.34	
145	6/8/17 7:45 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.04	0.84	17.5	0.3	7.76	81.3	0.624	4.9	7.33	1
145	6/8/17 7:45 AM	B	CHARLES RIVER	MID-BASIN	0	0	0.04	0.84	16.02	0.26	6.77	68.7	0.525	9.3	7.3	
145	6/9/17 7:32 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.04	17.71	0.29	8.85	93	0.585	11	7.28	
145	6/13/17 7:59 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.53	0.53	0.53	22.31	0.31	6.98	80.4	0.635	2.2	7.26	0.8
145	6/13/17 7:59 AM	B	CHARLES RIVER	MID-BASIN	0	0.53	0.53	0.53	21.42	0.33	6.48	73.4	0.686	7.6	7.12	
145	6/14/17 8:02 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.53	0.53	24.15	0.43	6.69	79.8	0.874	4.4	7.25	0.7
145	6/14/17 8:02 AM	B	CHARLES RIVER	MID-BASIN	0	0	0.53	0.53	22.2	0.4	6.07	69.8	0.812	5.1	7.26	
145	6/15/17 7:45 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.53	24.15	0.43	6.69	79.8	0.874	4.4	7.25	1
145	6/15/17 7:45 AM	B	CHARLES RIVER	MID-BASIN	0	0	0	0.53	22.2	0.4	6.07	69.8	0.812	5.1	7.26	
145	6/16/17 7:35 AM	S	CHARLES RIVER	MID-BASIN	0.1	2.13	2.13	2.13	22.97	0.31	6.39	74.6	0.631	3.2	7.33	1.1
145	6/16/17 7:35 AM	B	CHARLES RIVER	MID-BASIN	0	2.13	2.13	2.13	22.35	0.42	5.89	68	0.857	4.4	7.24	
145	7/13/17 8:01 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.14	1.47	1.64	24.81	0.49	4.51	54.6	0.986	6.4	7.14	0.8
145	7/13/17 8:01 AM	B	CHARLES RIVER	MID-BASIN	0	0.14	1.47	1.64	23.76	0.52	3.54	41.9	1.051	13.3	7.03	
145	7/14/17 8:10 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.14	1.47	23.36	0.53	5.99	70.5	1.078	4.1	7.37	1.2
145	7/14/17 8:10 AM	B	CHARLES RIVER	MID-BASIN	0	0	0.14	1.47	21.47	0.61	4.36	49.5	1.219	6.7	7.27	
145	7/15/17 6:44 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.14								
145	7/16/17 6:42 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0								
145	7/17/17 8:04 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	24.92	0.39	6.52	79	0.809	5.3	7.31	1
145	7/17/17 8:04 AM	B	CHARLES RIVER	MID-BASIN	0	0	0	0	24.04	0.39	5.41	64.5	0.804	4	7.2	
145	7/18/17 8:06 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.12	0.12	0.12	24.21	0.42	7.13	85.3	0.864	2.7	7.49	1.2
145	7/18/17 8:06 AM	B	CHARLES RIVER	MID-BASIN	0	0.12	0.12	0.12	23.87	0.51	6.42	76.3	1.028	3.8	7.38	
145	8/19/17 8:45 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.01	0.25	0.25								
145	8/20/17 7:26 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.01	0.25								
145	8/21/17 8:31 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.01	24.3	0.49	8.9	106.6	0.996	9.9	7.57	

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
145	8/21/17 8:31 AM	B	CHARLES RIVER	MID-BASIN		0	0	0.01	23.75	0.57	3.98	47.2	1.15	5.6	7.31	
145	8/22/17 8:22 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	24.35	0.49	7.65	91.7	0.995	1.8	7.62	1
145	8/22/17 8:22 AM	B	CHARLES RIVER	MID-BASIN		0	0	0	23.93	0.53	5.52	65.7	1.076	4.5	7.45	
145	8/23/17 7:58 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.04	0.04	0.04	24.85	0.55	7.21	87.2	1.108	2.2	7.49	1.1
145	8/23/17 7:58 AM	B	CHARLES RIVER	MID-BASIN		0.04	0.04	0.04	24.22	0.57	7.15	85.5	1.148	8	7.42	
145	8/24/17 8:16 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.04	0.04	24.49	0.61	8.17	98.2	1.22	2.2	7.58	1.1
145	8/24/17 8:16 AM	B	CHARLES RIVER	MID-BASIN		0	0.04	0.04	24.17	0.61	7.14	85.3	1.224	2.6	7.48	
145	8/25/17 8:32 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.04	23.74	0.59	7.47	88.6	1.196	2.2	7.54	1.4
145	8/25/17 8:32 AM	B	CHARLES RIVER	MID-BASIN		0	0	0.04	22.29	0.65	4.98	57.5	1.308	5.6	7.32	
145	8/28/17 8:03 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	23.26	0.61	7.74	91	1.234	4.7	7.56	1
145	8/28/17 8:03 AM	B	CHARLES RIVER	MID-BASIN		0	0	0	21.35	0.74	6.05	68.6	1.466	7.1	7.43	
145	9/1/17 8:09 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.07	21.03	0.77	8.52	96.1	1.522	6.1	7.65	0.9
145	9/1/17 8:09 AM	B	CHARLES RIVER	MID-BASIN		0	0	0.07	20.96	0.77	8.95	100.7	1.522	10.8	7.72	
145	9/6/17 8:01 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.22	0.22	0.22	20.95	0.86	8.56	96.4	1.696	3.7	8.01	1.1
145	9/6/17 8:01 AM	B	CHARLES RIVER	MID-BASIN		0.22	0.22	0.22	20.93	0.89	8.8	99	1.751	6.1	7.96	
145	9/18/17 8:05 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	22.74	0.62	6.81	79.2	1.24	1.8	7.24	1.4
145	9/18/17 8:05 AM	B	CHARLES RIVER	MID-BASIN		0	0	0	22.56	0.63	6.52	75.6	1.269	9.3	7.18	
145	9/19/17 7:53 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.04	0.04	0.04	21.73	0.73	5.31	60.7	1.447	3.3	7.29	1.1
145	9/19/17 7:53 AM	B	CHARLES RIVER	MID-BASIN		0.04	0.04	0.04	20.41	0.77	5.64	62.8	1.532	5.4	7.19	
145	9/20/17 7:17 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.27	0.31	0.31	20.79	0.54	5.47	61.3	1.096	3.8	7.21	
145	9/21/17 7:47 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.27	0.31	20.46	0.66	6.46	71.9	1.313		7.3	
145	9/22/17 7:28 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.16	0.16	0.43	19.3	0.67	6.96	75.8	1.343	4.8	6.89	
145	10/24/17 8:15 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.07	0.07	0.07	16.55	1.09	9.99	103.1	2.126	5.6	7.89	1.3
145	10/24/17 8:15 AM	B	CHARLES RIVER	MID-BASIN		0.07	0.07	0.07	16.55	1.14	9.52	98.2	2.204	7.1	7.78	
145	10/25/17 7:58 AM	S	CHARLES RIVER	MID-BASIN	0.1	1.29	1.36	1.36	17.9	0.95	7.9	83.7	1.861	10	7.53	0.4
145	10/25/17 7:58 AM	B	CHARLES RIVER	MID-BASIN		1.29	1.36	1.36	17.23	1.1	7.87	82.4	2.137	12.1	7.53	
145	10/26/17 8:05 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.35	1.64	1.71	17.71	0.67	7.37	77.6	1.336	7.1	7.54	0.9
145	10/26/17 8:05 AM	B	CHARLES RIVER	MID-BASIN		0.35	1.64	1.71	17.35	1.14	7.8	81.8	2.215	7.9	7.33	
145	10/27/17 8:30 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.35	1.64	16.18	0.98	7.81	79.9	1.917	4.8	7.46	1.3
145	10/27/17 8:30 AM	B	CHARLES RIVER	MID-BASIN		0	0.35	1.64	16.14	1.09	8.15	83.3	2.117	10.6	7.42	
145	10/28/17 7:04 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.35								
145	10/29/17 7:18 AM	S	CHARLES RIVER	MID-BASIN	0.1	1	1	1								
145	10/30/17 8:07 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.94	1.94	1.94	16.21	0.45	9.36	95.5	0.918		7.29	
145	10/31/17 8:32 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.94	1.94	14.74	0.41	7.19	71	0.834	10.6	7.34	0.6
145	10/31/17 8:32 AM	B	CHARLES RIVER	MID-BASIN		0	0.94	1.94	14.76	0.46	7.34	72.6	0.924	11	7.25	
145	11/1/17 8:09 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.94	13.99	0.41	6.74	65.6	0.835	8.9	7.37	0.8
145	11/1/17 8:09 AM	B	CHARLES RIVER	MID-BASIN		0	0	0.94	14.09	0.45	6.78	66.1	0.899	9.1	7.23	
145	11/2/17 7:57 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	13.62	0.35	7.67	73.9	0.707	6.9	7.45	1
145	11/2/17 7:57 AM	B	CHARLES RIVER	MID-BASIN		0	0	0	12.96	0.34	4.5	42.8	0.687	8.5	7.28	
145	11/3/17 7:43 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.01	0.01	0.01	13.61	0.34	8.07	77.8	0.701	4.7	7.44	1.1
145	11/3/17 7:43 AM	B	CHARLES RIVER	MID-BASIN		0.01	0.01	0.01	14.3	0.53	7.23	70.8	1.054	5.4	7.27	
145	11/4/17 7:15 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.01	0.01								
008	3/23/17 8:34 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	3.16	0.94	12.31	92.4	1.871	6.8	7.7	1.5
008	3/23/17 8:34 AM	B	CHARLES RIVER	MID-BASIN		0	0	0	3.12	0.94	12.31	92.3	1.874	8.9	7.67	
008	3/27/17 7:45 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.48	0.48	0.56	4.28	0.7	12.09	93.3	1.411	6	7.87	1.5
008	3/27/17 7:45 AM	B	CHARLES RIVER	MID-BASIN		0.48	0.48	0.56	4.2	0.79	12.17	93.9	1.581	10.7	7.66	
008	3/28/17 7:32 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.72	1.2	1.2	4.71	0.57	11.79	92	1.156	8.5	7.68	1.4
008	3/28/17 7:32 AM	B	CHARLES RIVER	MID-BASIN		0.72	1.2	1.2	4.83	0.88	11.79	92.5	1.741	18.7	7.46	
008	3/29/17 7:57 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.06	0.78	1.26	5.12	0.54	12.25	96.6	1.097	8.5	7.49	0.9
008	3/29/17 7:57 AM	B	CHARLES RIVER	MID-BASIN		0.06	0.78	1.26	5.16	0.55	12.08	95.3	1.103	13.3	7.4	
008	3/30/17 7:21 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	0.78	5	0.51	11.47	90.1	1.036	2.3	7.68	0.9
008	3/30/17 7:21 AM	B	CHARLES RIVER	MID-BASIN		0	0.06	0.78	5.04	0.52	11.38	89.5	1.045	4.5	7.46	
008	3/31/17 7:12 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.87	0.87	0.93	5.98	0.5	11.7	94.2	1.004	8	7.46	0.9
008	3/31/17 7:12 AM	B	CHARLES RIVER	MID-BASIN		0.87	0.87	0.93	5.39	0.73	11.15	88.6	1.464	15.2	7.34	
008	5/1/17 7:41 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.01	0.01	15.7	0.36	8.39	84.6	0.737	8.2	7.37	1.1
008	5/1/17 7:41 AM	B	CHARLES RIVER	MID-BASIN		0	0.01	0.01	15.09	0.43	8.35	83.2	0.863	4.2	7.33	
008	5/3/17 7:26 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.19	0.19	14.8	0.39	8.45	83.6	0.784	4.6	7.48	1.3

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Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
008	5/3/17 7:26 AM	B	CHARLES RIVER	MID-BASIN	3.6	0	0.19	0.19	14.77	0.4	7.98	79	0.812	10.6	7.25	
008	6/7/17 8:40 AM	S	CHARLES RIVER	MID-BASIN	5.1	0.04	0.84	1.43	16.05	0.37	7.45	75.8	0.748	6.4	7.52	0.9
008	6/7/17 8:40 AM	B	CHARLES RIVER	MID-BASIN	0.8	0.04	0.84	1.43	15.24	0.37	7.33	73.3	0.754	10.7	7.54	
008	6/8/17 7:32 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.04	0.84	17.26	0.37	7.31	76.3	0.755	4.6	7.52	0.9
008	6/8/17 7:32 AM	B	CHARLES RIVER	MID-BASIN	4.3	0	0.04	0.84	15.62	0.37	6.48	65.3	0.747	6.5	7.45	
008	6/13/17 7:46 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.53	0.53	0.53	21.63	0.33	7.39	84.1	0.67	2.2	7.37	0.9
008	6/13/17 7:46 AM	B	CHARLES RIVER	MID-BASIN	3.7	0.53	0.53	0.53	20.14	0.38	6.15	68	0.766	10.8	7.16	
008	6/14/17 7:49 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.53	0.53	23.27	0.31	7.26	85.2	0.639	3.1	7.44	0.6
008	6/14/17 7:49 AM	B	CHARLES RIVER	MID-BASIN	3.8	0	0.53	0.53	21.87	0.34	6.11	69.9	0.696	5.7	7.3	
008	6/15/17 7:32 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.53	23.27	0.31	7.26	85.2	0.639	3.1	7.44	1
008	6/15/17 7:32 AM	B	CHARLES RIVER	MID-BASIN	3.7	0	0	0.53	21.87	0.34	6.11	69.9	0.696	5.7	7.3	
008	6/16/17 7:27 AM	S	CHARLES RIVER	MID-BASIN	0.1	2.13	2.13	2.13	22.82	0.32	7.17	83.4	0.65	3.2	7.44	0.9
008	6/16/17 7:27 AM	B	CHARLES RIVER	MID-BASIN	3.9	2.13	2.13	2.13	21.55	0.38	5.71	64.9	0.777	6.2	7.31	
008	7/13/17 7:48 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.14	1.47	1.64	25.19	0.49	6.12	74.5	0.995	4.1	7.39	1
008	7/13/17 7:48 AM	B	CHARLES RIVER	MID-BASIN	3.6	0.14	1.47	1.64	24.14	0.57	4.58	54.8	1.151	10.5	7.2	
008	7/14/17 7:57 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.14	1.47	23.6	0.54	5.91	69.9	1.097	3.6	7.47	1.4
008	7/14/17 7:57 AM	B	CHARLES RIVER	MID-BASIN	3.6	0	0.14	1.47	23.59	0.54	5.83	68.9	1.095	5.3	7.41	
008	7/17/17 7:49 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	24.69	0.49	6.48	78.1	0.992	4	7.44	1.5
008	7/17/17 7:49 AM	B	CHARLES RIVER	MID-BASIN	3.7	0	0	0	23.02	0.69	4.32	50.6	1.376	3.3	7.29	
008	7/18/17 7:56 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.12	0.12	0.12	24.76	0.47	7.34	88.6	0.958	2.5	7.65	1
008	7/18/17 7:56 AM	B	CHARLES RIVER	MID-BASIN	4.1	0.12	0.12	0.12	22.99	0.56	4.45	52.1	1.12	3.2	7.46	
008	8/22/17 8:09 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	24.42	0.51	8.32	99.9	1.026	2.2	7.79	1.2
008	8/22/17 8:09 AM	B	CHARLES RIVER	MID-BASIN	4	0	0	0	22.95	3.09	0.96	11.4	5.707	7.5	7.17	
008	8/23/17 7:46 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.04	0.04	0.04	24.8	0.54	7.64	92.4	1.086	2.2	7.63	1.4
008	8/23/17 7:46 AM	B	CHARLES RIVER	MID-BASIN	4	0.04	0.04	0.04	23.62	3.4	1.98	23.8	6.234	5.2	7.31	
008	8/24/17 8:02 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.04	0.04	24.47	0.58	7.72	92.8	1.169	2.1	7.6	1
008	8/24/17 8:02 AM	B	CHARLES RIVER	MID-BASIN	3.6	0	0.04	0.04	23.44	1.8	1.44	17.1	3.434	6.3	7.19	
008	8/25/17 8:10 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.04	24.16	0.59	7.79	93.1	1.191	1.8	7.63	1.2
008	8/25/17 8:10 AM	B	CHARLES RIVER	MID-BASIN	3.9	0	0	0.04	23.1	3.71	1.12	13.4	6.763	4.5	7.1	
008	8/28/17 7:50 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	23.28	0.66	7.65	90	1.327	2.6	7.59	1.2
008	8/28/17 7:50 AM	B	CHARLES RIVER	MID-BASIN	3.5	0	0	0	23.15	0.94	6.49	76.3	1.849	6.1	7.47	
008	9/1/17 7:58 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.07	21.16	0.72	8.49	95.9	1.436	5.1	7.59	0.9
008	9/1/17 7:58 AM	B	CHARLES RIVER	MID-BASIN	3.4	0	0	0.07	21.09	0.77	8.36	94.4	1.533	10.7	7.61	
008	9/6/17 7:52 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.22	0.22	0.22	21.11	0.92	9.46	106.9	1.803	4.2	8.22	1.2
008	9/6/17 7:52 AM	B	CHARLES RIVER	MID-BASIN	3.6	0.22	0.22	0.22	20.44	1.54	6.6	73.9	2.945	6.8	7.8	
008	9/18/17 7:54 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	22.73	0.72	7.35	85.5	1.431	1.3	7.4	2
008	9/18/17 7:54 AM	B	CHARLES RIVER	MID-BASIN	3.4	0	0	0	21.5	1	5.54	63.2	1.97	8.7	7.26	
008	9/19/17 7:42 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.04	0.04	0.04	22.13	0.73	7.18	82.7	1.463	2.6	7.3	1.6
008	9/19/17 7:42 AM	B	CHARLES RIVER	MID-BASIN	3.4	0.04	0.04	0.04	22.07	0.77	7.06	81.2	1.529	4.2	7.3	
008	10/24/17 8:03 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.07	0.07	0.07	16.69	1.16	10.22	105.8	2.256	5.3	7.86	1.4
008	10/24/17 8:03 AM	B	CHARLES RIVER	MID-BASIN	3.9	0.07	0.07	0.07	17.29	5.62	2.61	28.1	9.937	5.1	7.15	
008	10/25/17 7:46 AM	S	CHARLES RIVER	MID-BASIN	0.1	1.29	1.36	1.36	17.83	0.9	8.8	93.1	1.765	11	7.81	0.6
008	10/25/17 7:46 AM	B	CHARLES RIVER	MID-BASIN	3.5	1.29	1.36	1.36	17.03	2.1	7.8	81.8	3.952	9.2	7.59	
008	10/26/17 7:53 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.35	1.64	1.71	17.43	1.05	8.81	92.5	2.043	5	7.4	1.1
008	10/26/17 7:53 AM	B	CHARLES RIVER	MID-BASIN	3.6	0.35	1.64	1.71	17.18	1.31	8.01	83.8	2.528	4.8	7.35	
008	10/27/17 8:19 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.35	1.64	16.17	1.11	8.37	85.7	2.149	4.3	7.53	1.3
008	10/27/17 8:19 AM	B	CHARLES RIVER	MID-BASIN	3.4	0	0.35	1.64	16.64	1.51	7.71	79.9	2.89	8.7	7.39	
008	10/31/17 8:19 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.94	1.94	14.92	0.54	7.48	74.3	1.079	9.4	7.41	0.7
008	10/31/17 8:19 AM	B	CHARLES RIVER	MID-BASIN	3.8	0	0.94	1.94	15.26	0.84	7.3	73.1	1.661	9.7	7.21	
008	11/1/17 7:53 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.94	14.18	0.53	7.49	73.2	1.057	6.8	7.53	0.6
008	11/1/17 7:53 AM	B	CHARLES RIVER	MID-BASIN	3.2	0	0	0.94	15	0.89	7.79	77.7	1.744	8.9	7.32	
008	11/2/17 7:47 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	13.66	0.38	7.64	73.7	0.764	6.7	7.61	1.1
008	11/2/17 7:47 AM	B	CHARLES RIVER	MID-BASIN	3.8	0	0	0	14.6	0.74	7.16	70.7	1.464	8.4	7.3	
008	11/3/17 7:33 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.01	0.01	0.01	13.89	0.42	7.78	75.5	0.847	4.8	7.53	1.2
008	11/3/17 7:33 AM	B	CHARLES RIVER	MID-BASIN	3.7	0.01	0.01	0.01	14.56	0.91	7.02	69.3	1.78	7	7.31	
009	3/23/17 8:27 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	3.14	0.92	12.26	91.9	1.83	6.9	7.75	1.5
009	3/23/17 8:27 AM	B	CHARLES RIVER	MID-BASIN	8.8	0	0	0	9.79	23.11	2.1	21.4	36.69	6.2	7.09	

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
009	3/27/17 7:35 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.48	0.48	0.56	4.03	0.85	12.63	97	1.688	6.2	7.89	1.7
009	3/27/17 7:35 AM	B	CHARLES RIVER	MID-BASIN	8.9	0.48	0.48	0.56	9.65	22.13	1.04	10.6	35.28	6.1	7.07	
009	3/28/17 7:23 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.72	1.2	1.2	4.32	0.74	12.58	97.2	1.486	8.3	7.72	1.6
009	3/28/17 7:23 AM	B	CHARLES RIVER	MID-BASIN	8.5	0.72	1.2	1.2	9.63	23.15	0.95	9.7	36.76	1.7	7.04	
009	3/29/17 7:47 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.06	0.78	1.26	4.71	0.68	12.51	97.7	1.36	6.2	7.6	1.3
009	3/29/17 7:47 AM	B	CHARLES RIVER	MID-BASIN	6.7	0.06	0.78	1.26	9.19	23.56	1.44	14.6	37.38	5.4	7.11	
009	3/30/17 7:11 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	0.78	5.15	0.53	11.25	88.7	1.064	3.5	7.75	0.6
009	3/30/17 7:11 AM	B	CHARLES RIVER	MID-BASIN	6.9	0	0.06	0.78	9.37	22.88	2.37	24	36.39	1.5	7.06	
009	3/31/17 7:04 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.87	0.87	0.93	5.81	0.55	11.82	94.9	1.102	6.6	7.55	1
009	3/31/17 7:04 AM	B	CHARLES RIVER	MID-BASIN	8.6	0.87	0.87	0.93	9.55	23.65	3.9	39.8	37.49	5.3	7.05	
009	4/26/17 8:01 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.56	1.45	1.45	12.98	0.4	10.13	96.4	0.813		7.56	
009	4/26/17 8:01 AM	B	CHARLES RIVER	MID-BASIN	0.1	0.56	1.45	1.45	12.97	0.41	9.65	91.8	0.828		7.43	
009	4/27/17 7:24 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.56	1.45	13.03	0.4	9.86	93.9	0.81		7.34	
009	4/28/17 7:48 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.01	0.01	0.57	14.39	0.33	9.57	93.8	0.677		7.36	
009	4/29/17 7:15 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.01	0.01								
009	4/30/17 7:10 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.01	0.01	0.02								
009	5/1/17 7:32 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.01	0.01	15.08	0.39	8.75	87.1	0.797	7.9	7.48	1.1
009	5/1/17 7:32 AM	B	CHARLES RIVER	MID-BASIN	8.7	0	0.01	0.01	9.56	23.43	0.3	3.1	37.17	7.8	7.07	
009	5/3/17 7:18 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.19	0.19	14.68	0.39	8.67	85.6	0.799	4.4	7.47	1.3
009	5/3/17 7:18 AM	B	CHARLES RIVER	MID-BASIN	8.6	0	0.19	0.19	9.58	23.27	3.21	32.7	36.94	6.1	7.03	
009	5/5/17 7:06 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.64	0.64	0.64	14.63	0.4	8.8	86.7	0.817		7.31	
009	5/26/17 7:51 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.55	1.18	1.18	17.6	0.38	8.06	84.7	0.777		7.15	
009	5/27/17 7:10 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.55	1.18								
009	5/28/17 6:40 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.55								
009	5/29/17 6:47 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.05	0.05	0.05								
009	5/30/17 7:24 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.05	0.05	16.82	0.36	6.45	66.6	0.738	1.9	7.14	
009	6/1/17 7:40 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.16	0.22	0.22								
009	6/6/17 7:11 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.8	1.39	1.57	16.82	0.42	7.49	77.4	0.86	15.7	7.25	
009	6/7/17 8:31 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.04	0.84	1.43	16.36	0.42	7.52	77	0.858	6.1	7.43	0.7
009	6/7/17 8:31 AM	B	CHARLES RIVER	MID-BASIN	8.7	0.04	0.84	1.43	9.94	23.22	0.86	8.8	36.84	4.6	6.94	
009	6/8/17 7:23 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.04	0.84	16.88	0.35	7.69	79.5	0.706	5.1	7.34	1
009	6/8/17 7:23 AM	B	CHARLES RIVER	MID-BASIN	8.1	0	0.04	0.84	9.92	23.16	0.1	1	36.76	9.4	7.01	
009	6/9/17 7:20 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.04	17.18	0.32	8.42	87.6	0.645	7.9	7.3	
009	6/13/17 7:40 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.53	0.53	0.53	22.21	0.32	7.83	90.1	0.662	6.1	7.32	0.7
009	6/13/17 7:40 AM	B	CHARLES RIVER	MID-BASIN	8.8	0.53	0.53	0.53	10.01	23.16	0.17	1.8	36.76	3.1	7.05	
009	6/14/17 7:43 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.53	0.53	23.07	0.32	7.54	88.2	0.667	3.3	7.44	0.8
009	6/14/17 7:43 AM	B	CHARLES RIVER	MID-BASIN	8.5	0	0.53	0.53	10.08	23.25	1.83	18.9	36.88	3.3	6.99	
009	6/15/17 7:26 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.53	23.07	0.32	7.54	88.2	0.667	3.3	7.44	1
009	6/15/17 7:26 AM	B	CHARLES RIVER	MID-BASIN	8.5	0	0	0.53	10.08	23.25	1.83	18.9	36.88	3.3	6.99	
009	6/16/17 7:19 AM	S	CHARLES RIVER	MID-BASIN	0.1	2.13	2.13	2.13	22.8	0.32	7.75	90.1	0.668	3.4	7.49	1
009	6/16/17 7:19 AM	B	CHARLES RIVER	MID-BASIN	8.7	2.13	2.13	2.13	10.09	23.34	0.85	8.8	37.01	4.2	7.02	
009	7/13/17 7:37 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.14	1.47	1.64	24.95	0.54	6.67	80.9	1.1	2.7	7.48	1.6
009	7/13/17 7:37 AM	B	CHARLES RIVER	MID-BASIN	8.7	0.14	1.47	1.64	10.57	22.87	0.09	0.9	36.3	8.7	7.11	
009	7/14/17 7:50 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.14	1.47	23.64	0.57	6.16	72.9	1.155	2.6	7.53	1.5
009	7/14/17 7:50 AM	B	CHARLES RIVER	MID-BASIN	8.5	0	0.14	1.47	10.7	23.23	1.12	11.6	36.81	3.7	6.89	
009	7/15/17 6:32 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.14								
009	7/16/17 6:32 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0								
009	7/17/17 7:42 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	24.26	0.49	6.6	79	1.002	3.3	7.4	1.3
009	7/17/17 7:42 AM	B	CHARLES RIVER	MID-BASIN	8.9	0	0	0	10.8	21.7	0.2	2	34.6	0.2	7.15	
009	7/18/17 7:44 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.12	0.12	0.12	25.12	0.48	8.21	99.8	0.968	3.5	7.48	0.9
009	7/18/17 7:44 AM	B	CHARLES RIVER	MID-BASIN	7.5	0.12	0.12	0.12	11.21	23.1	0.11	1.2	36.6	18.1	6.94	
009	8/19/17 8:30 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.01	0.25	0.25								
009	8/20/17 7:18 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.01	0.25								
009	8/21/17 8:16 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.01	24.36	0.49	9.17	110	1.001	4.4	7.5	
009	8/21/17 8:16 AM	B	CHARLES RIVER	MID-BASIN	0	0	0	0.01	24.28	0.59	8.15	97.7	1.181	4.5	7.61	
009	8/22/17 8:00 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	24.57	0.51	8.81	106	1.036	1.6	7.83	1.3
009	8/22/17 8:00 AM	B	CHARLES RIVER	MID-BASIN	8.2	0	0	0	11.72	22.97	0.22	2.3	36.38		6.85	

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Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
009	8/23/17 7:35 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.04	0.04	0.04	24.95	0.57	8.14	98.7	1.15	5.7	7.74	1.4
009	8/23/17 7:35 AM	B	CHARLES RIVER	MID-BASIN	8.5	0.04	0.04	0.04	11.5	22.89	0.18	1.9	36.28	3.5	7.07	
009	8/24/17 7:53 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.04	0.04	24.52	0.61	8.18	98.4	1.221	1.8	7.64	1.2
009	8/24/17 7:53 AM	B	CHARLES RIVER	MID-BASIN	8.8	0	0.04	0.04	11.35	23.04	0.84	8.8	36.5	2.8	6.88	
009	8/25/17 7:56 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.04	24.29	0.61	8.17	97.9	1.219	1.7	7.62	1.3
009	8/25/17 7:56 AM	B	CHARLES RIVER	MID-BASIN	6.7	0	0	0.04	14.32	21.62	0.14	1.5	34.37	1.4	7.06	
009	8/28/17 7:43 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	23.15	0.69	7.4	86.9	1.379	2.6	7.67	1.3
009	8/28/17 7:43 AM	B	CHARLES RIVER	MID-BASIN	8.4	0	0	0	11.82	23.09	1.48	15.8	36.56	4.4	6.87	
009	9/1/17 7:51 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.07	21.25	0.74	9.22	104.4	1.464	5.8	7.74	0.8
009	9/1/17 7:51 AM	B	CHARLES RIVER	MID-BASIN	6.6	0	0	0.07	18.42	22.27	2.65	32.2	35.27	5.6	6.94	
009	9/6/17 7:45 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.22	0.22	0.22	21.13	0.88	9.38	106	1.737	4.1	8.13	1.3
009	9/6/17 7:45 AM	B	CHARLES RIVER	MID-BASIN	8.3	0.22	0.22	0.22	11.82	22.98	0.46	4.9	36.4	2.3	7.18	
009	9/18/17 7:46 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	22.21	0.75	7.45	85.9	1.497	1.5	7.37	2.1
009	9/18/17 7:46 AM	B	CHARLES RIVER	MID-BASIN	8.4	0	0	0	12.28	22.88	0.15	1.6	36.24	2.4	6.9	
009	9/19/17 7:32 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.04	0.04	0.04	21.92	0.81	7.22	82.8	1.604	2.2	7.23	1.6
009	9/19/17 7:32 AM	B	CHARLES RIVER	MID-BASIN	7.9	0.04	0.04	0.04	12.83	22.96	1.49	16.2	36.34	1.7	6.47	
009	9/20/17 7:05 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.27	0.31	0.31	21.26	0.84	7.54	85.4	1.664	1.8	7.1	
009	9/21/17 7:35 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.27	0.31	20.93	0.91	7.59	85.4	1.79		7.27	
009	9/22/17 7:15 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.16	0.16	0.43	20.09	1.02	8.3	92	1.993	3.8	6.68	
009	10/24/17 7:55 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.07	0.07	0.07	16.54	1.2	10.83	111.8	2.33	5.1	7.7	1.5
009	10/24/17 7:55 AM	B	CHARLES RIVER	MID-BASIN	8.7	0.07	0.07	0.07	12.93	23.04	0.26	2.9	36.45	6.9	6.67	
009	10/25/17 7:38 AM	S	CHARLES RIVER	MID-BASIN	0.1	1.29	1.36	1.36	17.6	1.16	9.6	101.2	2.257	2.8	7.79	1.5
009	10/25/17 7:38 AM	B	CHARLES RIVER	MID-BASIN	8	1.29	1.36	1.36	13.38	22.9	0.42	4.6	36.23	3.9	6.88	
009	10/26/17 7:46 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.35	1.64	1.71	17.45	1.19	9.07	95.4	2.297	4.5	7.25	1.5
009	10/26/17 7:46 AM	B	CHARLES RIVER	MID-BASIN	8.6	0.35	1.64	1.71	12.67	23.12	1.21	13.1	36.57	0	6.52	
009	10/27/17 8:12 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.35	1.64	16.15	1.12	8.8	90.1	2.167	4.2	7.41	1.4
009	10/27/17 8:12 AM	B	CHARLES RIVER	MID-BASIN	7.9	0	0.35	1.64	13.73	21.09	0.3	3.3	33.6	4.8	6.77	
009	10/28/17 6:53 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.35								
009	10/29/17 7:08 AM	S	CHARLES RIVER	MID-BASIN	0.1	1	1	1								
009	10/30/17 7:53 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.94	1.94	1.94	16.25	0.69	9.1	93	1.377		7.17	
009	10/31/17 8:14 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.94	1.94	14.91	0.79	8.09	80.4	1.562	7.8	7.2	0.7
009	10/31/17 8:14 AM	B	CHARLES RIVER	MID-BASIN	8.6	0	0.94	1.94	13.46	22.94	0.39	4.3	36.28	2.1	6.46	
009	11/1/17 7:44 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.94	14.2	0.58	7.91	77.4	1.16	7.2	7.38	0.7
009	11/1/17 7:44 AM	B	CHARLES RIVER	MID-BASIN	8.3	0	0	0.94	13.41	22.87	0.24	2.7	36.19	12.4	6.74	
009	11/2/17 7:42 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	14.27	0.6	7.57	74.1	1.199	7.2	7.27	1
009	11/2/17 7:42 AM	B	CHARLES RIVER	MID-BASIN	7.9	0	0	0	13.39	22.91	1.12	12.4	36.24	4.1	6.42	
009	11/3/17 7:26 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.01	0.01	0.01	14.33	0.49	8.06	79	0.976	4.9	7.35	1.3
009	11/3/17 7:26 AM	B	CHARLES RIVER	MID-BASIN	8.3	0.01	0.01	0.01	13.44	22.85	0.64	7	36.16	5.8	6.67	
009	11/4/17 7:05 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.01	0.01								
010	3/23/17 8:20 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	3.24	0.93	12.77	96	1.844	7.2	7.64	1.4
010	3/23/17 8:20 AM	B	CHARLES RIVER	MID-BASIN	8.1	0	0	0	8.67	26.47	4.96	50.5	41.6	5.2	7.11	
010	3/27/17 7:25 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.48	0.48	0.56	3.89	0.88	12.8	97.9	1.747	6.4	8.09	1.5
010	3/27/17 7:25 AM	B	CHARLES RIVER	MID-BASIN	8.7	0.48	0.48	0.56	8.17	27	2.9	29.3	42.4	9.4	7.07	
010	3/28/17 7:17 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.72	1.2	1.2	4.18	0.82	12.79	98.6	1.637	8.2	7.73	1.5
010	3/28/17 7:17 AM	B	CHARLES RIVER	MID-BASIN	7.7	0.72	1.2	1.2	7.32	25.79	8.85	87	40.76	8.9	6.89	
010	3/29/17 7:39 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.06	0.78	1.26	4.52	0.77	12.91	100.3	1.53	5.8	7.6	1.4
010	3/29/17 7:39 AM	B	CHARLES RIVER	MID-BASIN	8.3	0.06	0.78	1.26	7.93	27.53	2.26	22.8	43.19	20.7	7.01	
010	3/30/17 7:01 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.06	0.78	4.79	0.62	12.44	97.3	1.241	2.9	7.86	1.1
010	3/30/17 7:01 AM	B	CHARLES RIVER	MID-BASIN	7.9	0	0.06	0.78	7.08	26.06	1.65	16.1	41.18	0.8	7.13	
010	3/31/17 6:56 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.87	0.87	0.93	5.76	0.55	12.22	97.9	1.112	9.1	7.46	1
010	3/31/17 6:56 AM	B	CHARLES RIVER	MID-BASIN	8.1	0.87	0.87	0.93	8.41	24.91	2.71	27.2	39.4	9.8	6.98	
010	5/1/17 7:23 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.01	0.01	15.03	0.39	9	89.5	0.795	8.2	7.66	1.4
010	5/1/17 7:23 AM	B	CHARLES RIVER	MID-BASIN	8.7	0	0.01	0.01	7.51	26.61	0.56	5.5	41.91	4	7.03	
010	5/3/17 7:11 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.19	0.19	14.75	0.39	8.74	86.4	0.782	4.6	7.42	1.3
010	5/3/17 7:11 AM	B	CHARLES RIVER	MID-BASIN	8.3	0	0.19	0.19	7.96	24.99	2.35	23.3	39.55	2	7.13	
010	6/7/17 8:24 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.04	0.84	1.43	16.24	0.42	7.36	75.1	0.843	6.2	7.08	1
010	6/7/17 8:24 AM	B	CHARLES RIVER	MID-BASIN	7.9	0.04	0.84	1.43	8.83	26.04	1.88	19.2	40.97	18.7	6.84	

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
010	6/8/17 7:10 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.04	0.84	16.73	0.39	7.54	77.8	0.792	4.4	7.11	1
010	6/8/17 7:10 AM	B	CHARLES RIVER	MID-BASIN	8.6	0	0.04	0.84	8.57	26.23	0.71	7.2	41.27	8.8	6.97	
010	6/13/17 7:27 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.53	0.53	0.53	22.23	0.32	7.88	90.6	0.666	2.3	7.36	0.8
010	6/13/17 7:27 AM	B	CHARLES RIVER	MID-BASIN	8.9	0.53	0.53	0.53	8.69	26.15	0.2	2	41.14	10	7.03	
010	6/14/17 7:32 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.53	0.53	23.34	0.33	7.71	90.6	0.674	3.5	7.25	0.7
010	6/14/17 7:32 AM	B	CHARLES RIVER	MID-BASIN	6.4	0	0.53	0.53	14.45	16.19	2.4	25.9	26.39	3.7	7.18	
010	6/15/17 7:15 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.53	23.34	0.33	7.71	90.6	0.674	3.5	7.25	1.1
010	6/15/17 7:15 AM	B	CHARLES RIVER	MID-BASIN	8.4	0	0	0.53	14.45	16.19	2.4	25.9	26.39	3.7	7.18	
010	6/16/17 7:11 AM	S	CHARLES RIVER	MID-BASIN	0.1	2.13	2.13	2.13	22.97	0.33	8.27	96.6	0.684	3.3	7.29	0.9
010	6/16/17 7:11 AM	B	CHARLES RIVER	MID-BASIN	8.5	2.13	2.13	2.13	8.92	26.3	0.19	2	41.34	10.1	7.02	
010	7/13/17 7:30 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.14	1.47	1.64	24.86	0.55	6.63	80.2	1.111	3	7.51	1.9
010	7/13/17 7:30 AM	B	CHARLES RIVER	MID-BASIN	8.7	0.14	1.47	1.64	10.13	25.56	0.26	2.7	40.19	8.9	7.14	
010	7/14/17 7:41 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.14	1.47	23.63	0.61	6.25	74	1.221	2.2	7.12	1.6
010	7/14/17 7:41 AM	B	CHARLES RIVER	MID-BASIN	7.8	0	0.14	1.47	12.41	24.71	0.26	2.8	38.86	20.5	7.09	
010	7/17/17 7:34 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	24.15	0.54	6.55	78.3	1.087	10.1	7.27	1.5
010	7/17/17 7:34 AM	B	CHARLES RIVER	MID-BASIN	8.7	0	0	0	10.49	25.55	0.4	4.2	40.15	4.7	7.1	
010	7/18/17 7:37 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.12	0.12	0.12	25.43	0.51	8.04	98.3	1.031	2.6	7.29	1.3
010	7/18/17 7:37 AM	B	CHARLES RIVER	MID-BASIN	8.5	0.12	0.12	0.12	10.67	25.93	1.31	13.9	40.68	8.8	6.76	
010	8/22/17 7:50 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	24.64	0.52	8.89	107.1	1.048	1.5	7.68	1.2
010	8/22/17 7:50 AM	B	CHARLES RIVER	MID-BASIN	5.7	0	0	0	17.54	22.86	2	24	36.11	1	7.08	
010	8/23/17 7:26 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.04	0.04	0.04	24.98	0.57	8.16	99	1.158	1.9	7.64	1.2
010	8/23/17 7:26 AM	B	CHARLES RIVER	MID-BASIN	8.1	0.04	0.04	0.04	12.78	24.95	0.98	10.8	39.19	15.4	7.2	
010	8/24/17 7:40 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.04	0.04	24.63	0.61	8.38	101	1.219	2.3	7.21	1.4
010	8/24/17 7:40 AM	B	CHARLES RIVER	MID-BASIN	8.2	0	0.04	0.04	12.23	24.7	1.27	13.9	38.85		6.87	
010	8/25/17 7:49 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.04	24.38	0.6	8.24	98.9	1.218	1.7	7.53	1.3
010	8/25/17 7:49 AM	B	CHARLES RIVER	MID-BASIN	7.5	0	0	0.04	13.76	22.42	1.48	16.4	35.53	1.5	7.08	
010	8/28/17 7:31 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	23.1	0.68	7.92	92.8	1.357	3.1	7.32	1.3
010	8/28/17 7:31 AM	B	CHARLES RIVER	MID-BASIN	8.3	0	0	0	12.93	24.93	0.14	1.5	39.15	16.2	7.01	
010	9/1/17 7:44 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.07	21.47	0.84	8.66	98.5	1.667	9.4	7.45	1
010	9/1/17 7:44 AM	B	CHARLES RIVER	MID-BASIN	8.5	0	0	0.07	13.01	25.55	2.78	31	40.03	9.5	6.92	
010	9/6/17 7:34 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.22	0.22	0.22	21.11	0.91	9.55	107.9	1.797	4	8.07	1.1
010	9/6/17 7:34 AM	B	CHARLES RIVER	MID-BASIN	8.6	0.22	0.22	0.22	13.6	24.19	0.64	7.2	38.07	5.2	7.31	
010	9/18/17 7:37 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	22.08	0.82	7.55	86.9	1.629	1.2	7.25	2.1
010	9/18/17 7:37 AM	B	CHARLES RIVER	MID-BASIN	8.4	0	0	0	13.83	25.09	0.19	2.2	39.34	5.3	6.93	
010	9/19/17 7:24 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.04	0.04	0.04	21.82	0.85	7.18	82.2	1.676	2.2	7.05	1.7
010	9/19/17 7:24 AM	B	CHARLES RIVER	MID-BASIN	8.4	0.04	0.04	0.04	13.74	25.82	1.6	18.1	40.38	7.9	6.37	
010	10/24/17 7:49 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.07	0.07	0.07	16.53	1.22	10.86	112.1	2.357	4.9	7.45	1.5
010	10/24/17 7:49 AM	B	CHARLES RIVER	MID-BASIN	8.6	0.07	0.07	0.07	14.15	25.9	1.54	17.6	40.48	4.4	6.43	
010	10/25/17 7:31 AM	S	CHARLES RIVER	MID-BASIN	0.1	1.29	1.36	1.36	17.58	1.19	9.89	104.3	2.3	3	7.73	1.6
010	10/25/17 7:31 AM	B	CHARLES RIVER	MID-BASIN	8.6	1.29	1.36	1.36	14.19	25.79	2.63	30.1	40.33	4.9	6.82	
010	10/26/17 7:38 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.35	1.64	1.71	17.56	1.08	9.25	97.5	2.102	4.9	6.9	1.4
010	10/26/17 7:38 AM	B	CHARLES RIVER	MID-BASIN	8.9	0.35	1.64	1.71	14.19	26	0.86	9.9	40.63	2.4	6.33	
010	10/27/17 8:01 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.35	1.64	16.14	1.15	8.89	91	2.224	4.2	7.05	1.3
010	10/27/17 8:01 AM	B	CHARLES RIVER	MID-BASIN	8.5	0	0.35	1.64	14.04	23.95	0.69	7.8	37.72	1.5	6.62	
010	10/31/17 8:08 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0.94	1.94	14.95	0.78	8.2	81.6	1.534	8.1	6.91	0.6
010	10/31/17 8:08 AM	B	CHARLES RIVER	MID-BASIN	8.6	0	0.94	1.94	14.32	24.38	0.8	9.1	38.32	0.1	6.27	
010	11/1/17 7:37 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0.94	14.23	0.69	8.35	81.8	1.362	7	6.98	0.8
010	11/1/17 7:37 AM	B	CHARLES RIVER	MID-BASIN	8.5	0	0	0.94	14.45	25.75	0.68	7.8	40.26	5.1	6.53	
010	11/2/17 7:35 AM	S	CHARLES RIVER	MID-BASIN	0.1	0	0	0	14.04	0.63	8	78	1.26	7.5	6.76	1
010	11/2/17 7:35 AM	B	CHARLES RIVER	MID-BASIN	7.7	0	0	0	14.68	23.83	0.56	6.4	37.53	1	6.3	
010	11/3/17 7:19 AM	S	CHARLES RIVER	MID-BASIN	0.1	0.01	0.01	0.01	14.27	0.46	8.21	80.3	0.918	5.1	7.11	1.3
010	11/3/17 7:19 AM	B	CHARLES RIVER	MID-BASIN	8.4	0.01	0.01	0.01	14.39	24.71	2.01	22.9	38.8	2.9	6.46	
166	1/3/17 9:51 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.89	0.89	0.96	2.19	0.87	12.22	89.3	1.738	4.7	7.56	
166	1/3/17 9:51 AM	B	CHARLES RIVER	LOWER BASIN	0.89	0.89	0.96	0.96	2.12	0.87	12.08	88.1	1.745	11.4	7.54	
166	1/18/17 10:31 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.36	0.66	0.66	2.01	0.79	12.92	94	1.578	5	7.39	
166	1/18/17 10:31 AM	B	CHARLES RIVER	LOWER BASIN	0.36	0.66	0.66	0.66	1.97	0.79	12.99	94.3	1.576	6.6	7.36	
166	1/30/17 9:56 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	2.77	0.51	12.85	95.2	1.037	5.5	7.62	



2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
166	1/30/17 9:56 AM	B	CHARLES RIVER	LOWER BASIN		0	0	0	2.77	0.51	12.46	92.3	1.04	6.3	7.59	
166	2/28/17 9:41 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	6.73	0.87	11.82	97.3	1.711	3.8	7.36	
166	2/28/17 9:41 AM	B	CHARLES RIVER	LOWER BASIN		0	0	0	6.7	0.87	11.61	95.5	1.713	5.4	7.36	
166	3/13/17 8:41 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.02	1.47	0.7	14.39	103	1.422	5.4	7.57	
166	3/13/17 8:41 AM	B	CHARLES RIVER	LOWER BASIN		0	0	0.02	1.72	0.71	13.43	96.8	1.427	8.1	7.46	
166	3/23/17 8:19 AM	S	CHARLES RIVER	LOWER BASIN		0	0	0								1.5
166	3/27/17 7:23 AM	S	CHARLES RIVER	LOWER BASIN		0.48	0.48	0.56								1.5
166	3/28/17 7:16 AM	S	CHARLES RIVER	LOWER BASIN		0.72	1.2	1.2								1.7
166	3/29/17 7:35 AM	S	CHARLES RIVER	LOWER BASIN		0.06	0.78	1.26								1.3
166	3/29/17 9:26 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.06	0.78	1.26	4.55	0.82	12.15	94.5	1.625	20.6	8.68	1.3
166	3/29/17 9:26 AM	B	CHARLES RIVER	LOWER BASIN		0.06	0.78	1.26	4.46	0.82	12.5	97	1.637	7.6	6.66	
166	3/30/17 7:52 AM	S	CHARLES RIVER	LOWER BASIN		0	0.06	0.78								1.1
166	3/31/17 7:47 AM	S	CHARLES RIVER	LOWER BASIN		0.87	0.87	0.93								1
166	4/14/17 8:22 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.02	13.16	0.34	10.38	99.1	0.684	7.45		
166	4/14/17 8:22 AM	B	CHARLES RIVER	LOWER BASIN		0	0	0.02	13.07	0.34	10.19	97.1	0.685	7.32		
166	4/25/17 9:04 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.89	0.89	0.89	13.34	0.42	10	95.9	0.856	7.56		
166	4/25/17 9:04 AM	B	CHARLES RIVER	LOWER BASIN		0.89	0.89	0.89	13.32	0.43	9.59	91.9	0.874	7.44		
166	5/1/17 7:16 AM	S	CHARLES RIVER	LOWER BASIN		0	0.01	0.01								1.4
166	5/3/17 7:04 AM	S	CHARLES RIVER	LOWER BASIN		0	0.19	0.19								1.1
166	5/11/17 9:20 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	14.13	0.41	8.4	81.9	0.838	7.42		
166	5/11/17 9:20 AM	B	CHARLES RIVER	LOWER BASIN		0	0	0	13.99	0.45	8.01	78	0.899	7.31		
166	5/22/17 8:57 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.12	0.12	0.12	18.36	0.38	7.54	80.4	0.782	7.31		
166	5/22/17 8:57 AM	B	CHARLES RIVER	LOWER BASIN		0.12	0.12	0.12	18.36	0.38	7.48	79.8	0.782	7.28		
166	6/5/17 8:34 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.59	0.77	0.77	18.14	0.41	7.7	81.8	0.838	6.5	7.46	
166	6/5/17 8:34 AM	B	CHARLES RIVER	LOWER BASIN		0.59	0.77	0.77	18.26	0.41	7.06	75.2	0.841	6.6	7.32	
166	6/7/17 8:28 AM	S	CHARLES RIVER	LOWER BASIN		0.04	0.84	1.43								0.9
166	6/8/17 7:13 AM	S	CHARLES RIVER	LOWER BASIN		0	0.04	0.84								0.7
166	6/13/17 7:36 AM	S	CHARLES RIVER	LOWER BASIN		0.53	0.53	0.53								1
166	6/14/17 7:30 AM	S	CHARLES RIVER	LOWER BASIN		0	0.53	0.53								0.8
166	6/15/17 7:07 AM	S	CHARLES RIVER	LOWER BASIN		0	0	0.53								1
166	6/16/17 7:07 AM	S	CHARLES RIVER	LOWER BASIN		2.13	2.13	2.13								0.9
166	6/19/17 8:57 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.03	0.03	0.05	23.33	0.31	7.09	83.3	0.643	8.6	7.52	
166	6/19/17 8:57 AM	B	CHARLES RIVER	LOWER BASIN		0.03	0.03	0.05	23.31	0.31	6.85	80.5	0.642	10.8	7.28	
166	7/7/17 8:14 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.3	0.3	0.3	25.26	0.5	8.51	103.7	1.024	2.8	8.38	
166	7/7/17 8:14 AM	B	CHARLES RIVER	LOWER BASIN		0.3	0.3	0.3	25.32	0.51	8.16	99.6	1.03	7	7.86	
166	7/13/17 7:22 AM	S	CHARLES RIVER	LOWER BASIN		0.14	1.47	1.64								1.4
166	7/14/17 7:37 AM	S	CHARLES RIVER	LOWER BASIN		0	0.14	1.47								1.5
166	7/17/17 7:28 AM	S	CHARLES RIVER	LOWER BASIN		0	0	0								1.5
166	7/18/17 7:27 AM	S	CHARLES RIVER	LOWER BASIN		0.12	0.12	0.12								1
166	7/21/17 9:17 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	27.1	0.48	9.48	119.5	0.972	2.4	7.92	
166	8/1/17 8:55 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	23.32	0.57	9.46	111.3	1.154	6.4	7.82	
166	8/1/17 8:55 AM	B	CHARLES RIVER	LOWER BASIN		0	0	0	23.15	0.58	9.48	111.2	1.159	8.8	7.78	
166	8/14/17 8:38 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.1	24.8	0.44	11.13	134.6	0.907	5.7	8.24	
166	8/14/17 8:38 AM	B	CHARLES RIVER	LOWER BASIN		0	0	0.1	24.61	0.45	11.15	134.3	0.912	9.7	8.69	
166	8/22/17 7:39 AM	S	CHARLES RIVER	LOWER BASIN		0	0	0								1.5
166	8/23/17 7:31 AM	S	CHARLES RIVER	LOWER BASIN		0.04	0.04	0.04								1.4
166	8/24/17 7:30 AM	S	CHARLES RIVER	LOWER BASIN		0	0.04	0.04								1.5
166	8/25/17 7:35 AM	S	CHARLES RIVER	LOWER BASIN		0	0	0.04								1.4
166	8/28/17 7:26 AM	S	CHARLES RIVER	LOWER BASIN		0	0	0								1.4
166	8/30/17 9:13 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.07	0.07	0.07	22.27	0.82	7.86	90.8	1.622	7.57		
166	8/30/17 9:13 AM	B	CHARLES RIVER	LOWER BASIN		0.07	0.07	0.07	22.33	0.82	7.42	85.8	1.63	7.49		
166	9/1/17 7:34 AM	S	CHARLES RIVER	LOWER BASIN		0	0	0.07								1.2
166	9/6/17 7:23 AM	S	CHARLES RIVER	LOWER BASIN		0.22	0.22	0.22								1.1
166	9/12/17 9:14 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	21.32	0.88	10.24	116.1	1.739	4.6	7.83	
166	9/12/17 9:14 AM	B	CHARLES RIVER	LOWER BASIN		0	0	0	21.23	0.89	10.71	121.3	1.754	10.5	8.22	
166	9/18/17 7:27 AM	S	CHARLES RIVER	LOWER BASIN		0	0	0								2.5
166	9/19/17 7:18 AM	S	CHARLES RIVER	LOWER BASIN		0.04	0.04	0.04								2.1

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
166	9/26/17 9:03 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	21.87	0.91	9.29	106.5	1.784		7.63	
166	9/26/17 9:03 AM	B	CHARLES RIVER	LOWER BASIN		0	0	0	21.15	0.95	8.87	100.3	1.858		7.64	
166	10/13/17 9:27 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.01	18.52	1.13	9.41	101.1	2.2	3.6	7.55	
166	10/13/17 9:27 AM	B	CHARLES RIVER	LOWER BASIN		0	0	0.01	18.51	1.14	9.26	99.5	2.206	14.2	7.65	
166	10/24/17 7:48 AM	S	CHARLES RIVER	LOWER BASIN		0.07	0.07	0.07								1.5
166	10/24/17 9:11 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.07	0.07	0.07	16.58	1.22	10.15	104.9	2.361	1.7	7.42	
166	10/24/17 9:11 AM	B	CHARLES RIVER	LOWER BASIN		0.07	0.07	0.07	16.57	1.22	10.83	111.9	2.36	2.7	7.86	
166	10/25/17 7:30 AM	S	CHARLES RIVER	LOWER BASIN		1.29	1.36	1.36								1.5
166	10/26/17 7:27 AM	S	CHARLES RIVER	LOWER BASIN		0.35	1.64	1.71								1.3
166	10/27/17 7:48 AM	S	CHARLES RIVER	LOWER BASIN		0	0.35	1.64								1.1
166	10/31/17 7:59 AM	S	CHARLES RIVER	LOWER BASIN		0	0.94	1.94								0.6
166	11/1/17 7:35 AM	S	CHARLES RIVER	LOWER BASIN		0	0	0.94								0.6
166	11/2/17 7:24 AM	S	CHARLES RIVER	LOWER BASIN		0	0	0								1
166	11/3/17 7:28 AM	S	CHARLES RIVER	LOWER BASIN		0.01	0.01	0.01								1.2
166	11/6/17 10:09 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.08	0.08	0.08	14	0.53	8.93	86.9	1.064		7.32	
166	11/6/17 10:09 AM	B	CHARLES RIVER	LOWER BASIN		0.08	0.08	0.08	13.99	0.53	8.6	83.7	1.064		7.27	
166	11/20/17 10:09 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.23	0.32	6.45	0.49	12.3	100.2	0.999		7.62	
166	11/20/17 10:09 AM	B	CHARLES RIVER	LOWER BASIN		0	0.23	0.32	6.41	0.5	11.55	94	1.003	8.9	7.41	
166	12/4/17 10:24 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	5.18	0.45	12.08	95.3	0.92	1	7.36	
166	12/4/17 10:24 AM	B	CHARLES RIVER	LOWER BASIN		0	0	0	5.02	0.46	11.73	92.2	0.925	9.3	7.3	
166	12/20/17 10:10 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	1.09	0.69	12.35	87.5	1.39	1.5	7.14	
166	12/20/17 10:10 AM	B	CHARLES RIVER	LOWER BASIN		0	0	0	0.96	0.67	12.49	88.2	1.366	5.6	7.08	
011	3/23/17 8:11 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	3.23	1.12	13.86	104.4	2.195	7	7.62	1.3
011	3/23/17 8:11 AM	B	CHARLES RIVER	LOWER BASIN	5.9	0	0	0	3.35	20.37	9.4	81	33.31	8.7	7.54	
011	3/27/17 7:15 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.48	0.48	0.56	3.83	0.93	12.85	98.2	1.848	6.4	8.28	1.6
011	3/27/17 7:15 AM	B	CHARLES RIVER	LOWER BASIN	5.6	0.48	0.48	0.56	3.4	21.33	9.78	84.9	34.74	8.2	7.74	
011	3/28/17 7:08 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.72	1.2	1.2	4.01	0.97	11.84	90.9	1.916	7.5	7.41	1.6
011	3/28/17 7:08 AM	B	CHARLES RIVER	LOWER BASIN	5.7	0.72	1.2	1.2	3.56	17.21	9.95	84.3	28.5	7.5	7.43	
011	3/29/17 7:28 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.06	0.78	1.26	4.43	0.88	12.92	100.2	1.743	5.8	7.53	1.3
011	3/29/17 7:28 AM	B	CHARLES RIVER	LOWER BASIN	5.1	0.06	0.78	1.26	4.31	1.52	12.69	98.6	2.933	7.2	7.4	
011	3/30/17 6:52 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.06	0.78	4.58	0.83	12.51	97.4	1.648	4.1	8.19	1.2
011	3/30/17 6:52 AM	B	CHARLES RIVER	LOWER BASIN	4.4	0	0.06	0.78	4.53	0.96	12.32	96	1.894	7.2	7.96	
011	3/31/17 6:45 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.87	0.87	0.93	5.44	0.76	12.38	98.6	1.506	7.2	7.35	1.1
011	3/31/17 6:45 AM	B	CHARLES RIVER	LOWER BASIN	5.3	0.87	0.87	0.93	4.82	4.7	11.68	93.9	8.509	6.8	7.25	
011	4/26/17 7:44 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.56	1.45	1.45	12.98	0.65	9.58	91.2	1.289		7.22	
011	4/27/17 7:12 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.56	1.45	13.06	0.48	9.61	91.6	0.965		7.18	
011	4/28/17 7:39 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.01	0.01	0.57	13.64	0.47	9.41	90.9	0.95		7.12	
011	4/29/17 7:05 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.01	0.01								
011	4/30/17 7:00 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.01	0.01	0.02								
011	5/1/17 7:12 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.01	0.01	15.19	0.48	8.77	87.6	0.973	8.3	7.3	1.5
011	5/1/17 7:12 AM	B	CHARLES RIVER	LOWER BASIN	5.8	0	0.01	0.01	13.88	7.92	8.02	81.5	13.66	8.7	7.09	
011	5/3/17 7:01 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.19	0.19	14.5	0.46	8.87	87.3	0.921	4.1	7.95	1.1
011	5/3/17 7:01 AM	B	CHARLES RIVER	LOWER BASIN	4.6	0	0.19	0.19	14.47	0.99	7.92	78.1	1.924	7.5	7.57	
011	5/5/17 7:27 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.64	0.64	0.64	14.2	0.56	9.53	93.2	1.128		7.4	
011	5/26/17 7:41 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.55	1.18	1.18	17.43	0.48	6.67	69.8	0.967		6.87	
011	5/27/17 7:02 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.55	1.18								
011	5/28/17 6:34 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.55								
011	5/29/17 6:35 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.05	0.05	0.05								
011	5/30/17 7:12 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.05	0.05	17.05	0.57	6.35	66	1.149	1.5	7.23	
011	6/6/17 6:59 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.8	1.39	1.57	16.71	0.63	7.27	75	1.262	6.9	6.97	
011	6/7/17 8:15 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.04	0.84	1.43	16.53	0.51	7.58	77.9	1.02	6	6.88	0.9
011	6/7/17 8:15 AM	B	CHARLES RIVER	LOWER BASIN	5.6	0.04	0.84	1.43	16.23	2.46	6.68	69	4.572	6.2	6.79	
011	6/8/17 7:00 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.04	0.84	16.51	0.48	7.36	75.6	0.958	4.1	6.94	1.1
011	6/8/17 7:00 AM	B	CHARLES RIVER	LOWER BASIN	5.8	0	0.04	0.84	15.79	5.59	6.63	69.2	9.872	6.7	6.59	
011	6/9/17 7:07 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.04	16.79	0.51	7.48	77.3	1.032	8	7.1	
011	6/13/17 7:16 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.53	0.53	0.53	22.45	0.35	7.97	92.1	0.71	2	7.96	0.8
011	6/13/17 7:16 AM	B	CHARLES RIVER	LOWER BASIN	5.8	0.53	0.53	0.53	18.38	8.43	6.56	73.4	14.48	13.4	7.3	

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
011	6/14/17 7:22 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.53	0.53	22.85	0.38	7.31	85.1	0.776	3.6	7.26	0.9
011	6/14/17 7:22 AM	B	CHARLES RIVER	LOWER BASIN	5.3	0	0.53	0.53	19.4	5.78	6.16	69.3	10.2	6.2	6.85	
011	6/15/17 7:05 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.53	22.85	0.38	7.31	85.1	0.776	3.6	7.26	1.1
011	6/15/17 7:05 AM	B	CHARLES RIVER	LOWER BASIN	5.9	0	0	0.53	19.4	5.78	6.16	69.3	10.2	6.2	6.85	
011	6/16/17 6:59 AM	S	CHARLES RIVER	LOWER BASIN	0.1	2.13	2.13	2.13	22.62	0.42	7.41	86	0.848	3.6	6.85	1
011	6/16/17 6:59 AM	B	CHARLES RIVER	LOWER BASIN	6.4	2.13	2.13	2.13	17.65	17.17	6.47	75.2	27.83	5.3	6.61	
011	7/13/17 7:21 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.14	1.47	1.64	24.69	0.84	6.34	76.6	1.668	3.5	7.93	0.9
011	7/13/17 7:21 AM	B	CHARLES RIVER	LOWER BASIN	5.9	0.14	1.47	1.64	20.87	11.76	4.57	54.8	19.69	7.1	7.37	
011	7/14/17 7:31 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.14	1.47	23.69	0.73	6.02	71.4	1.45	2.2	6.77	1.6
011	7/14/17 7:31 AM	B	CHARLES RIVER	LOWER BASIN	6.7	0	0.14	1.47	19.24	16.97	4.75	56.9	27.54	4	6.42	
011	7/15/17 6:22 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.14								
011	7/16/17 6:22 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0								
011	7/17/17 7:18 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	24.05	0.63	6.33	75.5	1.268	3.3	7.05	1.8
011	7/17/17 7:18 AM	B	CHARLES RIVER	LOWER BASIN	6.2	0	0	0	19.37	15.72	4.31	51.3	25.68	2.9	7.05	
011	7/18/17 7:13 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.12	0.12	0.12	25.25	0.54	7.47	91.1	1.1	2.4	6.74	1.5
011	7/18/17 7:13 AM	B	CHARLES RIVER	LOWER BASIN	5.4	0.12	0.12	0.12	20.51	12.81	4.68	56	21.3	4.7	6.34	
011	8/19/17 8:18 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.01	0.25	0.25								
011	8/20/17 7:08 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.01	0.25								
011	8/21/17 8:05 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.01	24.36	0.55	8.86	106.2	1.102	4.2	7.21	
011	8/22/17 7:36 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	24.65	0.56	8.61	103.8	1.133	0.8	7.14	1.3
011	8/22/17 7:36 AM	B	CHARLES RIVER	LOWER BASIN	6.4	0	0	0	18.59	24.36	4.87	60.2	38.25	3	6.98	
011	8/23/17 7:14 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.04	0.04	0.04	25.1	0.63	8.09	98.5	1.266	2.1	7.37	1.3
011	8/23/17 7:14 AM	B	CHARLES RIVER	LOWER BASIN	6.2	0.04	0.04	0.04	18.99	23.49	5.52	68.4	37.02	7.9	7.37	
011	8/24/17 7:30 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.04	0.04	24.92	0.66	8	97.1	1.328	2.1	6.54	1.6
011	8/24/17 7:30 AM	B	CHARLES RIVER	LOWER BASIN	6	0	0.04	0.04	18.88	23.78	5.76	71.3	37.42	2.6	6.57	
011	8/25/17 7:35 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.04	24.57	0.75	8.09	97.5	1.487	1.4	7.12	1.6
011	8/25/17 7:35 AM	B	CHARLES RIVER	LOWER BASIN	6.1	0	0	0.04	18.89	23.46	5.1	63.1	36.97	6.3	7.2	
011	8/28/17 7:19 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	23.44	0.82	7.9	93.3	1.634	2.9	7.04	1.4
011	8/28/17 7:19 AM	B	CHARLES RIVER	LOWER BASIN	5.6	0	0	0	18.33	24.84	5.25	64.7	38.93	4.7	6.69	
011	9/1/17 7:35 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.07	21.61	0.95	8.15	93	1.865	3.4	7.08	1.4
011	9/1/17 7:35 AM	B	CHARLES RIVER	LOWER BASIN	6	0	0	0.07	17.91	26.04	4.52	55.7	40.63	2.8	7.02	
011	9/6/17 7:24 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.22	0.22	0.22	21.05	0.99	9.36	105.7	1.945	3.4	7.64	1.2
011	9/6/17 7:24 AM	B	CHARLES RIVER	LOWER BASIN	6.5	0.22	0.22	0.22	17.89	25.28	3	36.8	39.55	5.9	6.85	
011	9/18/17 7:26 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	22.19	0.97	7.39	85.3	1.912	0.6	6.88	2.6
011	9/18/17 7:26 AM	B	CHARLES RIVER	LOWER BASIN	6.2	0	0	0	17.84	23.19	3.7	44.8	36.58	8.6	6.64	
011	9/19/17 7:13 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.04	0.04	0.04	21.5	1.13	6.6	75.2	2.206	1.8	6.73	2.1
011	9/19/17 7:13 AM	B	CHARLES RIVER	LOWER BASIN	5.5	0.04	0.04	0.04	19.33	16.18	1.31	15.7	26.38	6.8	6.33	
011	9/20/17 6:52 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.27	0.31	0.31	20.9	1.06	6.39	71.9	2.065	5.1	6.67	
011	9/21/17 7:23 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.27	0.31	20.85	1.15	6.54	73.7	2.243	6.98		
011	9/22/17 7:03 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.16	0.16	0.43	20.2	1.27	6.68	74.3	2.454	2.7	6.37	
011	10/24/17 7:40 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.07	0.07	0.07	16.8	1.31	10.73	111.4	2.52	4.7	6.99	2.5
011	10/24/17 7:40 AM	B	CHARLES RIVER	LOWER BASIN	5.8	0.07	0.07	0.07	16.28	25.05	2.58	30.7	39.24	5.3	6.23	
011	10/25/17 7:23 AM	S	CHARLES RIVER	LOWER BASIN	0.1	1.29	1.36	1.36	17.79	1.15	9.67	102.4	2.24	6.4	7.68	1.1
011	10/25/17 7:23 AM	B	CHARLES RIVER	LOWER BASIN	5.9	1.29	1.36	1.36	16.52	23.17	2.59	30.5	36.56	8.7	6.81	
011	10/26/17 7:29 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.35	1.64	1.71	17.53	1.19	8.98	94.6	2.308	6.1	6.44	1.1
011	10/26/17 7:29 AM	B	CHARLES RIVER	LOWER BASIN	5.7	0.35	1.64	1.71	16.9	19.97	2.62	30.5	31.95	9.7	5.89	
011	10/27/17 7:52 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.35	1.64	16.47	1.42	8.99	92.8	2.732	3.5	6.69	1.5
011	10/27/17 7:52 AM	B	CHARLES RIVER	LOWER BASIN	5.6	0	0.35	1.64	16.76	20.12	3.63	42.2	32.16	6.2	6.04	
011	10/28/17 6:38 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.35								
011	10/29/17 6:58 AM	S	CHARLES RIVER	LOWER BASIN	0.1	1	1	1								
011	10/30/17 7:39 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.94	1.94	1.94	16.11	1.86	8.46	86.9	3.52		6.65	
011	10/31/17 8:00 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.94	1.94	15.1	1.02	8.19	81.9	1.984	7	6.64	0.6
011	10/31/17 8:00 AM	B	CHARLES RIVER	LOWER BASIN	5.7	0	0.94	1.94	15.64	11.22	6.37	68.5	18.84	6.8	6.31	
011	11/1/17 7:29 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0.94	14.33	0.9	8.29	81.4	1.765	6	6.75	1
011	11/1/17 7:29 AM	B	CHARLES RIVER	LOWER BASIN	5.1	0	0	0.94	15.08	4.95	6.65	68.1	8.812	7.5	6.49	
011	11/2/17 7:25 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0	0	14.13	0.81	8.02	78.4	1.591	7.3	6.8	1.1
011	11/2/17 7:25 AM	B	CHARLES RIVER	LOWER BASIN	6.1	0	0	0	15.17	12.98	3.59	38.7	21.54	12	6.06	

2017 MWRA Central Lab Field Results

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011	11/3/17 7:09 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0.01	0.01	0.01	14.5	0.71	8.03	79.1	1.403	5	6.81	1.3
011	11/3/17 7:09 AM	B	CHARLES RIVER	LOWER BASIN	5.9	0.01	0.01	0.01	14.78	13.46	4.82	51.7	22.27	12.5	6.38	
011	11/4/17 6:55 AM	S	CHARLES RIVER	LOWER BASIN	0.1	0	0.01	0.01								
174	4/3/17 9:57 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	1.56								
174	4/4/17 8:26 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.68	0.68	0.68								
174	4/5/17 8:06 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.68	0.68								
174	4/6/17 10:10 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	1.36	1.36	2.04								
174	4/7/17 7:15 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	1.36	1.36								
174	4/8/17 8:45 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	1.36								
174	4/9/17 8:15 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
174	4/10/17 9:35 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
174	4/11/17 8:13 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
174	4/12/17 8:45 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.02	0.02	0.02								
174	5/6/17 7:50 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.1	0.74	0.74								
174	5/7/17 8:00 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.1	0.74								
174	5/8/17 7:55 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.1								
174	5/9/17 8:25 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
174	5/10/17 9:15 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
174	5/15/17 8:15 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.07	1.02	1.04								
174	5/16/17 8:15 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.07	1.02								
174	5/17/17 7:51 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.07								
174	5/18/17 9:30 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.05	0.05	0.05								
174	5/19/17 8:30 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	0.06	0.06								
174	6/20/17 8:30 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.13	0.16	0.16								
174	6/21/17 8:00 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.13	0.16								
174	6/22/17 8:00 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.13								
174	6/23/17 8:09 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
174	6/27/17 8:00 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.08	0.08	0.08								
174	6/28/17 7:50 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.08	0.08								
174	6/29/17 8:10 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.08								
174	6/30/17 9:37 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.07	0.07	0.07								
174	7/1/17 9:28 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.11	0.18	0.18								
174	7/2/17 8:25 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.11	0.18								
174	7/3/17 8:35 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.11								
174	7/4/17 9:15 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
174	7/24/17 8:45 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	1.41	1.41	1.41								
174	7/25/17 8:20 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	1.42	1.42								
174	7/26/17 7:50 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.01	1.42								
174	7/27/17 7:55 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.04	0.04	0.05								
174	7/28/17 8:00 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.04	0.04								
174	7/29/17 8:00 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.04								
174	9/7/17 8:28 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.6	0.82	0.82								
174	9/8/17 8:35 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.6	0.82								
174	9/9/17 7:08 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	0.01	0.61								
174	9/10/17 8:18 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.01	0.01								
174	9/11/17 8:45 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.01								
174	9/14/17 8:16 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.33	0.36	0.36								
174	10/16/17 8:30 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.1								
174	10/17/17 9:11 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
174	10/18/17 8:30 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
174	10/19/17 8:12 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
174	10/20/17 8:55 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
174	11/14/17 9:20 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.13	0.13								
174	11/17/17 9:55 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.19	0.19								
174	11/27/17 11:08 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
174	11/28/17 11:30 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
174	11/29/17 10:38 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								

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Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
174	11/30/17 9:50 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
174	12/11/17 9:50 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.03	0.69								
174	12/13/17 9:50 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.04	0.04								
074	4/3/17 10:04 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	1.56	6.97	0.86	11.59	95.9	1.704	10		
074	4/4/17 8:33 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.68	0.68	0.68	7.74	0.94	10.91	92.1	1.839	20.6	7.21	
074	4/5/17 8:12 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.68	0.68	6.68	0.83	11.34	93.2	1.641	14.7	7.23	
074	4/6/17 10:18 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	1.36	1.36	2.04	6.93	0.8	11.35	93.8	1.587	9.6	7.35	
074	4/7/17 7:27 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	1.36	1.36	7.06	0.64	11.02	91.3	1.271	28.4	7.27	
074	4/8/17 8:57 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	1.36								
074	4/9/17 8:20 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
074	4/10/17 9:45 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	10.93	0.77	10.51	95.6	1.528	8	7.51	
074	4/11/17 8:23 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	12.02	0.78	9.5	88.6	1.54		7.33	
074	4/12/17 8:54 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.02	0.02	0.02	14.71	0.78	9.62	95.3	1.548		7.27	
074	5/6/17 7:54 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.1	0.74	0.74								
074	5/7/17 8:06 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.1	0.74								
074	5/8/17 8:09 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.1	13.72	0.69	9.47	91.7	1.365		7.46	
074	5/9/17 8:31 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	13.28	0.67	10.11	96.9	1.337		7.58	
074	5/10/17 9:31 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	14.04	0.66	7.9	77	1.319		7.65	
074	5/15/17 8:24 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.07	1.02	1.04	11.68	0.62	9.38	86.8	1.239		7.38	
074	5/16/17 8:22 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.07	1.02	13.66	0.65	7.15	69.1	1.293		7.51	
074	5/17/17 7:59 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.07	15.99	0.67	8.71	88.5	1.324		7.52	
074	5/18/17 9:35 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.05	0.05	0.05	20.14	0.72	8.32	92.1	1.429		7.47	
074	5/19/17 8:43 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	0.06	0.06	20.8	0.63	6.96	78	1.269		7.32	
074	6/20/17 8:37 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.13	0.16	0.16	22.13	0.6	4.24	48.8	1.208	6.9	7.36	
074	6/21/17 8:11 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.13	0.16	21.92		6.72	76.7		4.3	7.29	
074	6/22/17 8:07 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.13	21.39	0.57	4.9	55.6	1.151	12.9	7.39	
074	6/23/17 8:14 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	21.42	0.56	3.81	43.2	1.118		7.19	
074	6/27/17 8:10 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.08	0.08	0.08	19.79	0.62	3.77	41.4	1.232	5.4	7.29	
074	6/28/17 8:01 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.08	0.08	18.86	0.5	5.96	64.3	1.002	10.1	7.29	
074	6/29/17 8:19 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.08	19.94	0.6	4.37	48.1	1.198	8.8	7.34	
074	6/30/17 9:45 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.07	0.07	0.07	20.18	0.41	3.11	34.4	0.835	10.6	7.28	
074	7/1/17 9:34 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.11	0.18	0.18								
074	7/2/17 8:30 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.11	0.18								
074	7/3/17 8:47 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.11	22.94	0.61	3.4	39.7	1.218	7.8	7.39	
074	7/4/17 9:20 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
074	7/24/17 8:53 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	1.41	1.41	1.41	18.8		4.18	44.9		8.7	7.24	
074	7/25/17 8:31 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	1.42	1.42	18.9	0.44	4.89	52.7	0.894	11	7.32	
074	7/26/17 8:00 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.01	1.42	18.89	0.55	6.17	66.5	1.112	18.3	7.46	
074	7/27/17 8:09 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.04	0.04	0.05	19.67	0.56	5.19	56.9	1.12	10.9	7.28	
074	7/28/17 8:12 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.04	0.04	20.5	0.57	6.35	70.8	1.147	7.9	7.43	
074	7/29/17 8:05 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.04								
074	9/7/17 8:33 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.6	0.82	0.82	19.15	0.45	3.42	37.1	0.914	9.6	7.2	
074	9/8/17 8:46 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.6	0.82	18.94	0.6	7.64	82.5	1.206	22.8	7.3	
074	9/9/17 7:12 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	0.01	0.61								
074	9/10/17 8:28 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.01	0.01								
074	9/11/17 8:57 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.01	17.09	0.58	6.81	70.8	1.164	4.7	7.4	
074	9/14/17 8:30 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.33	0.36	0.36	19.2	0.61	5.74	62.4	1.212	9.1	7.44	
074	10/16/17 8:41 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.1	16.38	0.61	6.35	65.1	1.216		7.46	
074	10/17/17 9:20 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	10.99	0.61	5.85	53.2	1.216	11.9	7.29	
074	10/18/17 8:48 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	11.64	0.59	7.03	64.9	1.182		7.51	
074	10/19/17 8:17 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	11.63	0.63	9.83	90.8	1.25	3.9	7.31	
074	10/20/17 9:03 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	15.03	0.62	8.6	85.7	1.241		7.35	
074	11/14/17 9:30 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.13	0.13	6.6	0.58	9.14	74.8	1.158	10.2	7.13	
074	11/17/17 10:01 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.19	0.19	7.23	0.57	6.89	57.3	1.145	44.9	7.15	
074	11/27/17 11:29 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	7.03	0.58	8.06	66.7	1.17		7.59	
074	11/28/17 11:37 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	4.69	0.55	10.03	78.2	1.106	19	7.74	
074	11/29/17 10:46 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	7.88	0.6	9.95	84.1	1.21	9.6	7.41	

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074	11/30/17 9:55 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
074	12/11/17 9:56 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.03	0.69	4.24	0.86	8.27	63.9	1.698	0	6.86	
074	12/13/17 9:57 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.04	0.04	3.54	0.78	9.57	72.5	1.558	10.5	6.97	
277	10/16/17 8:22 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.1	16.6	0.62	4.41	45.4	1.228		7.33	
277	10/17/17 8:32 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	10.02	0.61	4.1	36.5	1.215	12.9	7.11	
277	10/18/17 8:21 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	11	0.62	5.95	54.1	1.231		7.39	
277	10/19/17 7:55 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	11.93	0.62	5.03	46.7	1.227	7.1	7.12	
277	10/20/17 8:41 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	13.42	0.62	4.47	43	1.236		7.12	
277	11/14/17 8:56 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.13	0.13	7.48	0.55	7.13	59.7	1.113	5.4	6.79	
277	11/17/17 9:21 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.19	0.19	6.97	0.56	5.72	47.3	1.125	9.8	6.78	
277	11/27/17 10:55 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	5.89	0.59	6.35	51	1.179		7.53	
277	11/28/17 10:59 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	3.43	0.71	11.56	87.2	1.43	0.5	7.43	
277	11/29/17 10:14 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	6.47	0.62	9.01	73.6	1.248	10.6	7.33	
277	11/30/17 9:25 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
277	12/11/17 9:37 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.03	0.69	4.3	0.95	7.23	56	1.883	8.6	6.69	
277	12/13/17 9:36 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.04	0.04	3.15	0.84	8.88	66.6	1.675		6.95	
172	4/3/17 9:44 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	1.56	6.53	0.87	11.67	95.5	1.708	10.2		
172	4/4/17 8:07 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.68	0.68	0.68	7.55	0.86	11.04	92.7	1.695	15	7.21	
172	4/5/17 7:51 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.68	0.68	6.62	0.83	11.5	94.3	1.645	14.9	7.2	
172	4/5/17 7:51 AM	B	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.68	0.68	6.62	0.83	10.95	89.8	1.645	15.6	7.15	
172	4/6/17 9:58 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	1.36	1.36	2.04	6.85	0.78	11.07	91.3	1.546	12.9	7.25	
172	4/7/17 7:03 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	1.36	1.36	6.48	0.62	10.9	88.9	1.236	17.3	7.23	
172	4/8/17 8:37 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	1.36								
172	4/9/17 8:05 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
172	4/10/17 9:28 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	10.24	0.78	10.4	93.1	1.548	7.4	7.43	
172	4/11/17 7:57 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	11.36	0.81	8.9	81.8	1.587		7.28	
172	4/12/17 8:31 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.02	0.02	0.02	13.67	0.8	8.45	81.8	1.573		7.23	
172	5/6/17 7:42 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.1	0.74	0.74								
172	5/7/17 7:53 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.1	0.74								
172	5/8/17 7:38 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.1	12.9	0.69	7.64	72.6	1.374		7.32	
172	5/9/17 8:10 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	11.39	0.68	8.87	81.5	1.354		7.47	
172	5/10/17 9:02 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	12.28	0.68	10.08	94.5	1.352		7.59	
172	5/15/17 8:04 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.07	1.02	1.04	11.62	0.58	8.36	77.2	1.157		7.29	
172	5/16/17 7:56 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.07	1.02	12.31	0.64	8.07	75.7	1.268		7.38	
172	5/17/17 7:38 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.07	15.49	0.67	7.44	74.9	1.329		7.36	
172	5/18/17 9:15 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.05	0.05	0.05	18.9	0.69	6.17	66.6	1.367		7.33	
172	5/19/17 8:17 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	0.06	0.06	18.86	0.6	4.86	52.4	1.208		7.19	
172	6/20/17 8:14 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.13	0.16	0.16	21.59	0.61	2.62	29.9	1.229	9.2	7.25	
172	6/21/17 7:44 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.13	0.16	20.53	0.58	2.71	30.2	1.166	5.7	7.18	
172	6/22/17 7:41 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.13	19.53	0.59	2.78	30.4	1.183	6.2	7.25	
172	6/23/17 7:47 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	21.16	0.62	2.55	28.8	1.236	4.8	7.08	
172	6/27/17 7:47 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.08	0.08	0.08	19.05	0.63	2.18	23.6	1.251	4	7.17	
172	6/28/17 7:28 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.08	0.08	18.16	0.46	6.22	66.1	0.937	11.2	7.22	
172	6/29/17 7:52 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.08	19.44	0.6	3.72	40.6	1.203	6.1	7.24	
172	6/30/17 9:18 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.07	0.07	0.07	19.56	0.62	3.48	38.1	1.232	4.7	7.57	
172	7/1/17 9:15 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.11	0.18	0.18								
172	7/2/17 8:05 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.11	0.18								
172	7/3/17 8:26 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.11	21.27	0.64	2.17	24.5	1.273	4	7.44	
172	7/4/17 9:03 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
172	7/24/17 8:29 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	1.41	1.41	1.41	20.02	0.61	3.17	34.9	1.215	5.9	7.24	
172	7/25/17 8:05 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	1.42	1.42	19.28	0.48	4.72	51.3	0.96	11.4	7.28	
172	7/26/17 7:42 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.01	1.42	17.98	0.55	6.34	67.2	1.095	6.6	7.43	
172	7/27/17 7:42 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.04	0.04	0.05	19.38	0.56	5.98	65.2	1.13	9.2	7.24	
172	7/28/17 7:46 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.04	0.04	18.95	0.56	5.56	60	1.126	8	7.38	
172	7/29/17 7:50 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.04								
172	9/7/17 8:07 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.6	0.82	0.82	19.09	0.44	4.59	49.7	0.886	9.3	7.18	
172	9/8/17 8:20 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.6	0.82	17.84	0.57	4.92	51.9	1.144	8.5	7.15	

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
172	9/9/17 6:55 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	0.01	0.61								
172	9/10/17 8:08 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.01	0.01								
172	9/11/17 7:54 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.01	14.89	0.59	4.53	44.9	1.178	4.9	7.22	
172	9/14/17 8:02 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.33	0.36	0.36	18.55	0.61	3.52	37.7	1.216	7.5	7.27	
172	10/16/17 8:18 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.1	16.68	0.62	5.4	55.7	1.23		7.3	
172	10/17/17 8:39 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	9.92	0.61	5.01	44.5	1.215	4.1	7.18	
172	10/18/17 8:16 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	10.58	0.62	5.76	51.9	1.229		7.35	
172	10/19/17 7:40 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	11.83	0.61	4.43	41.1	1.226	4.9	6.84	
172	10/20/17 8:36 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	13.23	0.62	4.61	44.1	1.24		7.08	
172	11/14/17 9:00 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.13	0.13	7.43	0.57	5.77	48.2	1.137	0.3	6.8	
172	11/17/17 9:24 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.19	0.19	6.98	0.56	9.35	77.2	1.126	1.3	6.81	
172	11/27/17 10:59 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	5.87	0.6	8.48	68.2	1.201		7.47	
172	11/28/17 11:05 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	3.42	0.6	10.25	77.3	1.21	2.8	7.42	
172	11/29/17 10:21 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	7.45	0.98	9.15	76.7	1.917	14.3	7.18	
172	11/30/17 9:32 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
172	12/11/17 9:40 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.03	0.69	4.33	0.95	9.47	73.4	1.87	1.6	6.73	
172	12/13/17 9:39 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.04	0.04	3.32	0.85	10.61	79.9	1.686	7.4	6.93	
276	10/16/17 8:11 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.1	16.88	0.62	5.41	56	1.23		7.28	
276	10/17/17 8:48 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	10.29	0.61	4.7	42.1	1.216	3.8	7.23	
276	10/18/17 8:10 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	10.84	0.61	5.83	52.8	1.222		7.34	
276	10/19/17 7:46 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	12.25	0.61	4.71	44.1	1.223	4.5	6.98	
276	10/20/17 8:29 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	13.56	0.62	4.39	42.3	1.239		6.96	
276	11/14/17 9:06 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.13	0.13	7.42	0.56	8.41	70.3	1.131	4.6	6.95	
276	11/17/17 9:33 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.19	0.19	7.06	0.56	9.2	76.1	1.116	7.5	6.97	
276	11/27/17 11:05 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	5.9	0.6	8.01	64.5	1.198		7.52	
276	11/28/17 11:12 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	3.36	0.39	11.4	85.7	0.8	2.2	7.43	
276	11/29/17 10:25 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	6.55	0.62	9.01	73.7	1.247	0	6.76	
276	11/30/17 9:21 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
276	12/11/17 9:23 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.03	0.69	4.33	0.96	8.44	65.4	1.897	2.8	6.65	
276	12/13/17 9:27 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.04	0.04	3.59	0.84	9.39	71.3	1.682	8.1	6.7	
070	4/3/17 9:34 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	1.56	6.27	0.86	11.67	94.9	1.692	9.7		
070	4/4/17 7:44 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.68	0.68	0.68	7.39	0.82	10.96	91.7	1.628	22.5	7.22	
070	4/5/17 7:34 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.68	0.68	6.66	0.85	11.12	91.3	1.685	16.4	7.06	
070	4/6/17 9:45 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	1.36	1.36	2.04	6.8	0.79	10.41	85.8	1.556	17.4	7.2	
070	4/7/17 6:47 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	1.36	1.36	6.45	0.62	10.81	88.2	1.24	21	7.18	
070	4/8/17 8:27 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	1.36							0.5	
070	4/9/17 7:55 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
070	4/10/17 9:18 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	9.92	0.78	9.68	86	1.546	10.5	7.41	
070	4/11/17 7:38 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	11.45	0.8	8.81	81.1	1.578		7.22	
070	4/12/17 7:44 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.02	0.02	0.02	13.94	0.79	7.52	73.3	1.567		7.14	
070	5/6/17 7:35 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.1	0.74	0.74								
070	5/7/17 7:46 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.1	0.74								
070	5/8/17 7:21 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.1	13.18	0.7	6.95	66.5	1.379		7.25	
070	5/9/17 7:50 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	11.19	0.69	8.11	74.2	1.362		7.37	
070	5/10/17 8:52 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	11.95	0.69	9.34	86.9	1.36		7.53	
070	5/15/17 7:46 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.07	1.02	1.04	11.56	0.59	8.6	79.3	1.169		7.28	
070	5/16/17 7:35 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.07	1.02	12.18	0.63	8.06	75.4	1.261		7.3	
070	5/17/17 7:19 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.07	15.76	0.67	7.04	71.2	1.335		7.16	
070	5/18/17 8:52 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.05	0.05	0.05	19.29	0.69	5.03	54.8	1.375		7.34	
070	5/19/17 8:01 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	0.06	0.06	20.29	0.61	3.67	40.8	1.218		7.12	
070	6/20/17 7:35 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.13	0.16	0.16	22.24	0.57	2.43	28	1.144	12.8	7.19	
070	6/21/17 7:23 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.13	0.16	21.53	0.59	1.48	16.8	1.177	4	7	
070	6/22/17 7:18 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.13	21.01	0.59	2.15	24.3	1.185	20	7.06	
070	6/23/17 7:31 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	22.62	0.62	1.36	15.8	1.248	4.6	6.92	
070	6/27/17 7:29 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.08	0.08	0.08	21.64	0.62	1.44	16.5	1.25	2.9	7.04	
070	6/28/17 7:08 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.08	0.08	17.92	0.46	2.73	28.9	0.939	31.5	6.97	
070	6/29/17 7:32 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.08	20.12	0.58	2.33	25.8	1.161	3.9	7.01	

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
070	6/30/17 9:02 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.07	0.07	0.07	20.2	0.61	2.9	32.1	1.22	3.8	7.92	
070	7/1/17 9:06 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.11	0.18	0.18								
070	7/2/17 7:55 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.11	0.18								
070	7/3/17 8:16 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.11	24.55	0.62	1.43	17.2	1.244	4.2	7.79	
070	7/4/17 8:56 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
070	7/24/17 7:56 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	1.41	1.41	1.41	24.41	0.22	6.41	76.8	0.466	3.2	7.19	
070	7/25/17 7:44 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	1.42	1.42	18.98	0.4	4.42	47.8	0.809	11.8	7.33	
070	7/26/17 7:23 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.01	1.42	18.08	0.55	4.11	43.7	1.104	6.4	7.11	
070	7/27/17 7:29 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.04	0.04	0.05	20.3	0.57	3.74	41.5	1.144	6.4	7.05	
070	7/28/17 7:27 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.04	0.04	19.77	0.58	3.09	34	1.157	7.8	7.01	
070	7/29/17 7:40 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.04								
070	9/7/17 7:35 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.6	0.82	0.82	18.99	0.25	4.88	52.7	0.517	12.4	7.31	
070	9/8/17 7:58 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.6	0.82	18.11	0.55	4.18	44.4	1.107	9.2	7.06	
070	9/9/17 6:46 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.01	0.01	0.61								
070	9/10/17 7:58 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.01	0.01								
070	9/11/17 7:34 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.01	17.08	0.6	5.76	59.9	1.205	5.7	7.1	
070	9/14/17 7:48 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0.33	0.36	0.36	20.03	0.61	5.69	62.8	1.227	8.9	7.18	
070	10/16/17 7:54 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0.1	17.13	0.62	3.45	35.9	1.234		7	
070	10/17/17 8:06 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	11.95	0.62	3.25	30.2	1.234	4.1	6.96	
070	10/18/17 7:51 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	10.19	0.61	4.99	44.5	1.22		7.05	
070	10/19/17 7:21 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	11.43	0.62	4.3	39.5	1.229	5.1	6.3	
070	10/20/17 8:08 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	12.89	0.62	3.87	36.8	1.238		6.45	
070	11/14/17 8:39 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.13	0.13	6.91	0.62	6.61	54.5	1.236	0	6.57	
070	11/17/17 9:02 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.19	0.19	7.46	0.6	6.14	51.3	1.199	1.9	6.47	
070	11/27/17 10:37 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	5.78	0.61	7.32	58.7	1.222		7.62	
070	11/28/17 10:45 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	3.36	0.6	11.59	87.3	1.214	1.1	7.54	
070	11/29/17 10:04 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0	5.79	0.62	9.82	78.8	1.235	0	7.3	
070	11/30/17 9:10 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0	0								
070	12/11/17 9:08 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.03	0.69	3.91	1.26	7.79	59.8	2.459	4.7	6.13	
070	12/13/17 9:10 AM	S	MYSTIC/ALEWIFE	ALEWIFE BROOK	0.1	0	0.04	0.04	4.2	0.97	7.27	56.1	1.916	6.2	6.63	
083	1/3/17 9:15 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.89	0.89	0.96	3.09	0.55	11.79	88.1	1.12	3.3	7.55	
083	1/18/17 9:52 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.36	0.66	0.66	3.06	0.54	12.44	92.9	1.098	4.2	7.38	
083	1/30/17 9:22 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	2.38	0.6	12.41	91	1.207	6.6	7.53	
083	2/28/17 9:01 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	5.08	0.72	10.34	81.5	1.44	3.3	7.41	
083	3/13/17 8:04 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.02	0.65	0.78	14.3	100.2	1.577	1.9	7.58	
083	3/29/17 8:52 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.06	0.78	1.26	4.48	0.71	12.08	93.8	1.415	7.1	7.35	
083	4/3/17 9:18 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	1.56	5.68	0.76	11.73	93.9	1.509	4.9		
083	4/4/17 7:27 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.68	0.68	0.68	5.28	0.78	10.86	86.1	1.551	6	7.22	
083	4/5/17 7:20 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.68	0.68	5.39	0.63	11.31	89.8	1.257	8.4	7.12	
083	4/6/17 9:29 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	1.36	1.36	2.04	5.36	0.72	11.83	93.9	1.431	7.3	7.27	
083	4/7/17 6:32 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	1.36	1.36	5.45	0.7	10.98	87.4	1.404	3.8	7.42	
083	4/8/17 8:10 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	1.36								
083	4/9/17 7:40 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0								
083	4/10/17 9:06 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	7.72	0.67	10.79	90.9	1.333	2.8	7.79	
083	4/11/17 7:23 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	8.15	0.65	10.59	90.1	1.305		7.38	
083	4/12/17 7:21 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.02	0.02	0.02	10.02	0.45	10.31	91.7	0.918		7.27	
083	4/14/17 7:47 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.02	9.56	0.61	10.68	93.9	1.212		7.37	
083	4/25/17 8:07 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.89	0.89	0.89	12.96	0.61	10.86	103.4	1.208		7.58	
083	5/6/17 7:28 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.1	0.74	0.74								
083	5/7/17 7:36 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.1	0.74								
083	5/8/17 7:03 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.1	13.05	0.53	9.71	92.6	1.071		7.3	
083	5/9/17 7:24 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	13.21	0.54	9.66	92.4	1.087		7.65	
083	5/10/17 8:38 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	13.3	0.57	9.79	93.9	1.144		7.64	
083	5/11/17 8:32 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	13.54	0.53	10.58	102	1.072		7.67	
083	5/15/17 7:32 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.07	1.02	1.04	12.47	0.53	9.78	92	1.066		7.39	
083	5/16/17 10:01 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.07	1.02	13.64	0.52	10.39	100.3	1.042	6.5	7.78	0.8
083	5/17/17 9:49 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.07	15.59	0.52	10.73	108.1	1.039	4.2	7.92	0.9



2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
083	5/17/17 9:49 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0	0	0.07	15.15	0.52	10.71	106.9	1.038	5.3	7.85	
083	5/18/17 8:45 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.05	0.05	0.05	17.96	0.52	9.68	102.4	1.048		7.87	
083	5/19/17 7:43 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.01	0.06	0.06	19.23	0.52	9.57	104	1.039		7.22	
083	5/22/17 8:13 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.12	0.12	0.12	16.92	0.5	10.13	104.9	1.013		7.75	
083	6/5/17 7:51 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.59	0.77	0.77	16.71	0.49	8.71	89.9	0.981	6.5	7.47	
083	6/19/17 8:13 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.03	0.03	0.05	21.93	0.44	8.47	97	0.904	16.6	7.79	
083	6/20/17 7:14 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.13	0.16	0.16	22.53	0.44	8.92	103.4	0.886	15.1	7.75	
083	6/21/17 9:31 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.13	0.16	24.38	0.45	11.94	143.1	0.909	17.7	9.14	0.5
083	6/21/17 9:31 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0	0.13	0.16	23.49	0.45	10.91	128.7	0.907	18.9	8.96	
083	6/22/17 9:34 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.13	24.24	0.44	11.85	141.7	0.899	18.5	9.37	0.6
083	6/22/17 9:34 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0	0	0.13	23.84	0.44	11.3	134.1	0.897	20	9.28	
083	6/23/17 9:24 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	24.89	0.45	11.91	144.2	0.911	25.6	9.31	0.5
083	6/27/17 9:25 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.08	0.08	0.08	24.28	0.44	11.47	137.3	0.904	28.7	9.61	0.4
083	6/27/17 9:25 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0.08	0.08	0.08	24.26	0.44	11.35	135.8	0.904	30.2	9.6	
083	6/28/17 10:21 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.08	0.08	23.17	0.45	10.85	127.2	0.914	25.4	9.41	
083	6/28/17 10:21 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0	0.08	0.08	23.07	0.45	10.69	125	0.913	32.5	9.41	
083	6/29/17 9:23 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.08	23.1	0.44	11.09	129.9	0.9	23.5	9.5	0.6
083	6/29/17 9:23 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0	0	0.08	23.08	0.44	11.24	131.5	0.9	24.4	9.51	
083	6/30/17 8:47 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.07	0.07	0.07	21.93	0.44	8.14	93.2	0.894	16.4	8.55	
083	7/1/17 8:55 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.11	0.18	0.18								
083	7/2/17 7:45 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.11	0.18								
083	7/3/17 7:57 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.11	25.87	0.2	8.87	109.2	0.419	22.7	8.57	
083	7/4/17 8:45 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0								
083	7/7/17 7:41 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.3	0.3	0.3	24.42		8.31	99.5		12.2	8.99	
083	7/21/17 8:40 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	27.36	0.41	6.27	79.3	0.844	3.8	7.5	
083	7/24/17 8:05 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	1.41	1.41	1.41	24.24	0.43	5.28	63.2	0.886	2.4	7.26	
083	7/25/17 7:27 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.01	1.42	1.42	22.45	0.35	6.72	77.7	0.713	3.3	7.54	
083	7/26/17 9:25 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.01	1.42	22.2	0.42	7.06	81.2	0.864	3.9	7.63	
083	7/26/17 9:25 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0	0.01	1.42	22.07	0.42	6.82	78.3	0.863	4.2	7.64	
083	7/27/17 9:19 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.04	0.04	0.05	21.8	0.42	6.33	72.2	0.856	3	7.53	
083	7/27/17 9:19 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0.04	0.04	0.05	21.76	0.42	6.11	69.7	0.856	4.5	7.5	
083	7/28/17 9:45 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.04	0.04	22.35	0.43	7.62	88	0.869	3.4	8.01	
083	7/28/17 9:45 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0	0.04	0.04	22.24	0.43	6.3	72.6	0.869	7.5	7.83	
083	7/29/17 7:28 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.04								
083	8/1/17 8:10 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	23.43	0.43	6.87	80.9	0.885	2.6	7.5	
083	8/14/17 8:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.1	24.09	0.45	4.95	59	0.919	3	7.43	
083	8/30/17 8:33 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.07	0.07	0.07	20.11	0.46	6.03	66.6	0.925		7.45	
083	9/7/17 7:28 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.6	0.82	0.82	20.18	0.41	7.1	78.5	0.832	3	7.26	
083	9/8/17 7:40 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.6	0.82	19.84	0.46	7.33	80.5	0.935	3.3		
083	9/9/17 6:37 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.01	0.01	0.61								
083	9/10/17 7:42 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.01	0.01								
083	9/11/17 7:15 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.01	18.47	0.49	7.06	75.5	0.984	1.9	6.72	
083	9/12/17 8:31 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	19.06	0.49	7.04	76.2	0.996	2.3	7.73	
083	9/14/17 7:31 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.33	0.36	0.36	21.38	0.47	6.76	76.6	0.958	1.3	6.91	
083	9/26/17 8:23 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	21.5	0.47	5.75	65.3	0.961		7.44	
083	10/13/17 8:37 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.01	16.09	0.49	6.93	70.5	0.98	3.3	7.61	
083	10/16/17 7:37 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.1	17.55	0.49	6.94	72.9	0.995		6.87	
083	10/17/17 7:45 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	14.58	0.5	6.22	61.3	1.001	2.1	6.65	
083	10/18/17 7:29 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	13.91	0.49	6.58	63.9	0.994		6.78	
083	10/19/17 8:33 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	13.74	0.34	6.85	66.2	0.683	5.8	7.5	
083	10/24/17 8:36 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.07	0.07	0.07	16.59	0.5	6.59	67.8	1.009	1	7.37	
083	11/6/17 9:30 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.08	0.08	0.08	14.61	0.46	7.22	71.2	0.935		7.27	
083	11/20/17 9:31 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.23	0.32	6.84	0.49	9.92	81.6	0.995	0.4	7.37	
083	11/27/17 10:20 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	7.03	0.49	8.48	70.1	0.993		7.89	
083	11/28/17 10:30 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	4		11.25	85.8		1.4	7.68	
083	11/29/17 9:50 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	7.17	0.33	10	82.9	0.675	6.6	7.33	
083	12/4/17 9:44 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	5.78	0.49	11.16	89.4	0.995	2.2	7.26	

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
083	12/20/17 9:26 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	3.34	0.51	11.46	86.2	1.044	3.5	6.97	
057	4/3/17 9:25 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	1.56	6.01	0.75	11.94	96.4	1.487	8		
057	4/4/17 7:34 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.68	0.68	0.68	5.15	0.75	11.73	92.7	1.491	5.7	7.25	
057	4/5/17 7:26 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.68	0.68	5.17	0.72	11.84	93.6	1.429	7	7.13	
057	4/6/17 9:35 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	1.36	1.36	2.04	5.29	0.73	12.06	95.6	1.457	5.7	7.29	
057	4/7/17 6:37 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	1.36	1.36	5.45	0.7	11.43	90.9	1.397	4	7.29	
057	4/8/17 8:17 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	1.36								
057	4/9/17 7:45 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0								
057	4/10/17 9:11 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	8.2	0.64	11.28	96.1	1.273	2.8	7.64	
057	4/11/17 7:32 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	7.63	0.64	10.72	90.1	1.282		7.3	
057	4/12/17 7:35 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.02	0.02	0.02	9.35	0.62	10.84	94.9	1.244		7.23	
057	5/6/17 7:31 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.1	0.74	0.74								
057	5/7/17 7:41 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.1	0.74								
057	5/8/17 7:11 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.1	12.87	0.53	10.02	95.1	1.058		7.38	
057	5/9/17 7:31 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	12.8	0.53	9.93	94.1	1.07		7.61	
057	5/10/17 8:45 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	13	0.44	10.58	100.7	0.88		7.72	
057	5/15/17 7:38 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.07	1.02	1.04	12.38	0.51	9.86	92.5	1.021		7.39	
057	5/16/17 9:55 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.07	1.02	13.6	0.52	10.43	100.7	1.044	6.6	7.84	
057	5/17/17 9:42 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.07	15.28	0.52	10.64	106.5	1.04	4.7	7.84	1
057	5/17/17 9:42 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	0	0	0.07	15.02	0.52	10.69	106.4	1.039	9.1	7.81	
057	5/18/17 8:59 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.05	0.05	0.05	18.11	0.52	9.84	104.5	1.037		7.61	
057	5/19/17 7:52 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.01	0.06	0.06	19.1	0.51	9.2	99.6	1.027		7.4	
057	6/20/17 7:22 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.13	0.16	0.16	22.38	0.44	8.83	102	0.896	14.9	7.92	
057	6/21/17 9:27 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.13	0.16	23.48	0.49	9.06	106.9	0.988	15.3	8.5	0.6
057	6/22/17 9:28 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.13	24.68	0.44	11.71	141.2	0.9	17.5	9.34	0.6
057	6/23/17 9:19 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	25.36	0.45	11.16	136.3	0.913	22	9.26	0.5
057	6/27/17 9:19 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.08	0.08	0.08	24.25	0.44	10.82	129.5	0.905	27.8	9.54	0.4
057	6/28/17 10:16 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.08	0.08	22.88	0.44	10.1	117.8	0.901	27.4	9.31	0.5
057	6/28/17 10:16 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	0	0.08	0.08	22.83	0.44	9.99	116.3	0.899	29.4	9.32	
057	6/29/17 9:18 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.08	22.98	0.44	10.72	125.2	0.901	23.7	9.41	0.5
057	6/30/17 8:55 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.07	0.07	0.07	21.92	0.29	8.57	98	0.591	19.5	8.76	
057	7/1/17 9:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.11	0.18	0.18								
057	7/2/17 7:50 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.11	0.18								
057	7/3/17 8:04 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.11	25.19	0.39	8.7	105.9	0.792	21.7	9.04	
057	7/4/17 8:49 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0								
057	7/24/17 8:16 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	1.41	1.41	1.41	21.53	0.61	1.45	16.5	1.229	5.9	7.13	
057	7/25/17 7:35 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.01	1.42	1.42	22.37	0.43	6.12	70.6	0.867	3.5	7.63	
057	7/26/17 9:19 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.01	1.42	21.93	0.42	6.42	73.5	0.864	3.8	7.58	
057	7/26/17 9:19 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	0	0.01	1.42	20.78	0.47	5.87	65.8	0.957	4.5	7.53	
057	7/27/17 9:12 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.04	0.04	0.05	21.91	0.42	6.46	74	0.855	2.7	7.57	
057	7/27/17 9:12 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	0.04	0.04	0.05	21.69	0.43	5.41	61.7	0.879	11.6	7.41	
057	7/28/17 9:40 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.04	0.04	22.34	0.43	6.96	80.3	0.871	3.3	7.91	
057	7/29/17 7:32 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.04								
057	9/7/17 7:46 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.6	0.82	0.82	20.05	0.44	6.13	67.7	0.884	4.5	7.16	
057	9/8/17 7:48 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.6	0.82	19.73	0.45	6.62	72.6	0.916	3.4	7.06	
057	9/9/17 6:39 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.01	0.61	0.61								
057	9/10/17 7:48 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.01	0.01								
057	9/11/17 7:22 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.01	18.51	0.48	6.26	67	0.962	1.8	6.95	
057	9/14/17 7:37 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.33	0.36	0.36	21.09	0.46	6.73	75.8	0.932	3.5	7.09	
057	10/16/17 7:44 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.1	17.2	0.51	6.51	67.9	1.029		6.93	
057	10/17/17 7:54 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	14.58	0.53	6.7	66	1.062	12.5	6.81	
057	10/18/17 7:39 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	13.45	0.54	6.26	60.2	1.073		6.92	
057	10/19/17 8:40 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	13.8	0.53	6.77	65.6	1.068	0.5	7.41	
057	11/27/17 10:28 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	6.97	0.36	10.01	82.6	0.742		7.83	
057	11/28/17 10:37 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	6.07	0.48	11.86	95.7	0.971	0	7.66	
057	11/29/17 9:56 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	7.11	0.5	10.74	89	1	0	7.33	
066	1/3/17 9:08 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.89	0.89	0.96	3.23	0.58	11.18	83.9	1.175	3.3	7.57	

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
066	1/3/17 9:08 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0.89	0.89	0.96	3.23	0.58	10.98	82.4	1.176	6.5	7.54	
066	1/18/17 9:41 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.36	0.66	0.66	3.12	0.58	12.15	90.9	1.179	4.4	7.38	
066	1/18/17 9:41 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0.36	0.66	0.66	3.14	0.58	11.99	89.7	1.182	4.6	7.35	
066	1/30/17 9:16 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	2.49	0.63	12.33	90.7	1.267	3.1	7.62	
066	1/30/17 9:16 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0	0	0	2.49	0.63	11.83	87.1	1.268	3	7.57	
066	2/14/17 9:18 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.09	0.86	0.85	1.12	11.63	82.1	2.223	2.7	7.33	
066	2/28/17 8:52 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	4.91	0.72	11.49	90.2	1.446	3.9	7.53	
066	2/28/17 8:52 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0	0	0	4.88	0.72	11.23	88.1	1.441	3.7	7.48	
066	3/13/17 7:56 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.02	1.15	0.82	14.15	100.5	1.646	3.4	7.65	
066	3/13/17 7:56 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0	0	0.02	1.22	0.88	13.18	93.9	1.759	4.3	7.49	
066	3/29/17 8:47 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.06	0.78	1.26	4.58	0.72	11.84	92.1	1.436	7.6	7.44	
066	3/29/17 8:47 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0.06	0.78	1.26	4.51	0.72	11.75	91.3	1.431	8.8	7.43	
066	4/14/17 7:37 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.02	9.88	0.65	10.55	93.6	1.298	7.6	7.38	
066	4/14/17 7:37 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0	0	0.02	9.9	0.65	10.31	91.5	1.296	7.34		
066	4/25/17 8:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.89	0.89	0.89	12.83	0.62	10.31	97.9	1.236	7.51		
066	4/25/17 8:00 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0.89	0.89	0.89	12.82	0.62	10.08	95.7	1.234	7.49		
066	5/11/17 8:21 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	13.44	0.55	10.08	96.9	1.099	7.62		
066	5/11/17 8:21 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0	0	0	13.44	0.55	9.97	95.9	1.097	7.56		
066	5/22/17 8:04 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.12	0.12	0.12	17.73	0.52	9.61	101.2	1.055	7.61		
066	5/22/17 8:04 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0.12	0.12	0.12	17.74	0.53	9.57	100.9	1.056	7.63		
066	6/5/17 7:44 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.59	0.77	0.77	17.26	0.5	8.78	91.6	1.002	7.3	7.53	
066	6/5/17 7:44 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0.59	0.77	0.77	17.25	0.5	8.28	86.3	1.004	10	7.43	
066	6/19/17 8:04 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.03	0.03	0.05	22.08	0.48	7.32	84	0.98	11.4	7.53	
066	6/19/17 8:04 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0.03	0.03	0.05	21.87	0.47	7.43	85	0.951	16.4	7.52	
066	7/7/17 7:33 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.3	0.3	0.3	24.56	0.46	7.43	89.4	0.944	12.2	8.77	
066	7/7/17 7:33 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0.3	0.3	0.3	24.55	0.47	7.22	86.9	0.951	11.5	8.81	
066	7/21/17 8:31 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	26.87	0.44	5.12	64.2	0.909	3.3	7.45	
066	7/21/17 8:31 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0	0	0	26.52	0.46	2.69	33.6	0.939	4.3	7.32	
066	8/1/17 8:01 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	22.63	0.46	6.76	78.5	0.929	3.7	7.67	
066	8/1/17 8:01 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0	0	0	22.31	0.56	2.88	33.2	1.13	8.2	7.37	
066	8/14/17 7:52 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.1	23.89	0.51	4.05	48.2	1.04	3.5	7.45	
066	8/14/17 7:52 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0	0	0.1	23.89	0.52	3.59	42.7	1.043	6.4	7.36	
066	8/30/17 8:24 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.07	0.07	0.07	19.81	0.52	5.19	57	1.049	7.53		
066	8/30/17 8:24 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0.07	0.07	0.07	19.85	0.53	4.54	49.9	1.063	7.41		
066	9/12/17 8:23 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	19.14	0.5	7.8	84.6	1.014	3.9	8.01	
066	9/12/17 8:23 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0	0	0	19.08	0.5	6.08	65.9	1.013	5.1	7.82	
066	9/26/17 8:14 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	21.2	0.52	4.44	50.2	1.056	7.5		
066	9/26/17 8:14 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0	0	0	21.14	0.53	3.17	35.8	1.064	7.36		
066	10/13/17 8:00 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.01	15.46	0.53	5.89	59.2	1.062	3.1	7.72	
066	10/13/17 8:00 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0	0	0.01	15.53	0.53	5.12	51.5	1.063	9.3	7.61	
066	10/24/17 8:26 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.07	0.07	0.07	15.95	0.55	5.49	55.7	1.109	3.6	7.48	
066	10/24/17 8:26 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0.07	0.07	0.07	15.94	0.55	4.47	45.4	1.111	3.5	7.28	
066	11/6/17 9:22 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.08	0.08	0.08	14.41	0.49	7.11	69.8	0.994	7.27		
066	11/6/17 9:22 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0.08	0.08	0.08	14.23	0.52	5.61	54.9	1.043	7.17		
066	11/20/17 9:24 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.23	0.32	7.22	0.49	9.83	81.7	0.991	0.9	7.4	
066	11/20/17 9:24 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0	0.23	0.32	7.25	0.49	9.24	76.8	0.994	2.2	7.33	
066	12/4/17 9:36 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	5.81	0.52	11.13	89.3	1.051	1.8	7.3	
066	12/4/17 9:36 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0	0	0	5.89	0.53	9.65	77.6	1.078	2.3	7.22	
066	12/20/17 9:16 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	3.6	0.54	11.05	83.7	1.093	1.4	6.99	
056	4/3/17 8:52 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	1.56	4.99	0.78	11.68	91.9	1.547	8.3		
056	4/4/17 9:04 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.68	0.68	0.68	5.72	0.74	11.49	92	1.481	8.9	7.5	0.8
056	4/4/17 9:04 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0.68	0.68	0.68	5.7	0.75	11.14	89.3	1.495	10.4	7.44	
056	4/5/17 9:10 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.68	0.68	5.47	0.72	11.57	92.2	1.427	7.7	7.48	1
056	4/5/17 9:10 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0	0.68	0.68	5.46	0.72	11.35	90.4	1.427	10.8	7.38	
056	4/6/17 9:01 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	1.36	1.36	2.04	5.47	0.74	11.51	91.6	1.477	7.4	7.42	
056	4/7/17 7:59 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	1.36	1.36	6	0.69	10.96	88.4	1.38	3.5	7.42	
056	4/8/17 7:55 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	1.36								

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
056	4/9/17 7:30 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0								
056	4/10/17 8:47 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	8.38	0.69	11.73	100.4	1.368	3.2	7.76	
056	4/11/17 8:50 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	8.51	0.68	11.06	95	1.352	10.2	7.66	0.8
056	4/11/17 8:50 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	0	0	0	8.5	0.69	10.35	88.9	1.364	12.5	7.46	
056	4/12/17 9:01 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.02	0.02	0.02	10.12	0.67	11.12	99.2	1.337	7.5	7.49	0.8
056	4/12/17 9:01 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.02	0.02	0.02	10.05	0.67	10.44	93	1.339	9.8	7.33	
056	5/6/17 7:06 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.1	0.74	0.74								
056	5/7/17 7:10 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.1	0.74								
056	5/8/17 9:30 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.1	13.08	0.56	9.4	89.7	1.117	6.4	7.61	1
056	5/8/17 9:30 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	0	0	0.1	13.06	0.56	8.97	85.5	1.119	8.1	7.51	
056	5/9/17 7:54 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	12.46	0.53	9.37	88.1	1.062	7.9	7.55	1
056	5/9/17 7:54 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	0	0	0	12.46	0.55	8.67	81.5	1.104	8.4	7.32	
056	5/10/17 8:16 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	12.72	0.55	10.15	96.1	1.099	7.6	7.83	
056	5/15/17 9:30 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.07	1.02	1.04	12.24	0.51	9.54	89.3	1.023	17.8	7.75	0.6
056	5/15/17 9:30 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	0.07	1.02	1.04	12.24	0.51	9.15	85.6	1.032	29.6	7.56	
056	5/16/17 9:29 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.07	1.02	13.09	0.53	9.69	92.4	1.061	6.9	7.67	0.7
056	5/16/17 9:29 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	0	0.07	1.02	12.7	0.54	9.14	86.4	1.073	9.4	7.53	
056	5/17/17 8:57 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.07	16.19	0.54	10.27	104.8	1.085	4.6	7.75	0.7
056	5/17/17 8:57 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	0	0	0.07	15.72	0.56	9.68	97.8	1.116	12.1	7.58	
056	5/18/17 8:32 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.05	0.05	0.05	18.39	0.58	9.49	101.4	1.164		8.08	
056	5/19/17 9:21 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.01	0.06	0.06	20.78	0.54	9.18	102.8	1.079	7.8	7.88	0.6
056	5/19/17 9:21 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	0.01	0.06	0.06	20.1	0.53	8.64	95.5	1.066	19	7.69	
056	6/20/17 9:21 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.13	0.16	0.16	23.25	0.48	7.44	87.4	0.978	11	7.76	0.6
056	6/20/17 9:21 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	0.13	0.16	0.16	21.58	0.5	6.99	79.6	1.006	18.6	7.58	
056	6/21/17 9:03 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.13	0.16	23.65	0.48	8.99	106.4	0.966	13.9	8.24	0.6
056	6/21/17 9:03 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	0	0.13	0.16	22.65	0.49	5.98	69.4	0.986	12.4	7.47	
056	6/22/17 9:05 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.13	23.95	0.48	9.38	111.6	0.98	13.6	8.23	0.5
056	6/22/17 9:05 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	0	0	0.13	23.03	0.49	7.6	88.9	0.986	15.9	7.82	
056	6/23/17 8:56 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	23.8	0.5	8.38	99.4	1.019	17.1	8.28	0.5
056	6/23/17 8:56 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	0	0	0	22.52	0.54	7.28	84.3	1.091	15.5	7.9	
056	6/27/17 8:38 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.08	0.08	0.08	23.26	0.49	7.44	87.4	0.985	21.1	8.3	0.5
056	6/27/17 8:38 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	0.08	0.08	0.08	23.22	0.49	7.03	82.6	0.991	32.8	8.17	
056	6/28/17 9:28 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.08	0.08	21.56	0.39	7.65	86.9	0.788	19.4	8.39	0.5
056	6/28/17 9:28 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	0	0.08	0.08	21.11	0.39	7.13	80.3	0.793	21.2	8.2	
056	6/29/17 8:39 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.08	22.52	0.45	8.26	95.6	0.92	20	8.8	0.6
056	6/29/17 8:39 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	0	0	0.08	22.42	0.46	7.46	86.2	0.933	24.6	8.67	
056	6/30/17 8:19 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.07	0.07	0.07	22.18	0.46	8.15	93.8	0.935	18.4	8.29	
056	7/1/17 8:27 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.11	0.18	0.18								
056	7/2/17 7:10 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.11	0.18								
056	7/3/17 6:56 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.11	24.63	0.48	5.59	67.4	0.98	11.8	7.32	
056	7/4/17 8:33 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0								
056	7/24/17 9:14 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	1.41	1.41	1.41	24.02	0.49	2.72	32.4	1.003	4.9	7.47	1.5
056	7/24/17 9:14 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	1.41	1.41	1.41	24.03	0.49	2.26	26.9	1.003	8	7.33	
056	7/25/17 8:59 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.01	1.42	1.42	20.95	0.4	5.01	56.3	0.817	5.5	7.29	1.1
056	7/25/17 8:59 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	0.01	1.42	1.42	20.95	0.41	4.88	54.8	0.825	9.7	7.27	
056	7/26/17 8:56 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.01	1.42	20.92	0.45	4.36	48.9	0.906	3.1	7.49	1.8
056	7/27/17 8:50 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.04	0.04	0.05	22.09	0.45	4.74	54.4	0.917	2	7.42	1.5
056	7/27/17 8:50 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	0.04	0.04	0.05	22.07	0.46	3.99	45.8	0.942	3	7.26	
056	7/28/17 9:06 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.04	0.04	22.02	0.46	6.12	70.2	0.942	2.3	8	0.5
056	7/28/17 9:06 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	0	0.04	0.04	21.5	0.52	3.64	41.3	1.04	7.6	7.71	
056	7/29/17 7:15 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.04								
056	9/7/17 9:06 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.6	0.82	0.82	19.96	0.36	5.37	59.2	0.741	4.7	8.03	1
056	9/7/17 9:06 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	0.6	0.82	0.82	19.92	0.37	4.91	54	0.764	9.8	7.85	
056	9/8/17 8:47 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.6	0.82	20.08	0.46	5.54	61.2	0.938	4.1	8.04	1.6
056	9/8/17 8:47 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC	0	0	0.6	0.82	19.94	0.46	5.14	56.6	0.939	7.6	7.88	
056	9/9/17 6:28 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.01	0.01	0.61								
056	9/10/17 7:29 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0.01	0.01								

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
056	9/11/17 9:06 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.01	19.21	0.51	7.02	76.2	1.021	1.9	8.19	0.5
056	9/11/17 9:06 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0	0	0.01	19.11	0.51	6.68	72.4	1.029	8.8	8.05	
056	9/14/17 8:58 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0.33	0.36	0.36	20.71	0.58	6.53	73.1	1.155	1.5	8.05	1.4
056	9/14/17 8:58 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0.33	0.36	0.36	20.53	1.89	4.23	47.5	3.586	5.3	7.41	
056	10/16/17 9:34 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0.1	17.03	0.55	7.75	80.5	1.103	3.6	8.31	0.7
056	10/16/17 9:34 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0	0	0.1	17.18	0.62	3.84	40	1.246	10.6	7.78	
056	10/17/17 9:32 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	15.84	0.67	6.77	68.6	1.335	5.2	8.59	0.6
056	10/17/17 9:32 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0	0	0	15.74	0.67	5	50.6	1.332	8.5	8.19	
056	10/18/17 9:19 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	14.74	0.6	6.86	67.9	1.196	4	8.2	1.4
056	10/18/17 9:19 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0	0	0	14.97	0.72	5.08	50.6	1.433	11.9	7.88	
056	10/19/17 9:13 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	14.8	1.09	6.6	65.6	2.119	7.4	8.26	1.4
056	10/19/17 9:13 AM	B	MYSTIC/ALEWIFE	UPPER MYSTIC		0	0	0	15.44	1.77	6.62	67	3.353	8.6	8.12	
056	11/27/17 9:44 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	6.9	0.52	9.04	74.5	1.043		8.04	
056	11/28/17 10:02 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	5.39	0.51	11.63	92.3	1.037	2.9	8.13	
056	11/29/17 9:20 AM	S	MYSTIC/ALEWIFE	UPPER MYSTIC	0.1	0	0	0	5.43	0.53	8.98	71.3	1.063	1.3	7.24	
177	1/3/17 8:41 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.89	0.89	0.96	2.96	0.61	11.38	84.8	1.225	3.9	7.81	
177	1/3/17 8:41 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.89	0.89	0.96	2.95	0.61	11.11	82.7	1.226	3.9	7.68	
177	1/18/17 9:10 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.36	0.66	0.66	2.78	0.57	12.09	89.6	1.162	6.8	7.45	
177	1/18/17 9:10 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.36	0.66	0.66	2.71	0.63	12.1	89.6	1.276	5.2	7.52	
177	1/30/17 8:45 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	3.12	0.63	12.67	94.8	1.273	3	7.88	
177	1/30/17 8:45 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	3.23	0.64	11.78	88.4	1.294	3.9	7.69	
177	2/28/17 8:23 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	5.93	0.74	11.67	94	1.468	3.7	7.63	
177	2/28/17 8:23 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	5.9	0.75	11.44	92.1	1.493	3.9	7.54	
177	3/13/17 7:22 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.02	0.61	0.85	14.3	100.1	1.704	2.1	7.38	
177	3/13/17 7:22 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0.02	1.49	1.77	13.45	97	3.432	68.5	7.3	
177	3/29/17 7:47 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.06	0.78	1.26	5.1	0.74	11.96	94.3	1.474	7.9	7.95	
177	3/29/17 7:47 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.06	0.78	1.26	5.16	0.81	11.62	91.8	1.603	8.5	7.7	
177	4/14/17 7:02 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.02	10.69	0.67	10.26	92.7	1.332		7.48	
177	4/14/17 7:02 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0.02	10.57	0.67	9.94	89.6	1.336		7.33	
177	4/25/17 7:34 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.89	0.89	0.89	13.52	0.64	10.14	97.7	1.275		7.57	
177	4/25/17 7:34 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.89	0.89	0.89	13.43	0.65	9.76	93.9	1.288		7.46	
177	5/11/17 7:28 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	13.45	0.58	10.22	98.4	1.154		7.77	
177	5/11/17 7:28 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	13.36	0.57	10.08	96.8	1.148		7.49	
177	5/22/17 7:29 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.12	0.12	0.12	18.73	0.56	9.83	105.7	1.115		7.47	
177	5/22/17 7:29 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.12	0.12	0.12	18.57	0.55	9.43	101.2	1.11		7.37	
177	6/5/17 7:17 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.59	0.77	0.77	17.66	0.54	7.8	82.1	1.083	9.7	7.47	
177	6/5/17 7:17 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.59	0.77	0.77	17.66	0.54	7.46	78.5	1.079	10.5	7.3	
177	6/19/17 7:30 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.03	0.03	0.05	22.97	0.47	7.42	86.7	0.958	14.5	7.5	
177	6/19/17 7:30 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.03	0.03	0.05	22.67	0.48	6.65	77.3	0.982	17	7.3	
177	7/7/17 7:03 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.3	0.3	0.3	24.96	0.52	6.12	74.3	1.057	8.5	7.53	
177	7/7/17 7:03 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.3	0.3	0.3	25.01	0.52	5.12	62.1	1.056	10.2	7.33	
177	7/21/17 7:58 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	26.2	0.43	4.05	50.2	0.876	3.1	7.71	
177	7/21/17 7:58 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	25.99	0.44	1.35	16.7	0.908	8.6	7.12	
177	8/1/17 7:24 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	23.93	0.51	7.68	91.4	1.028	4.4	8.03	
177	8/1/17 7:24 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	22.14	0.51	3.02	34.7	1.038	5.7	7.54	
177	8/14/17 7:12 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.1	24.29	0.58	5.71	68.4	1.171	4.8	7.93	
177	8/14/17 7:12 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0.1	24.21	0.58	4.94	59.1	1.177	7	7.45	
177	8/30/17 7:42 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.07	0.07	0.07	21.07	0.76	6.54	73.8	1.511		7.74	
177	8/30/17 7:42 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.07	0.07	0.07	21.76	1.24	5.56	63.8	2.407		7.41	
177	9/12/17 7:47 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	19.1	1.06	9.71	105.5	2.061	5.2	8.36	
177	9/12/17 7:47 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	19.95	3.45	3.13	35.1	6.313	13.9	7.57	
177	9/26/17 7:30 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	21.88	0.83	6.94	79.6	1.644		7.83	
177	9/26/17 7:30 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	21.26	2.39	5.95	68	4.473		7.4	
177	10/13/17 7:24 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.01	17.37	1.07	5.98	62.7	2.091	5.1	7.73	
177	10/13/17 7:24 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0.01	18	1.46	6.58	70.1	2.798		7.56	
177	10/24/17 7:59 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.07	0.07	0.07	16.8	1.64	8.74	90.9	3.118	4.7	7.48	
177	10/24/17 7:59 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.07	0.07	0.07	16.58	1.87	6.17	64	3.54	7.4	7.33	

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177	11/6/17 8:44 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.08	0.08	0.08	14.03	0.51	7.27	70.8	1.028		7.32	
177	11/6/17 8:44 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.08	0.08	0.08	13.36	0.52	5.39	51.8	1.04		7.11	
177	11/20/17 8:53 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.23	0.32	6.61	0.64	12.51	102.4	1.272	3	7.65	
177	11/20/17 8:53 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.23	0.32	6.63	0.83	9.28	76.2	1.637	8.5	7.26	
177	12/4/17 9:02 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	5.5	0.58	11.17	88.9	1.17	0.9	7.41	
177	12/4/17 9:02 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	5.87	0.82	9.59	77.2	1.624	8.4	7.18	
177	12/20/17 8:37 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	2.44	0.82	11.62	85.5	1.633	4.6	6.46	
177	12/20/17 8:37 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	5.08	5.09	8.91	72.3	9.163		6.06	
067	4/3/17 8:17 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	1.56	6.09	0.83	12.08	97.8	1.635	5.3		
067	4/3/17 8:17 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	1.56	5.92	0.94	11.85	95.6	1.85	9.4		
067	4/4/17 8:46 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.68	0.68	0.68	6.98	0.81	11.69	96.7	1.595	10.9	7.53	1
067	4/4/17 8:46 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.68	0.68	0.68	6.96	0.8	11.55	95.5	1.579	11	7.52	
067	4/5/17 8:49 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.68	0.68	5.66	0.69	11.51	92	1.381	8.5	7.47	0.9
067	4/5/17 8:49 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.68	0.68	5.95	0.75	11.25	90.7	1.498	10.6	7.41	
067	4/6/17 8:38 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	1.36	1.36	2.04	5.6	0.74	11.76	93.9	1.474	5.5	7.75	
067	4/6/17 8:38 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		1.36	1.36	2.04	5.61	0.74	11.19	89.5	1.473	16.2	7.64	
067	4/7/17 9:44 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	1.36	1.36	6.18	0.57	11.23	90.9	1.146	12	7.61	0.6
067	4/7/17 9:44 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	1.36	1.36	5.96	0.58	10.99	88.5	1.162	13	7.53	
067	4/8/17 7:36 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	1.36								
067	4/9/17 7:15 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0								
067	4/10/17 8:29 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	8.62	0.7	11.29	97.2	1.384	3.1	7.87	
067	4/10/17 8:29 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	8.57	0.7	11.31	97.2	1.384	4.7	7.67	
067	4/11/17 8:32 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	10.77	0.7	11.3	102.4	1.39	8.9	7.67	1.1
067	4/11/17 8:32 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	10.59	0.7	11.19	100.9	1.389	9.9	7.59	
067	4/12/17 8:44 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.02	0.02	0.02	12.13	0.7	11.29	105.5	1.382	6.4	7.45	1
067	4/12/17 8:44 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.02	0.02	0.02	12	0.7	11.42	106.4	1.385	8.1	7.39	
067	5/6/17 6:57 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.1	0.74	0.74								
067	5/7/17 7:00 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.1	0.74								
067	5/8/17 9:10 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.1	14.17	0.53	9.57	93.5	1.061	9.5	7.71	0.6
067	5/8/17 9:10 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0.1	14.16	0.53	9.29	90.7	1.061	10.8	7.63	
067	5/9/17 8:14 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	13.41	0.55	9.52	91.5	1.109	8.1	7.47	0.8
067	5/9/17 8:14 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	13	0.56	9.52	90.6	1.12	11.5	7.5	
067	5/10/17 7:59 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	12.76	0.57	10.95	103.7	1.144		8.06	
067	5/10/17 7:59 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	12.74	0.57	10.64	100.7	1.145		7.84	
067	5/15/17 9:10 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.07	1.02	1.04	11.93	0.52	9.84	91.4	1.044	9.4	7.86	0.6
067	5/15/17 9:10 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.07	1.02	1.04	11.92	0.52	9.68	89.9	1.052	11.5	7.75	
067	5/16/17 9:07 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.07	1.02	12.8	0.51	10.24	97.1	1.034	9.1	7.84	0.6
067	5/16/17 9:07 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.07	1.02	12.46	0.7	9.58	90.2	1.382	11.1	7.65	
067	5/17/17 8:43 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.07	16.71	0.54	11.58	119.5	1.079	5.4	8.05	0.6
067	5/17/17 8:43 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0.07	11.39	25.35	8.78	94.3	39.81	8.1	7.75	
067	5/18/17 7:40 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.05	0.05	0.05	18.83	0.68	10.92	117.7	1.353		8.15	
067	5/18/17 7:40 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.05	0.05	0.05	13.21	18.5	6.89	73.7	29.83		7.32	
067	5/19/17 9:08 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.01	0.06	0.06	20.85	0.83	10.76	121	1.639	9.2	8.07	0.6
067	5/19/17 9:08 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.01	0.06	0.06	11.66	24.54	7.14	76.7	38.65	5.8	7.48	
067	6/20/17 9:01 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.13	0.16	0.16	24.42	0.46	9	108	0.942	14.1	7.83	0.7
067	6/20/17 9:01 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.13	0.16	0.16	23.96	0.47	6.69	79.6	0.964	18.2	7.52	
067	6/21/17 10:24 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.13	0.16	24.43	0.49	10.37	124.5	0.997	19.1	8.44	0.5
067	6/21/17 10:24 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.13	0.16	24.05	1.6	6.01	72.1	3.078	18.7	7.78	
067	6/22/17 8:47 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.13	24.07	0.5	10.02	119.5	1.019	18.2	8.39	0.6
067	6/22/17 8:47 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0.13	23.52	0.63	7.93	93.6	1.267	21.9	7.92	
067	6/23/17 8:39 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	24.35	0.56	10.07	120.7	1.129	21.5	8.48	0.5
067	6/23/17 8:39 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	24.11	0.9	6.18	73.9	1.788	11.3	7.83	
067	6/27/17 8:24 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.08	0.08	0.08	24.17	0.56	11.71	139.9	1.127	25.9	8.92	0.4
067	6/27/17 8:24 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.08	0.08	0.08	23.9	0.58	9.81	116.7	1.162	28.7	8.49	
067	6/28/17 9:13 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.08	0.08	22.55	0.55	9.88	114.6	1.115	29.5	8.65	0.3
067	6/28/17 9:13 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.08	0.08	22.19	0.58	8.75	100.8	1.167	31.6	8.3	
067	6/29/17 8:23 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.08	22.44	0.51	9.59	110.9	1.027	24.5	8.45	0.4

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
067	6/29/17 8:23 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0.08	22.37	0.52	8.63	99.7	1.06	29.7	8.11	
067	6/30/17 7:57 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.07	0.07	0.07	21.88	0.47	8.14	93.1	0.948	21	8.03	
067	6/30/17 7:57 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.07	0.07	0.07	21.84	0.49	7.12	81.4	1.001	24.9	7.81	
067	7/1/17 8:15 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.11	0.18	0.18								
067	7/2/17 6:56 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.11	0.18								
067	7/3/17 7:09 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.11	25.26	0.53	4.88	59.5	1.069	11.1	7.38	
067	7/4/17 8:20 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0								
067	7/24/17 8:56 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	1.41	1.41	1.41	24.56	0.49	6.83	82.2	1.002	13.1	7.72	0.5
067	7/24/17 8:56 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		1.41	1.41	1.41	24.26	0.51	5.92	70.8	1.027	14.8	7.59	
067	7/25/17 8:41 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.01	1.42	1.42	21.51	0.47	4.93	56	0.945	9.8	7.26	0.5
067	7/25/17 8:41 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.01	1.42	1.42	21.47	0.47	5.7	64.7	0.943	27.1	7.29	
067	7/26/17 8:40 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.01	1.42	21.1	0.44	5.51	62.1	0.887	6.4	7.6	0.7
067	7/26/17 8:40 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.01	1.42	20.41	0.41	4.44	49.3	0.842	10.1	7.5	
067	7/27/17 8:34 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.04	0.04	0.05	21.53	0.42	6	68.2	0.862	6.4	7.44	0.6
067	7/27/17 8:34 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.04	0.04	0.05	21.33	0.55	5.04	57.1	1.115	11.9	7.33	
067	7/28/17 8:50 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.04	0.04	21.59	0.45	7.74	88.1	0.92	7.3	8.04	0.7
067	7/28/17 8:50 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.04	0.04	21.2	0.52	6.3	71.2	1.042	11.1	7.82	
067	7/29/17 7:00 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.04								
067	9/7/17 8:49 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.6	0.82	0.82	20.39	1.13	6.82	76.1	2.203	6.6	7.92	0.6
067	9/7/17 8:49 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.6	0.82	0.82	20.79	1.97	5.9	66.6	3.721	13.2	7.74	
067	9/8/17 8:35 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.6	0.82	20	1.19	7.65	84.7	2.313	8.5	7.95	0.6
067	9/8/17 8:35 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.6	0.82	20.8	4.82	4.96	57	8.628	13	7.49	
067	9/9/17 6:15 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.01	0.01	0.61								
067	9/10/17 7:15 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.01	0.01								
067	9/11/17 8:50 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.01	19.25	1.41	9.64	105.3	2.719	4.8	8.09	0.6
067	9/11/17 8:50 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0.01	19.06	18.56	4.43	53.4	29.89	5.3	7.35	
067	9/14/17 8:43 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.33	0.36	0.36	21.78	1.76	9.78	112.5	3.346	5.4	8.15	0.8
067	9/14/17 8:43 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.33	0.36	0.36	19.25	17.07	0.65	7.7	27.69	5.9	7.31	
067	10/16/17 9:14 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.1	18	2.01	8.6	91.9	3.792	8	8.02	0.6
067	10/16/17 9:14 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0.1	18.14	2.06	7.66	82.2	3.873	12.5	7.84	
067	10/17/17 9:12 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	15.15	2.17	9.18	92.5	4.061	7.8	8.3	0.6
067	10/17/17 9:12 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	15.21	2.32	8.05	81.3	4.338	7.8	8.1	
067	10/18/17 8:59 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	14.25	2.09	10.21	100.9	3.92	6.8	8.24	0.6
067	10/18/17 8:59 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	15.11	2.87	7.61	77	5.301	9.9	7.95	
067	10/19/17 8:59 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	14.81	1.88	12.86	128.4	3.547	7	8.74	0.7
067	10/19/17 8:59 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	15.27	2.63	10.45	106	4.876	9	8.49	
067	11/27/17 9:25 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	5.55	0.75	10.5	83.8	1.494		8.17	
067	11/27/17 9:25 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	5.45	0.84	9.84	78.4	1.66		8.04	
067	11/28/17 9:45 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	4.02	0.68	12.82	98.3	1.361	1	9.05	
067	11/28/17 9:45 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	4.5	0.92	11.35	88.3	1.818	3.3	8.41	
067	11/29/17 9:01 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	4.62	0.78	10.56	82.3	1.559	0	7.12	
067	11/29/17 9:01 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	4.53	0.82	10.43	81.2	1.621	0.5	7.11	
059	4/4/17 8:22 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.68	0.68	0.68	7.15	0.85	11.91	99	1.686	8.2	7.95	1
059	4/4/17 8:22 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.68	0.68	0.68	7.15	0.85	11.85	98.6	1.676	7.4	7.82	
059	4/5/17 8:29 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.68	0.68	5.91	0.84	12.37	99.7	1.666	8.3	8.69	1
059	4/5/17 8:29 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.68	0.68	6.13	0.84	11.86	96.1	1.653	9.6	7.97	
059	4/7/17 9:25 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	1.36	1.36	6.42	0.65	11.33	92.4	1.297	12.1	7.97	0.7
059	4/7/17 9:25 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	1.36	1.36	6.38	0.64	11.3	92.1	1.285	12.2	7.86	
059	4/11/17 8:12 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	11.07	0.72	11.27	102.8	1.425	12.3	7.87	1
059	4/11/17 8:12 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	10.99	0.73	11.27	102.7	1.444	10.5	7.8	
059	4/12/17 8:24 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.02	0.02	0.02	14	0.74	11.88	115.8	1.464	6.8	8.31	
059	5/8/17 8:46 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.1	14.59	0.59	9.56	94.3	1.177	9.3	8.03	0.7
059	5/8/17 8:46 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0.1	14.49	0.59	9.4	92.5	1.174	9.6	7.85	
059	5/9/17 8:36 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	13.29	0.59	9.51	91.2	1.176	9.6	7.48	0.8
059	5/9/17 8:36 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	13.25	0.6	9.61	92.1	1.188	14.8	7.57	
059	5/15/17 8:49 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.07	1.02	1.04	12.13	0.66	10.09	94.3	1.315	11.4	8.12	0.6
059	5/16/17 8:43 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.07	1.02	12.6	0.67	10.65	100.6	1.335	9.2	8.56	0.5

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Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
059	5/16/17 8:43 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.07	1.02	12.62	0.67	10.57	99.9	1.337	10.1	8.21	
059	5/17/17 8:20 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.07	16.48	0.69	11.5	118.2	1.375	6.2	8.17	0.6
059	5/17/17 8:20 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0.07	15.26	0.86	11.2	112.2	1.696	10.6	8.03	
059	5/19/17 8:31 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.01	0.06	0.06	20.91	0.76	11.18	125.7	1.507	8.2	8.53	0.6
059	5/19/17 8:31 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.01	0.06	0.06	20.68	0.77	11.15	124.8	1.528	8.5	8.38	
059	6/20/17 8:39 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.13	0.16	0.16	24.19	0.53	8.77	104.8	1.077	14.3	8.12	0.6
059	6/20/17 8:39 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.13	0.16	0.16	24.03	0.59	8.13	96.9	1.192	12.9	7.9	
059	6/21/17 8:28 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.13	0.16	24.58	0.56	10.87	131	1.126	17.6	8.7	0.6
059	6/21/17 8:28 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.13	0.16	24.18	0.72	8.86	106	1.436	11.7	8.21	
059	6/22/17 8:28 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.13	24.16	0.7	11.8	141.1	1.395	19.4	9.14	0.6
059	6/22/17 8:28 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0.13	23.61	0.67	10.08	119.4	1.346	21.5	8.69	
059	6/23/17 8:21 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	24.6	0.63	12.16	146.6	1.271	25.4	9.05	0.4
059	6/23/17 8:21 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	24.52	0.64	11.16	134.4	1.281	24	8.83	
059	6/27/17 8:06 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.08	0.08	0.08	24.22	0.69	11.46	137.2	1.388	30.4	9.16	0.3
059	6/27/17 8:06 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.08	0.08	0.08	23.92	0.67	10.76	128.1	1.346	31.7	9.01	
059	6/28/17 8:53 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.08	0.08	22.93	0.76	9.92	116	1.511	29.4	8.91	0.3
059	6/28/17 8:53 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.08	0.08	22.62	0.83	8.11	94.2	1.637	29.6	8.46	
059	6/29/17 8:05 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.08	22.5	0.62	9.88	114.5	1.24	27.6	8.79	0.4
059	6/29/17 8:05 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0.08	22.49	0.62	9.76	113.1	1.242	27.7	8.75	
059	7/24/17 8:35 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	1.41	1.41	1.41	24.7	0.64	7.11	85.9	1.286	10.7	8.43	0.6
059	7/24/17 8:35 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		1.41	1.41	1.41	24.79	0.66	6.51	78.7	1.322	12.3	8.06	
059	7/25/17 8:20 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.01	1.42	1.42	21.62	0.51	5.4	61.5	1.026	9.7	7.79	0.5
059	7/25/17 8:20 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.01	1.42	1.42	21.59	0.6	4.89	55.7	1.199	11.2	7.62	
059	7/26/17 8:25 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.01	1.42	21.23	0.51	7.44	84	1.031	8.7	8.38	0.7
059	7/26/17 8:25 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.01	1.42	20.97	0.69	5.84	65.7	1.367	8.2	8.03	
059	7/27/17 8:19 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.04	0.04	0.05	21.16	0.54	7.41	83.6	1.086	5.9	7.9	1.7
059	7/27/17 8:19 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.04	0.04	0.05	20.88	3.68	4.34	49.6	6.706	10.7	7.41	
059	7/28/17 8:31 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.04	0.04	21.44	0.55	8.76	99.5	1.098	6.2	8.44	0.6
059	7/28/17 8:31 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.04	0.04	21.16	0.55	8.01	90.4	1.111	7	8.25	
059	9/7/17 8:31 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.6	0.82	0.82	20.65	1.73	7.75	87.2	3.301	9.3	8.08	0.6
059	9/7/17 8:31 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.6	0.82	0.82	20.68	1.81	7.71	86.9	3.433	17.4	8.11	
059	9/8/17 8:21 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.6	0.82	20.04	1.61	8.8	97.8	3.072	8.8	8.19	0.6
059	9/8/17 8:21 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.6	0.82	20.15	1.71	8.7	96.9	3.252	8.9	8.12	
059	9/11/17 8:26 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.01	18.87	1.69	10.35	112.4	3.211	3.9	8.62	0.7
059	9/11/17 8:26 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0.01	18.98	2.06	10.21	111.4	3.882	6.6	8.46	
059	9/14/17 8:18 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.33	0.36	0.36	21.77	1.8	10.34	119	3.42	3.6	8.55	1.1
059	9/14/17 8:18 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.33	0.36	0.36	21.45	2.37	10	114.8	4.445	4.6	8.35	
059	10/16/17 8:52 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.1	18.03	2.29	9	96.5	4.287	6.6	8.45	0.6
059	10/16/17 8:52 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0.1	18.16	3.4	7.58	82	6.209	6.4	8.11	
059	10/17/17 8:51 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	14.99	2.34	9.09	91.4	4.368	6.9	8.55	0.7
059	10/17/17 8:51 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	15.17	2.39	8.75	88.4	4.463	9	8.45	
059	10/18/17 8:38 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	14.48	2.46	10.37	103.2	4.579	6.1	8.49	0.7
059	10/18/17 8:38 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	16.46	6.2	4.64	49.3	10.87	5.9	7.89	
059	10/19/17 8:39 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	14.88	2.27	12.63	126.7	4.25	6.8	8.78	0.6
059	10/19/17 8:39 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	15.6	4.79	8.1	83.8	8.546	7.3	8.2	
176	4/3/17 8:35 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	1.56	5.39	0.92	12.98	103.3	1.82			
176	4/4/17 8:33 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.68	0.68	0.68	7.77	0.96	13.3	112.4	1.886	9.1	7.56	1
176	4/4/17 8:33 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0.68	0.68	0.68	7.67	1	13.34	112.5	1.961	12.7	7.58	
176	4/5/17 8:37 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0.68	0.68	6.48	0.58	12.53	102.2	1.171	17	7.61	0.7
176	4/5/17 8:37 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0	0.68	0.68	6.7	1.12	12.08	99.5	2.181	23	7.41	
176	4/6/17 7:53 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	1.36	1.36	2.04	6.63	0.71	13.28	108.9	1.409	7.1	7.72	
176	4/7/17 9:32 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	1.36	1.36	6.85	0.52	11.74	96.7	1.049	16.9	7.84	0.6
176	4/7/17 9:32 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0	1.36	1.36	6.66	0.55	11.9	97.5	1.108	21	7.71	
176	4/8/17 7:15 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	1.36								
176	4/9/17 6:55 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0								
176	4/10/17 7:58 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0	10.04	0.71	11.42	101.7	1.414	3.9	7.98	
176	4/11/17 8:20 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0	11.81	0.66	11.41	105.9	1.314	10.6	7.61	0.6



2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
176	4/11/17 8:20 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0	0	0	11.52	0.67	11.41	105.2	1.326	25.3	7.61	
176	4/12/17 8:32 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.02	0.02	0.02	14.7	0.71	11.62	115	1.405	5.6	8.22	0.9
176	4/12/17 8:32 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0.02	0.02	0.02	14.19	0.69	11.39	111.4	1.375	9.7	7.62	
176	5/6/17 6:38 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.1	0.74	0.74								
176	5/7/17 6:40 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0.1	0.74								
176	5/8/17 8:56 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0.1	13.92	0.45	9.09	88.3	0.912	9.6	7.89	0.5
176	5/8/17 8:56 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0	0	0.1	13.86	0.47	8.27	80.2	0.94	10.9	7.58	
176	5/9/17 8:27 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0	13.89	0.47	8.55	83	0.954	8.8	7.36	0.6
176	5/10/17 7:22 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0	12.54	0.54	9.38	88.4	1.072		8.38	
176	5/15/17 8:56 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.07	1.02	1.04	11.33	0.5	10.27	94.1	1.01	8.5	8	0.5
176	5/15/17 8:56 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0.07	1.02	1.04	12.26	3.63	6.22	59.4	6.597	12.1	7.5	
176	5/16/17 8:53 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0.07	1.02	12.76	0.61	10.04	95.1	1.213	8	7.84	0.5
176	5/16/17 8:53 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0	0.07	1.02	12.17	0.62	9.39	87.8	1.243	9.8	7.65	
176	5/17/17 8:29 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0.07	16.63	0.68	10.36	106.7	1.352	6.6	7.74	0.6
176	5/17/17 8:29 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0	0	0.07	13.02	1.11	7.92	75.7	2.148	11.8	7.4	
176	5/18/17 6:50 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.05	0.05	0.05	19.45	0.68	9.07	99.1	1.349		7.35	
176	5/19/17 8:38 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.01	0.06	0.06	21.54	0.67	10.66	121.3	1.343	9	7.94	0.5
176	5/19/17 8:38 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0.01	0.06	0.06	20.24	0.69	9	99.8	1.384	9.6	7.7	
176	6/20/17 8:48 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.13	0.16	0.16	23.65	0.49	7.35	87	0.995	8.6	7.71	0.7
176	6/20/17 8:48 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0.13	0.16	0.16	23.59	0.49	6.95	82.1	1.001	9.8	7.56	
176	6/21/17 8:37 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0.13	0.16	24.44	0.5	9.76	117.2	1.017	12	8.3	0.6
176	6/21/17 8:37 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0	0.13	0.16	23.62	0.51	7.06	83.5	1.036	9.8	7.84	
176	6/22/17 8:34 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0.13	24.68	0.52	10.57	127.5	1.045	9.2	8.52	0.6
176	6/22/17 8:34 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0	0	0.13	23.96	0.54	9.34	111.2	1.084	10.9	8.17	
176	6/23/17 8:28 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0	24.84	0.57	10.71	129.6	1.149	19.8	8.72	0.5
176	6/27/17 8:11 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.08	0.08	0.08	24.52	0.57	11.21	134.9	1.142	20.9	9.07	0.5
176	6/27/17 8:11 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0.08	0.08	0.08	23.65	0.56	7.26	85.9	1.131	16.4	7.86	
176	6/28/17 9:00 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0.08	0.08	22.77	0.55	9.38	109.2	1.104	21.7	8.26	0.5
176	6/28/17 9:00 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0	0.08	0.08	20.35	10.08	0.55	6.5	17.08	43.3	7.32	
176	6/29/17 8:09 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0.08	22.6	0.54	8.62	100	1.087	16.5	8.21	0.6
176	6/29/17 8:09 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0	0	0.08	22.2	0.55	5.79	66.7	1.107	13.6	7.83	
176	6/30/17 7:23 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.07	0.07	0.07	21.72	0.52	5.59	63.8	1.04	12	6.96	
176	7/1/17 7:48 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.11	0.18	0.18								
176	7/2/17 6:31 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0.11	0.18								
176	7/3/17 6:39 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0.11	25.75	0.57	4.27	52.5	1.148	5.1	6.93	
176	7/4/17 7:53 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0								
176	7/24/17 8:43 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	1.41	1.41	1.41	24.76	0.62	6.09	73.6	1.246	7	7.8	0.9
176	7/24/17 8:43 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		1.41	1.41	1.41	24.82	1.39	4.14	50.3	2.684	6.4	7.48	
176	7/25/17 8:28 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.01	1.42	1.42	20.34	0.48	4.84	53.8	0.964	9	7.34	0.4
176	7/25/17 8:28 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0.01	1.42	1.42	20.41	0.57	4.41	49.1	1.148	9.9	7.22	
176	7/26/17 8:30 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0.01	1.42	19.93	0.46	4.71	51.9	0.926	5.8	7.82	0.9
176	7/26/17 8:30 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0	0.01	1.42	19.5	0.45	4.15	45.3	0.92	6.6	7.71	
176	7/27/17 8:24 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.04	0.04	0.05	21.36	0.54	6.91	78.3	1.081	5.6	7.61	0.9
176	7/27/17 8:24 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0.04	0.04	0.05	21.08	0.51	6.29	70.9	1.037	12.1	7.49	
176	7/28/17 8:37 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0.04	0.04	21.84	0.52	7.75	88.6	1.053	4.3	8.07	0.6
176	7/28/17 8:37 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0	0.04	0.04	21.1	0.54	6.36	71.7	1.085	7.8	7.93	
176	7/29/17 6:37 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0.04								
176	9/7/17 8:38 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.6	0.82	0.82	19.84	1.11	6.53	72	2.16	8.5	8.03	0.5
176	9/7/17 8:38 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0.6	0.82	0.82	21.03	2.17	5.23	59.4	4.076	12.1	7.74	
176	9/8/17 8:26 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0.6	0.82	19.47	0.89	8.32	91	1.744	7.2	8.24	0.5
176	9/8/17 8:26 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0	0.6	0.82	20.33	1.66	7.1	79.3	3.162	11.8	7.89	
176	9/9/17 5:58 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.01	0.01	0.61								
176	9/10/17 7:00 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0.01	0.01								
176	9/11/17 8:31 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0.01	19.1	1.46	10.32	112.5	2.807	3.3	8.38	0.6
176	9/11/17 8:31 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0	0	0.01	19.24	1.86	7.5	82.1	3.519	6.9	8.05	
176	9/14/17 8:26 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0.33	0.36	0.36	21.88	1.78	9.62	110.9	3.392	4.7	8.25	1
176	9/14/17 8:26 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0.33	0.36	0.36	21.62	1.97	9.77	112.2	3.725	7.9	8.24	

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Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
176	10/16/17 9:00 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0.1	18.13	2.28	8.55	91.8	4.265	7.1	8.12	0.6
176	10/16/17 9:00 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0	0	0.1	18.22	2.49	7.01	75.5	4.639	11.1	7.86	
176	10/17/17 9:00 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0	15.41	2.41	8.57	87	4.494	7	8.28	0.6
176	10/17/17 9:00 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0	0	0	15.71	2.43	7.14	72.9	4.527	9.5	8.14	
176	10/18/17 8:46 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0	14.87	2.46	9.44	94.7	4.583	6.1	8.17	0.8
176	10/18/17 8:46 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0	0	0	14.76	2.51	8.41	84.2	4.665	18.8	8.06	
176	10/19/17 8:47 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0	15.24	2.5	10.71	108.4	4.648	8.2	8.49	0.6
176	10/19/17 8:47 AM	B	MYSTIC/ALEWIFE	MALDEN RIVER		0	0	0	15.24	2.57	9.38	95	4.775	14.5	8.37	
176	11/27/17 8:46 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0	5.56	0.82	11.32	90.4	1.631		8.3	
176	11/28/17 8:29 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0	3.74	0.73	11.38	86.6	1.465	1.1	7	
176	11/29/17 8:25 AM	S	MYSTIC/ALEWIFE	MALDEN RIVER	0.1	0	0	0	5.06	0.88	10.57	83.4	1.735	2	6.84	
167	1/3/17 8:17 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.89	0.89	0.96	2.61	0.86	12.39	91.6	1.711	6	7.23	
167	1/3/17 8:17 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.89	0.89	0.96	4.13	27.4	8.54	78.6	43.53	3.2	7.29	
167	1/18/17 8:44 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.36	0.66	0.66	2.59	1.01	13.75	101.7	1.992	4.5	6.83	
167	1/18/17 8:44 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.36	0.66	0.66	3.54	30.14	10.29	95.1	47.59	4.1	6.98	
167	1/30/17 8:20 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	2.35	0.84	14.2	104.3	1.672	4.6	7.08	
167	1/30/17 8:20 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	4.26	28	9.63	89.3	44.37	5	6.9	
167	2/28/17 7:57 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	6.55	0.87	11.56	94.6	1.717	6.6	7.33	
167	2/28/17 7:57 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	6.16	13.34	10.4	91.7	22.35	4.2	6.9	
167	3/29/17 7:26 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.06	0.78	1.26	5.06	1.08	11.71	92.5	2.124	6.9	7.37	
167	3/29/17 7:26 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.06	0.78	1.26	3.65	27.72	9.54	87	44.08	18.4	7.61	
167	4/3/17 8:01 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	1.56	5.65	1.01	12.17	97.5	1.975	9.9		
167	4/3/17 8:01 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	1.56	4.16	25.31	10.32	93.7	40.49	12.4		
167	4/4/17 8:12 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.68	0.68	0.68								1.2
167	4/5/17 8:25 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.68	0.68								1
167	4/6/17 8:24 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	1.36	1.36	2.04	6.08	0.76	11.97	96.9	1.513	12.6	7.56	
167	4/6/17 8:24 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		1.36	1.36	2.04	4.65	23.18	10.03	90.9	37.29	8.9	7.68	
167	4/7/17 9:20 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	1.36	1.36								0.7
167	4/8/17 7:29 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	1.36								
167	4/9/17 7:05 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0								
167	4/10/17 8:13 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	9.34	0.69	11.24	98.5	1.377	5.7	7.83	
167	4/10/17 8:13 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	6.42	20.14	10.34	95.8	32.61	4.6	7.83	
167	4/11/17 8:05 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0								1
167	4/12/17 8:20 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.02	0.02	0.02								1.1
167	4/14/17 6:34 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.02	12.43	0.76	11.33	106.6	1.502		7.51	
167	4/14/17 6:34 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0.02	5.5	29.4	9.44	91	46.16		7.8	
167	4/25/17 7:08 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.89	0.89	0.89	13.51	0.7	10.8	104.1	1.38		7.53	
167	4/25/17 7:08 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.89	0.89	0.89	10.02	18.46	8.83	88	29.88		7.37	
167	5/6/17 6:47 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.1	0.74	0.74								
167	5/7/17 6:50 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.1	0.74								
167	5/8/17 8:40 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0.1								0.6
167	5/9/17 8:37 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0								0.8
167	5/10/17 7:45 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	13.08	0.61	11.02	105.2	1.216		8.42	
167	5/10/17 7:45 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	12.42	8.38	8.74	86.2	14.4		7.7	
167	5/11/17 7:00 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	13.79	0.62	11.39	110.4	1.243		7.67	
167	5/11/17 7:00 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	11.81	15.23	8.93	90.8	25		7.32	
167	5/15/17 8:45 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.07	1.02	1.04								0.7
167	5/16/17 8:37 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.07	1.02								0.6
167	5/17/17 8:14 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0.07								0.6
167	5/18/17 7:15 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.05	0.05	0.05	19.54	0.68	11.12	121.7	1.351		8.04	
167	5/18/17 7:15 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.05	0.05	0.05	11.89	21.81	5.55	59	34.71		7.34	
167	5/19/17 8:25 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.01	0.06	0.06								0.5
167	5/22/17 7:12 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.12	0.12	0.12	19.62	1.02	9.51	104.4	1.998		7.04	
167	6/5/17 6:50 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.59	0.77	0.77	18.46	0.74	8.91	95.4	1.461	11.1	6.97	
167	6/5/17 6:50 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.59	0.77	0.77	16.35	13.07	7.6	84	21.68	9.7	7.23	
167	6/19/17 7:03 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.03	0.03	0.05	22.94	0.65	6.95	81.3	1.306		7.21	
167	6/19/17 7:03 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.03	0.03	0.05	19.95	9.55	5.62	65.4	16.26	11.9	7.16	

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
167	6/20/17 8:35 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.13	0.16	0.16								0.6
167	6/21/17 8:32 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.13	0.16								0.6
167	6/22/17 8:26 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0.13								0.5
167	6/23/17 8:26 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0								0.5
167	6/27/17 8:09 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.08	0.08	0.08								0.5
167	6/28/17 8:51 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.08	0.08								0.5
167	6/29/17 8:01 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0.08								0.4
167	6/30/17 7:43 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.07	0.07	0.07	22.02	0.7	9.03	103.7	1.403	23.8	7.99	
167	6/30/17 7:43 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.07	0.07	0.07	15.39	23.28	4.94	57	36.73	7.6	7.34	
167	7/1/17 8:05 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.11	0.18	0.18								
167	7/2/17 6:45 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.11	0.18								
167	7/3/17 7:28 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.11	25.49	0.62	5.82	71.3	1.249	7.8	7.47	
167	7/4/17 8:10 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0								
167	7/7/17 6:36 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.3	0.3	0.3	24.99	0.69	6.85	83.2	1.375	6.1	7.14	
167	7/7/17 6:36 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.3	0.3	0.3	20.05	15.15	5.18	62.4	24.84	4.7	7	
167	7/21/17 7:32 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	27.09	0.53	8.77	110.6	1.074	3.1	8.06	
167	7/21/17 7:32 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	17.85	25.29	3.83	46.9	39.58	8.7	7.35	
167	7/24/17 8:28 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		1.41	1.41	1.41								0.7
167	7/25/17 8:26 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.01	1.42	1.42								0.6
167	7/26/17 8:20 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.01	1.42								0.8
167	7/27/17 8:11 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.04	0.04	0.05								0.6
167	7/28/17 8:23 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.04	0.04								0.6
167	7/29/17 6:48 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.04								
167	8/1/17 7:00 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	22.46	0.58	10.13	117.3	1.158	5	7.3	
167	8/1/17 7:00 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	18.64	27.14	3.77	47.4	42.17	4.1	7.36	
167	8/14/17 6:41 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.1	24.63	1.33	8.65	104.7	2.576	3.9	7.3	
167	8/14/17 6:41 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0.1	17.6	29.86	3.19	40	45.96	9	7.43	
167	8/30/17 7:17 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.07	0.07	0.07	21.13	2.04	7.83	89.1	3.844		7.17	
167	8/30/17 7:17 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.07	0.07	0.07	17.42	29.93	3.36	42	46.05		7.42	
167	9/7/17 8:21 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.6	0.82	0.82								0.6
167	9/8/17 8:22 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.6	0.82								0.6
167	9/9/17 6:09 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.01	0.01	0.61								
167	9/10/17 7:10 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.01	0.01								
167	9/11/17 8:17 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0.01								0.6
167	9/12/17 7:22 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	19.74	1.65	10.37	114.5	3.143	18.1	6.87	
167	9/12/17 7:22 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	16.6	30.99	4.92	60.9	47.53	6.6	7.44	
167	9/14/17 8:20 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.33	0.36	0.36								1.1
167	9/26/17 7:05 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	22.08	2.03	11.55	133.8	3.838		7.99	
167	9/26/17 7:05 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	17.4	30.16	3.78	47.3	46.37		7.45	
167	10/13/17 7:02 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0.01	17.19	2.35	9.35	98.5	4.387	11.2	6.67	
167	10/13/17 7:02 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0.01	17.32	29.35	3.8	47.3	45.26	6.3	7.01	
167	10/16/17 8:40 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0.1								0.6
167	10/17/17 8:40 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0								0.6
167	10/18/17 8:28 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0								0.7
167	10/19/17 8:28 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0								0.6
167	10/24/17 7:35 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.07	0.07	0.07	16.74	2.93	9.07	95	5.397	3.9	6.45	
167	10/24/17 7:35 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.07	0.07	0.07	15.78	25.84	4.81	56.7	40.36	19.7	6.59	
167	11/6/17 8:20 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0.08	0.08	0.08	13.67	0.58	8	77.3	1.155		6.74	
167	11/6/17 8:20 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0.08	0.08	0.08	14.01	26.46	4.95	56.6	41.28		6.23	
167	11/20/17 8:32 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0.23	0.32	5.47	1.36	12.2	97.6	2.636	3	6.7	
167	11/20/17 8:32 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0.23	0.32	8.59	29.2	7.65	79.2	45.47		6.46	
167	11/27/17 9:10 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	5.54	0.99	11.8	94.3	1.942		8.18	
167	11/27/17 9:10 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	7.69	27.65	7.57	76	43.38		7.31	
167	11/28/17 9:24 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	3.86	0.9	12.85	98.2	1.785	1.1	8.31	
167	11/28/17 9:24 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	7.65	28.53	7.94	80.1	44.63	11.6	7.56	
167	11/29/17 8:47 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	4.68	0.95	11.36	88.7	1.878	0	6.93	
167	11/29/17 8:47 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	7.72	28.29	6.7	67.6	44.28	10.1	6.88	

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Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
167	12/4/17 8:40 AM	S	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	0.1	0	0	0	4.29	0.76	11.34	87.6	1.516	0.6	6.58	
167	12/4/17 8:40 AM	B	MYSTIC/ALEWIFE	LOWER MYSTIC BASIN		0	0	0	7.36	27.76	7.99	79.6	43.58	3.5	6.49	
052	4/3/17 8:08 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	1.56	4.59	20.9	10.94	97.5	33.93	3.4		
052	4/4/17 8:13 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.68	0.68	0.68	6.26	6.52	11.83	99.8	11.5	8.3	7.8	1.2
052	4/4/17 8:13 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	3	0.68	0.68	0.68	4.06	30.07	10.29	96.3	47.37	6.6	7.94	
052	4/5/17 8:19 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.68	0.68	4.61	25.64	10.63	97.8	40.88	6	7.95	2
052	4/5/17 8:19 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0	0.68	0.68	4.24	28.91	10.33	96.3	45.67	6.6	7.93	
052	4/6/17 8:17 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	1.36	1.36	2.04	5.02	3.7	11.93	95.8	6.783	10.1	7.29	
052	4/7/17 9:14 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	1.36	1.36	6.63	3.18	11.54	96.2	5.872	8.7	7.98	1.1
052	4/7/17 9:14 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	4.4	0	1.36	1.36	4.21	29.41	9.61	89.9	46.4	6.2	7.92	
052	4/10/17 8:20 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	8.31	14.23	10.53	98.2	23.6	2.8	7.67	
052	4/11/17 8:02 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	8.76	13.69	11.23	105.5	22.75	10.3	7.88	1.1
052	4/11/17 8:02 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0	0	0	7.28	20.39	10.48	99.4	32.9	10.6	7.83	
052	4/12/17 8:16 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.02	0.02	0.02	10.34	10.28	10.99	104.8	17.42	6.4	7.75	1.3
052	4/12/17 8:16 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0.02	0.02	0.02	7.58	23.12	10.24	99.5	36.87	8	7.85	
052	5/8/17 8:34 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0.1	12.59	18.6	9.28	98	30	6.3	7.96	1
052	5/8/17 8:34 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	3.6	0	0	0.1	10.35	27.99	7.17	76.5	43.62	6.1	7.76	
052	5/9/17 8:48 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	10.97	22.93	8.04	84.2	36.36	5.2	7.64	
052	5/9/17 8:48 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0	0	0	10.29	28.24	7.38	78.8	43.98	7.3	7.76	
052	5/10/17 7:40 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	12.3	14.94	9.66	99.1	24.55		7.61	
052	5/15/17 8:38 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.07	1.02	1.04	11.96	3.34	10.65	100.8	6.098	10.2	8.31	0.7
052	5/15/17 8:38 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0.07	1.02	1.04	11.97	3.28	9.88	93.5	6.008	10.9	7.85	
052	5/16/17 8:30 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.07	1.02	10.93	18.21	9.38	95.3	29.47	6.5	7.9	1.3
052	5/16/17 8:30 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0	0.07	1.02	10.01	28.62	8.33	88.6	44.52	5.7	7.87	
052	5/17/17 8:08 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0.07	11.62	22.26	9.42	99.7	35.36	4.4	7.88	
052	5/17/17 8:08 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0	0	0.07	10.64	27.3	8.89	95.1	42.62	6.9	7.85	
052	5/18/17 7:28 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.05	0.05	0.05	13.36	25.78	9.29	104.4	40.34		7.85	
052	5/19/17 8:16 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.01	0.06	0.06	14.87	24.39	9.66	111	38.32	5.5	8.02	1.7
052	5/19/17 8:16 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0.01	0.06	0.06	12.9	28.25	9.79	110.6	43.84	6.5	8	
052	6/20/17 8:27 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.13	0.16	0.16	19.97	16.88	7.79	94.5	27.41	4.3	7.83	1.8
052	6/20/17 8:27 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	3.3	0.13	0.16	0.16	14.71	28.48	6.21	72.9	44.09	4.1	7.68	
052	6/21/17 8:12 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.13	0.16	17.51	23.36	7.22	86.9	36.82	5.4	7.76	1.5
052	6/21/17 8:12 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	3.1	0	0.13	0.16	14.23	29.2	6.26	73.1	45.11	6.1	7.69	
052	6/22/17 8:12 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0.13	15.64	26.5	7.39	87.3	41.3	2.9	7.85	2.3
052	6/22/17 8:12 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	4	0	0	0.13	13.7	29.73	5.97	69.2	45.88	8.9	7.77	
052	6/23/17 8:11 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	15.41	26.51	7.45	87.7	41.31	5.1	7.77	1.8
052	6/23/17 8:11 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0	0	0	13.71	29.71	6.9	79.9	45.84	6.1	7.77	
052	6/27/17 7:55 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.08	0.08	0.08	20.59	10.66	8.91	105.6	17.99	21.7	8.18	0.5
052	6/27/17 7:55 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0.08	0.08	0.08	20.36	11.13	8.69	102.8	18.72	24.9	8.15	
052	6/28/17 8:26 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.08	0.08	17.4	17.63	7.72	89.5	28.51	14.3	7.75	0.6
052	6/28/17 8:26 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0	0.08	0.08	16.75	18.86	7.38	85.1	30.31	13.3	7.75	
052	6/29/17 7:54 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0.08	17.39	17.07	7.86	90.8	27.68	11.9	7.88	0.9
052	6/29/17 7:54 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0	0	0.08	17.35	17.06	7.57	87.5	27.67	14.3	7.87	
052	7/24/17 8:25 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	1.41	1.41	1.41	20.55	17.94	6.69	82.6	28.99	10.8	7.75	0.9
052	7/24/17 8:25 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		1.41	1.41	1.41	18.57	27.82	6.83	86.1	43.12	9.9	7.73	
052	7/25/17 8:11 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.01	1.42	1.42	20.16	11.97	5.77	68.3	20.02	7	7.57	0.8
052	7/25/17 8:11 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0.01	1.42	1.42	18.34	24.87	5.36	66.1	38.97	6.2	7.53	
052	7/26/17 8:12 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.01	1.42	19.83	12.93	7.9	93.4	21.48	11.2	7.73	0.8
052	7/26/17 8:12 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0	0.01	1.42	19.65	13.75	7.39	87.5	22.72	10.8	7.6	
052	7/27/17 8:07 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.04	0.04	0.05	18.38	23.65	6	73.6	37.24	3.3	7.6	
052	7/27/17 8:07 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0.04	0.04	0.05	17.85	27.52	5.4	67	42.7	10.1	7.64	
052	7/28/17 8:19 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.04	0.04	18.3	27	6.52	81.5	41.98	3	7.71	
052	7/28/17 8:19 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0	0.04	0.04	17.96	29.36	5.56	70	45.26	5.8	7.66	
052	9/7/17 8:24 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.6	0.82	0.82	18.82	24.65	6.61	82.2	38.65	5.3	7.92	1
052	9/7/17 8:24 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0.6	0.82	0.82	18.14	30.15	5.98	75.9	46.36	8	7.86	
052	9/8/17 8:13 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.6	0.82	18.83	19.39	7.01	84.6	31.1	5.8	7.76	
052	9/8/17 8:13 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		0	0.6	0.82	18.05	28.11	6	75.1	43.52	5	7.63	

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
052	9/11/17 8:17 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0.01	17.36	26.64	6.07	74.2	41.47	1.8	7.7	
052	9/14/17 8:05 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.33	0.36	0.36	17.4	30.41	7.05	88.3	46.72	1.5	7.79	
052	9/14/17 8:05 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.33	0.36	0.36	16.9	30.89	6.37	79.3	47.38	3.4	7.76	
052	10/16/17 8:42 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0.1	16.49	30.99	6.87	84.9	47.53	3.5	7.78	2.7
052	10/16/17 8:42 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	2.9	0	0	0.1	16.51	31.01	5.68	70.2	47.55	4.3	7.73	
052	10/17/17 10:01 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0	0	0	0	15.81	31.04	6.48	79.1	47.62	4.7	7.33	1.5
052	10/17/17 10:01 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	3.6	0	0	0	15.86	31.12	5.57	68	47.73	9.6	7.48	
052	10/18/17 8:29 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	15.31	30.33	6.15	73.9	46.64	6.5	7.74	0.7
052	10/18/17 8:29 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	3.2	0	0	0	15.35	30.77	5.37	64.7	47.26	9.7	7.69	
052	10/19/17 8:31 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	15.61	30.81	5.66	68.7	47.31	7	7.66	1.5
052	10/19/17 8:31 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	3	0	0	0	15.64	31.03	5.22	63.5	47.61	7.8	7.66	
052	11/27/17 9:03 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	6.64	26.23	9.89	96	41.47		6.94	
069	4/3/17 7:44 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	1.56	4.67	21.49	10.49	94.1	34.8	3.3		
069	4/3/17 7:44 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	0	0	0	1.56	4.1	29.68	10.25	95.8	46.81	10.1		
069	4/4/17 8:04 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.68	0.68	0.68	6.19	11.58	11.55	100.6	19.61	8	7.8	1.3
069	4/4/17 8:04 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	2	0.68	0.68	0.68	4.51	28.44	10.58	99	44.95	7	7.92	
069	4/5/17 8:10 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.68	0.68	5.36	9.86	11.73	99	16.93	6.7	7.91	1.5
069	4/5/17 8:10 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	0	0	0.68	0.68	4.3	29.03	10.25	95.8	45.84	6.8	7.95	
069	4/6/17 7:31 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	1.36	1.36	2.04	5.36	6.55	11.19	92.3	11.58	4.4	7.38	
069	4/6/17 7:31 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH		1.36	1.36	2.04	4.14	30.57	9.81	92.3	48.07	9.5	7.84	
069	4/7/17 8:22 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	1.36	1.36	5.73	9.89	11.1	94.5	16.95	8.2	7.8	1.5
069	4/7/17 8:22 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	2.9	0	1.36	1.36	4.3	28.67	9.79	91.3	45.32	8	7.87	
069	4/10/17 7:30 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	6.88	17.5	10.59	97.6	28.63	2	7.61	
069	4/10/17 7:30 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	0	0	0	0	5.72	28.12	9.93	95.4	44.3	8.9	7.91	
069	4/11/17 7:52 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	7.97	22.4	10.59	103.3	35.8	9.3	7.94	
069	4/11/17 7:52 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	0	0	0	0	8.1	22.3	10.38	101.6	35.63	10.6	7.92	
069	4/12/17 8:08 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.02	0.02	0.02	10.28	13.18	11.16	108.2	21.92	6.1	7.89	
069	5/8/17 8:25 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0.1	12.57	19	9.58	101.4	30.58	5.7	8.04	1.3
069	5/8/17 8:25 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	4.9	0	0	0.1	9.78	29.11	8.16	86.7	45.24	5.7	7.87	
069	5/9/17 8:57 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	10.72	26.53	8.06	85.9	41.53	7.7	7.86	1.7
069	5/9/17 8:57 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	0	0	0	0	10.21	28.69	7.87	84.1	44.61	9.7	7.86	
069	5/10/17 7:06 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	10.97	20.3	8.97	92.5	32.55		7.59	
069	5/10/17 7:06 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	0	0	0	0	10.54	27.67	8.44	90.3	43.16		7.73	
069	5/15/17 8:28 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.07	1.02	1.04	10.09	22.99	9.6	98.7	36.5	7.6	7.93	
069	5/16/17 8:20 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.07	1.02	10.67	27.91	9.35	100.5	43.48	5	7.94	
069	5/17/17 8:01 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0.07	11.88	24.47	9.96	107.5	38.53	3.5	8.02	
069	5/17/17 8:01 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	0	0	0	0.07	11.39	27.01	9.95	108	42.17	24.8	8.02	
069	5/18/17 8:01 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.05	0.05	0.05	14.03	27.26	9.27	106.5	42.4		7.92	
069	5/18/17 8:01 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	0	0.05	0.05	0.05	12.87	28.41	9.8	110.7	44.06		7.93	
069	5/19/17 8:08 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.01	0.06	0.06	14.88	26.71	9.66	112.5	41.6	5.2	8.01	
069	5/19/17 8:08 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	0	0.01	0.06	0.06	13.77	27.94	9.74	111.7	43.37	4.7	8.01	
069	6/20/17 8:16 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.13	0.16	0.16	19.64	22.83	8.74	109.2	36.07	3	7.97	2
069	6/20/17 8:16 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	0	0.13	0.16	0.16	16.17	26.85	7.27	87	41.77	4.5	7.81	
069	6/21/17 8:04 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.13	0.16	17.65	25.82	8.12	99.4	40.31	3.6	7.86	2.3
069	6/21/17 8:04 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	0	0	0.13	0.16	14.51	28.95	7.21	84.6	44.75	4.6	7.74	
069	6/22/17 8:02 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0.13	15.69	26.52	7.52	88.9	41.32	2.3	7.83	2.2
069	6/22/17 8:02 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	0	0	0	0.13	13.71	29.9	7.07	82	46.11	2.2	7.86	
069	6/23/17 8:02 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	14.99	27.79	7.77	91.3	43.12	4.6	7.8	1.8
069	6/23/17 8:02 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	0	0	0	0	13.64	29.68	7.5	86.8	45.8	4.9	7.8	
069	6/27/17 7:44 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.08	0.08	0.08	16.84	22.08	8.21	96.7	34.99	9.4	7.91	0.6
069	6/27/17 7:44 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	0	0.08	0.08	0.08	14.05	29.74	8.19	95.6	45.87	7	7.91	
069	6/28/17 8:14 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.08	0.08	16.5	24.49	9	106.8	38.44	8.9	7.91	0.8
069	6/28/17 8:14 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	3.7	0	0.08	0.08	12.47	30.7	7.83	89	47.28	5.1	7.79	
069	6/29/17 7:44 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0.08	14.93	28.91	9.38	110.9	44.68	6.3	7.98	
069	7/24/17 8:18 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	1.41	1.41	1.41	18.7	23.57	8.11	100	37.13	7.4	7.9	1.1
069	7/24/17 8:18 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	0	1.41	1.41	1.41	19.33	27.38	8.14	103.9	42.51	8.8	7.88	
069	7/25/17 8:02 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.01	1.42	1.42	19.24	13.79	6.71	78.8	22.77	6.6	7.7	

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
069	7/26/17 8:03 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.01	1.42	18.5	24.1	6.91	85.1	37.88	7.9	7.68	0.2
069	7/27/17 7:59 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.04	0.04	0.05	18.55	28.08	7.14	90.1	43.48	2	7.81	1.4
069	7/27/17 7:59 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.04	0.04	0.05	17.75	29.18	6.47	81	45.02	5.5	7.77	
069	7/28/17 8:11 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.04	0.04	18.64	28.54	7.42	94.1	44.12	2.6	7.81	1.6
069	7/28/17 8:11 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	3.3	0	0.04	0.04	17.81	29.49	6.59	82.7	45.44	4.4	7.73	
069	9/7/17 8:14 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.6	0.82	0.82	18.85	23.08	6.83	84.2	36.43	4.4	7.9	1.1
069	9/7/17 8:14 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	4.9	0.6	0.82	0.82	17.85	30.63	6.27	79.3	47.02	10.6	7.9	
069	9/8/17 8:04 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.6	0.82	17.74	29.38	6.63	83.1	45.29	7.5	7.67	
069	9/11/17 8:06 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0.01	17.07	30.75	6.47	80.7	47.19	1.3	7.71	2
069	9/11/17 8:06 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	3.6	0	0	0.01	16.59	31.22	6.15	76.3	47.84	3.4	7.7	
069	9/14/17 7:56 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.33	0.36	0.36	17.96	30.77	7.6	96.5	47.21	1.3	7.81	
069	9/14/17 7:56 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.33	0.36	0.36	16.95	30.91	7.5	93.4	47.42	1.6	7.83	
069	10/16/17 8:33 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0.1	16.44	30.28	7.4	90.9	46.56	3.1	7.74	2.2
069	10/16/17 8:33 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0.1	16.52	30.96	6.39	78.9	47.49	4.5	7.74	
069	10/17/17 10:10 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	15.81	31.11	5.78	70.5	47.71	5	7.56	2
069	10/17/17 10:10 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	15.69	31.11	5.86	71.3	47.71	4.7	7.56	
069	10/18/17 8:21 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	15.57	30.8	6.44	78.1	47.29	4.6	7.75	1.3
069	10/18/17 8:21 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	15.56	30.99	6.02	73	47.55	6.1	7.74	
069	10/19/17 8:21 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	15.67	31.05	6.09	74	47.63	6.4	7.69	1.5
069	10/19/17 8:21 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	15.65	31.13	5.71	69.4	47.74	9.4	7.69	
069	11/27/17 8:30 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	7.24	30.17	9.11	92	46.99		6.32	
069	11/27/17 8:30 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	7.58	30.43	8.64	88	47.32		6.95	
137	1/5/17 8:24 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.06	0.95	3.7	30.01	10.44	96.8	47.36	7.1	7.96	2.2
137	1/5/17 8:24 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	13.2	0	0.06	0.95	4.23	31.43	10.24	97	49.27	14.8	7.94	
137	1/26/17 10:47 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.05	0.07	1.16	4.05	21.51	10.71	94.5	34.91	11.5	8.08	2
137	1/26/17 10:47 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	14.1	0.05	0.07	1.16	4.08	31.41	9.85	93.1	49.29	9.2	7.9	
137	2/2/17 10:30 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.05	0.11	4.95	28.21	10.94	103.3	44.54	13.8	7.99	4
137	2/2/17 10:30 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	10.9	0	0.05	0.11	4.54	31.4	9.95	95.1	49.17	3.7	7.92	
137	2/15/17 10:52 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.22	0.22	0.31	2.72	22.32	10.81	92.8	36.31	5.7	7.99	2.3
137	2/15/17 10:52 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	11.2	0.22	0.22	0.31	2.45	32.28	9.57	87.3	50.9	6.6	7.83	
137	3/3/17 10:35 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0.02	4.86	28.82	10.95	103.6	45.43	11.1	8.15	2.6
137	3/3/17 10:35 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	10.6	0	0	0.02	5.12	31.19	10.63	102.8	48.77	10.2	8.14	
137	3/21/17 9:32 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0.01	3.59	28.23	10.78	98.4	44.82	9.2	8.04	2.3
137	3/21/17 9:32 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	11.2	0	0	0.01	2.34	31.68	10.32	93.5	50.07	7.4	8.03	
137	4/13/17 9:30 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.02	0.02	8.02	21.12	10.74	104	33.92	5.3	7.94	2
137	4/13/17 9:32 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	11.9	0	0.02	0.02	5.14	30.87	10.01	96.7	48.31	6.6	7.99	
137	4/20/17 9:06 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.01	0.08	0.08	10.57	21.92	11.41	117.7	34.93	5	8.31	1.4
137	4/20/17 9:06 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	11.9	0.01	0.08	0.08	6.26	31.09	10.34	102.7	48.44	6	8.05	
137	5/2/17 9:14 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.19	0.19	0.2	10.91	22.81	9.22	96.5	36.2	7	7.95	1.7
137	5/2/17 9:14 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	10	0.19	0.19	0.2	9.04	29.79	8.51	89.3	46.26	7.3	7.99	
137	5/23/17 9:36 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.12	0.12	14.51	22.82	9.19	103.8	36.08	4.7	7.93	1.7
137	5/23/17 9:36 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	13.3	0	0.12	0.12	11.12	29.18	8.23	90.1	45.25	7.1	7.92	
137	6/12/17 10:18 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	19.52	23.38	10.28	128.6	36.85	5.6	8.15	1.3
137	6/12/17 10:18 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	12	0	0	0	12.68	29.22	7.33	82.9	45.21	6.4	7.78	
137	6/26/17 9:32 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0.08	14.83	28.89	8.16	96.3	44.65	4.8	7.85	2
137	6/26/17 9:32 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	11.4	0	0	0.08	11.91	30.93	7.8	87.7	47.63	5.9	7.83	
137	7/6/17 9:54 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	15.95	29.76	9.93	120.5	45.85	3.5	8	2.4
137	7/6/17 9:54 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	13.1	0	0	0	12.58	30.99	8.04	91.8	47.67	11.4	7.78	
137	7/31/17 9:39 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	20.52	28.35	11.87	155.8	43.86	3.3	8.2	1.2
137	7/31/17 9:39 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	12.1	0	0	0	17.39	29.95	5.88	73.5	46.09	8.7	7.76	
137	8/7/17 9:18 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0.16	19.42	29.49	6.78	87.7	45.45	3.9	7.8	1.9
137	8/7/17 9:18 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	12.3	0	0	0.16	17.93	30.71	6.4	81.1	47.14	7.9	7.81	
137	8/29/17 9:47 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	18.83	30.24	9.15	117.7	46.48	2.1	7.99	2
137	8/29/17 9:47 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	10.2	0	0	0	16.24	31.2	7.03	86.5	47.83	4.6	7.8	
137	9/15/17 9:35 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.21	0.54	0.57	18.07	30.23	8.05	102.1	46.46	6	7.85	1.7
137	9/15/17 9:35 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	11.8	0.21	0.54	0.57	15.54	31.37	7.18	87.2	48.08	6.1	7.77	
137	9/25/17 7:27 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0.03	17.67	30.49	6.85	86.3	46.82	5.5	7.83	1.5

2017 MWRA Central Lab Field Results

Station	Day/Time (EST)	Surface / Bottom	Region	Subregion	Sample depth (m)	Logan Rainfall 1- Day	Logan Rainfall 2- Day	Logan Rainfall 3- Day	Temperature (C)	Salinity (PSU)	Dissolved Oxygen (mg/L)	DO Pct Saturation (pct)	Specific Conductivity (mS/cm)	Turbidity (NTU)	pH	Secchi depth (m)
137	9/25/17 7:27 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	10.6	0	0	0.03	17.09	30.67	6.42	80.1	47.09	10.5	7.81	
137	10/3/17 7:19 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	18.1	29.85	7.42	93.8	45.94	5.8	7.73	1.7
137	10/3/17 7:19 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	12.8	0	0	0	17.83	30.68	4.81	60.8	47.1	10.9	7.59	
137	10/23/17 9:16 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0	0	15.64	30.7	7.22	87.5	47.15	2.9	7.74	2.1
137	10/23/17 9:16 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	11.5	0	0	0	14.76	31.3	6.32	75.5	48.01	7.7	7.73	
137	11/7/17 8:28 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.13	0.21	0.21	12.02	29.24	6.77	75.5	45.27	5.3	7.51	2.8
137	11/7/17 8:28 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	10.6	0.13	0.21	0.21	11.84	30.91	6.45	72.4	47.6	8.9	7.58	
137	11/16/17 10:30 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0.19	0.19	0.19	9.01	29.9	9.12	95.7	46.42	3.8	7.76	1.6
137	11/16/17 10:30 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	12.9	0.19	0.19	0.19	9.01	31.16	8.37	88.5	48.19	7.3	7.77	
137	12/7/17 11:20 AM	S	MYSTIC/ALEWIFE	MYSTIC MOUTH	0.1	0	0.46	0.54	6.46	28.38	9.67	94.8	44.56	2.6	7.83	3
137	12/7/17 11:20 AM	B	MYSTIC/ALEWIFE	MYSTIC MOUTH	13.5	0	0.46	0.54	6.91	30.78	9.01	90.7	47.91	3.6	7.87	



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