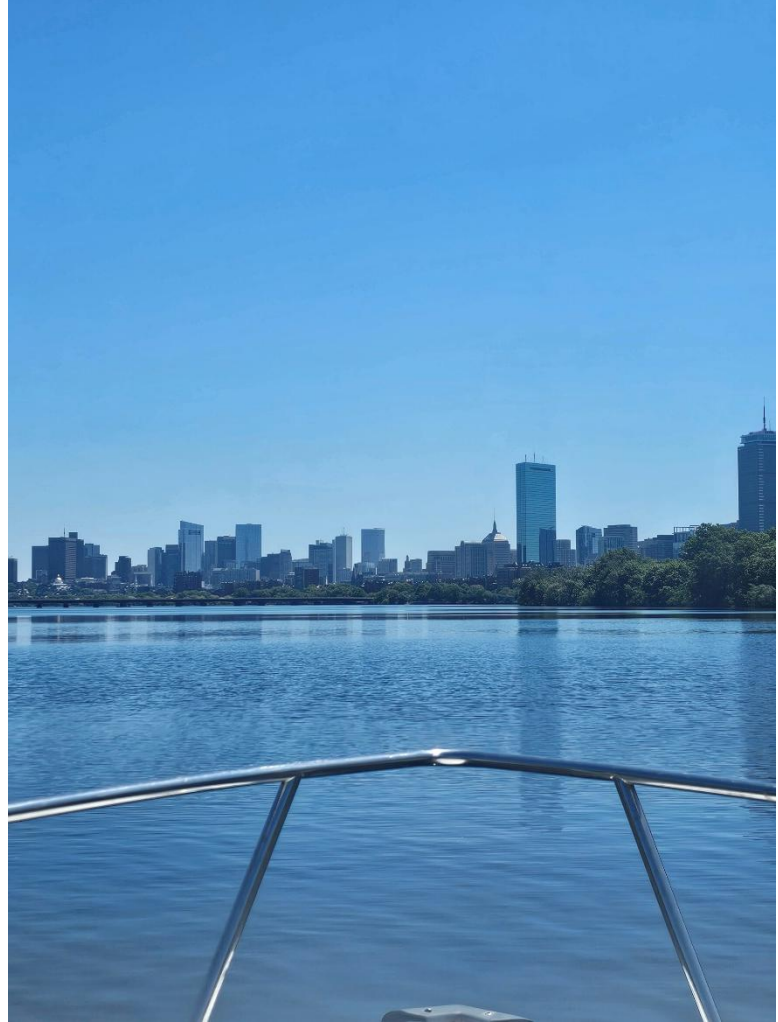


Summary of CSO Receiving Water Quality Monitoring in Upper Mystic River/Alewife Brook and Charles River, 2025



Massachusetts Water Resources Authority
Environmental Quality Department
Report 2026-03



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Cover Photos

Left Cover Photo: Mystic River by Fang Yu, MWRA.

Right Cover Photo: Charles River by Daniel Burdeno, MWRA.

**Summary of CSO Receiving Water Quality Monitoring
in Upper Mystic River/Alewife Brook
and Charles River, 2025**

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The DLS Red Team supervised by Kevin Constantino conducted the nutrient analyses.

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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 variances from water quality standards for CSO discharges to the Lower Charles River/Charles Basin and the Alewife Brook/Upper Mystic River Basin.

The Massachusetts Department of Environmental Protection (MassDEP) issued initial variances for the Lower Charles River/Charles Basin and the Alewife Brook/Upper Mystic Basin in October 1998 and March 1999, respectively, and extended both variances several times through August 2024. On September 1, 2024, MassDEP issued new variances for both regions with a five-year term, through August 31, 2029. The United States Environmental Protection Agency (EPA) Region 1 approved these variances on February 3, 2026. The current variances are similar to the previous variances regarding water quality monitoring and reporting conditions. This monitoring summary is submitted pursuant to current variance conditions and provides an assessment of water quality in 2025 in the Charles River, Upper Mystic River, and Alewife Brook, which has benefited from many of the 35 CSO projects in MWRA's Long-Term CSO Control Plan (LTCP). Specifically, this report is submitted pursuant to the following excerpted condition from the current variances (note, the following condition is from the variance for the Lower Charles River/Charles Basin, but that same condition is mirrored in the variance for the Alewife Brook/Upper Mystic River Basin)¹:

MWRA shall continue the water quality monitoring program in the Lower Charles River and Charles River Basin to demonstrate the effectiveness of CSO controls implemented in the watershed. The work shall be adequate to assess the water quality impacts of remaining CSO pollutant sources and loads over a range of storms events, and the associated level of attainment of water quality standards in the Lower Charles River and Charles River Basin.

On or before July 15 each year, for the duration of this Variance, MWRA shall submit to MassDEP and EPA a report on the previous year's sampling program. The report shall include a summary of the receiving water sampling data collected over the past calendar year, including sampling locations and parameters, and comparisons between results during wet and dry weather, a characterization of rainfall events for which wet weather sampling was done, and a correlation of the sampling data with CSO activations and volumes.

The LTCP also required a four-year performance assessment, which included the development of receiving water quality models for bacterial indicators in the regions covered in this report. The models were used to

¹ Final Determination to Adopt a Water Quality Standards Variance for CSO Overflow Discharges - Lower Charles River/Charles Basin: <https://www.mass.gov/doc/final-determination-to-adopt-a-water-quality-standards-variance-for-cso-overflow-discharges-lower-charles-rivercharles-basin/download>; Final Determination to Adopt a Water Quality Standards Variance for CSO Overflow Discharges to Alewife Brook/Upper Mystic River Basin: <https://www.mass.gov/doc/final-determination-to-adopt-a-water-quality-standards-variance-for-cso-overflow-discharges-alewife-brookupper-mystic/download>

evaluate bacterial water quality impacts due to remaining CSOs in a 1992 Typical Year² and under alternative CSO control scenarios, as well as the water quality impacts of upstream/baseline conditions and stormwater flows. The receiving water quality models demonstrated that the current level of CSO control does not preclude the Alewife Brook/Upper Mystic or Lower Charles River from the attainment of water quality standards. Under a model scenario where CSOs are the only source of bacteria to these regions, the Alewife Brook met standards 99.6% of the time, the Upper Mystic River 97.9% of the time, and the Charles River 99.9% of the time in a 1992 Typical Year (AECOM 2021a, 2021b)³. Details on the development of these models and the results of their simulations are available at MWRA's Technical Reports page⁴.

In accordance with the current variances, on April 30, 2026, MWRA, along with the Cities of Cambridge and Somerville submitted a Draft Updated CSO Control Plan to MassDEP and EPA. The Draft Plan builds upon more than four years of robust technical analysis, collaboration, and a meaningful public engagement process. The Draft Plan will dramatically reduce CSO discharges across the variance waterbodies and, even in the face of increased precipitation driven by climate change, is projected to eliminate CSO discharges in a 2050 Typical Year⁵. As the first CSO plan in the nation to explicitly incorporate climate change, it sets a new standard for integrated, resilient water management. Written, public comments on the Draft Plan can be submitted to the project team through an online comment portal, by email, or by mail until September 30, 2026⁶.

Additionally, MWRA and the municipalities provide rapid public notification of CSO discharges through subscriber-based email and text alerts, as well as postings on their websites⁷. Notifications are also sent to local boards of health and media outlets, including those serving environmental justice communities.

Since the early 1990s, major MWRA system improvements, such as the upgrade of the Deer Island Treatment Plant and related transport systems and the completed CSO control projects, have reduced the frequency and volume of CSO discharges and have increased the percentage of discharges receiving treatment. Treatment at these facilities focuses primarily on the disinfection of pathogens found in wastewater. The LTCP reduced region-wide CSO discharge volume in a 1992 Typical Year from 3.3 billion gallons in 1988 to 0.4 billion gallons, an 88% reduction, with 95% of the remaining discharge volume receiving treatment at MWRA's four CSO treatment facilities. Several new projects are underway or under

² 1992 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.

³ The water quality modeling has not been updated to reflect further system and/or model changes were made that resulted in additional CSO to the Alewife (CAM401A recalibration) and some minor reductions in the Charles. See: <https://www.mwra.com/media/file/supplementaltofinal122724>

⁴ MWRA Technical Reports. <https://www.mwra.com/harbor/enquad/trlist.html>

⁵ The 2050 Typical Year was developed by MWRA, along with the Cities of Cambridge and Somerville, in 2025, for the Updated CSO Control Plan. It is unique in that it is forward-looking, and is designed to reflect projected increases in storm intensity and volume due to climate change.

<https://voice.somervillema.gov/19901/widgets/115506/documents/80799>

⁶ Visit the following link to access the draft plan, to find further information, and to submit comments:

<https://voice.somervillema.gov/joint-cso-planning>

⁷ For more information and to sign up for MWRA alerts: https://www.mwra.com/harbor/html/cso_reporting.htm

consideration and will further reduce CSO discharge volume. For purposes of this report, receiving water quality data for the past 5 years (2021-2025) is considered representative of current conditions.

Rainfall volumes for calendar year 2025 at various gauge locations in MWRA's service area and comparison to MWRA's approved 1992 Typical Year appear in Table 1-1. The table summarizes the frequency of rain events in 2025 within selected ranges of rainfall volume. In 2025, the metropolitan Boston area experienced a mainly dry year, with less rainfall total volume than the 1992 Typical Year. The official average annual rainfall for Boston in 2025 was 41.88 inches⁸. At Boston's Logan Airport gauge, just 5.16 inches of rain were recorded during the peak summer months (June–August) in 2025, a total that was well below previous years and reflects a relatively dry summer compared to historical norms. May was an unusually wet month, driving up the total annual rainfall for 2025.

In 2025, most gauges recorded a similar amount of small, moderate and large storms compared to the 1992 Typical Year, while the frequency of larger storms (>2.0 inches) was much lower.

Table 1-2 lists the number of storms in 2025 that had high peak rainfall intensities, which can drive CSO activations. Table 1-2 compares rainfall event relative intensities to the 1992 Typical Year using 0.4 inches/hour as a reference. At all gauges, there were mainly a similar number of storms with high peak intensities in 2025 compared to the 1992 Typical Year. The average total rainfall and the average peak intensity in these storms varied across gauges. 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, 2025 rainfall vs. 1992 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
1992 Typical Year	46.80	93	49	14	16	8	6
2025 Chelsea Creek Headworks (MWRA)	38.18	91	52	13	15	9	2
2025 Ward St. Headworks (MWRA)	42.39	92	50	13	17	10	2
2025 BWSC* Charlestown	38.00	83	41	15	16	9	2
2025 BWSC* Allston	39.64	85	43	10	21	9	2
2025 USGS† Fresh Pond	35.91	90	49	12	20	8	1

*Boston Water and Sewer Commission

†U.S. Geological Survey

Source: AECOM (2026)

⁸ NOAA National Centers for Environmental information, Climate at a Glance: City Time Series, published June 2022, retrieved on June 15, 2026 from <https://www.ncdc.noaa.gov/cag/>

Table 1-2. Number of rain events with peak intensity >0.4 inches/hour, 2025 vs. 1992 Typical Year.

	Number of storms (peak hourly intensity > 0.4 in/hr)	Average total rainfall in these storms (inches)	Average peak hourly intensity in these storms (inches/hour)
1992 Typical Year	9	1.56	0.63
2025 Chelsea Creek Headworks (MWRA)	6	1.11	0.53
2025 Ward St. Headworks (MWRA)	8	1.53	0.59
2025 Columbus Park Headworks (MWRA)	10	1.46	0.53
2025 Fresh Pond (USGS)	9	1.18	0.56

1.1 Overview of the monitoring program

MWRA's CSO receiving water quality monitoring program was established in 1989, with most sampling locations monitored since 1991. All harbor and tributary areas affected by CSO discharges in Boston, Chelsea, Cambridge, and Somerville are included in the monitoring program. For most sampling locations included in this report, which presents sampling results for the Lower Charles River/Charles Basin and the Alewife Brook/Upper Mystic River only, at least 20 samples have been collected each year. Due to the global COVID-19 pandemic right before the beginning of the 2020 field sampling season, MWRA made a number of temporary changes to the program to align with employee safety protocols recommended by the Centers for Disease Control (CDC) and the Commonwealth of Massachusetts. Some of these temporary changes impacted sampling intermittently between 2020 and 2022.⁹

1.2 Organization and purpose of the report

The purpose of this report is to summarize 2025 water quality in the Charles River and Alewife Brook/Upper Mystic River. The report compares sampling results to water quality standards, 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 2024 data.

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 Alewife Brook/Upper Mystic River, respectively. Water quality parameters measured for each region include bacterial indicators (*E. coli*, *Enterococcus*, and fecal coliform), water clarity (Secchi depth, total suspended solids), nutrients (phosphate, ammonium, nitrate/nitrite), and chlorophyll. Note, where the data are aggregated by rainfall conditions, most rain data come from rain gauges local to the sampling locations rather than the Logan Airport gauge. This provides more spatially relevant rainfall data, rather than using a single rain gauge that can be several miles distant from some of the sampling locations.

⁹ For previous reports, see: <https://www.mwra.com/harbor/enquad/trlist.html>

2 Materials and Methods

2.1 Field and laboratory methods

2.1.1 Selection of sampling locations

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

2.1.2 Sampling schedules

At least 20 visits were made to each station last year under two separate monitoring projects. In 2025, eutrophication monitoring was conducted biweekly year-round at a subset of river locations. Nutrients, chlorophyll, total suspended solids (TSS), bacteria, and physical parameters were collected as part of this program. CSO receiving water monitoring included bacteria sampling and physical parameter measurements collected roughly between March and October.

2.1.3 Sample collection

At all locations, water samples were collected near the surface (approximately 0.1 meters [4 inches] below surface). These surface samples were collected by grab into rinsed sample containers. Bottom samples were collected at locations with a water depth greater than 3 meters (~10 feet), using a Kemmerer sampler or alpha bottle at 0.5 meter (1.5 feet) above the sediment surface. Separate sampling containers were used for bacteria and nutrient/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 – March 2019) YSI EXO2, EXO3 (April 2019 – present)
Secchi Depth	Wildco 8-inch limnological Secchi disk (upstream of dams) Wildco 8-inch oceanographic Secchi disk (marine waters) ¹⁰

¹⁰ As of May 1, 2025, limnological Secchi disks were used for both fresh and marine waters, since oceanographic Secchi disks are no longer available.

2.1.5 Rainfall measurements and conditions

Most analyses use 15-minute rainfall data from the following rain gauges throughout the region, which may be closer in proximity to CSO outfalls and/or monitoring locations: Ward Street and Somerville Marginal (MWRA); Allston and East Boston (BWSC); and Fresh Pond (US Geological Survey). These data are also stored in MWRA’s Environmental Monitoring and Mapping System (EMMS) database. Daily rainfall measurements were also 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, and data is available for the entire monitoring period. Results from this gauge are reported in one-day intervals. Data are downloaded from the NWS website and stored in the EMMS database.

For a number of figures in Chapters 3 and 4, rainfall conditions are used to separate bacteria results into different “bins” based on antecedent rainfall. Two different sets of conditions are used – one with three categories (dry, damp, and wet) and one with four categories (dry, damp, light rain, and heavy rain). Dry and damp conditions are identical between the two sets, and taken together, the “light rain” and “heavy rain” conditions in the four-category system are combined in the “wet” condition in the three-category system. Data from both the local gauges and the Logan gauge can be categorized in either system. A description of how local gauges have been assigned to each sampling station can be found in Appendix I.

Figure 2-1 shows the two rainfall classification systems and the different conditions graphically.

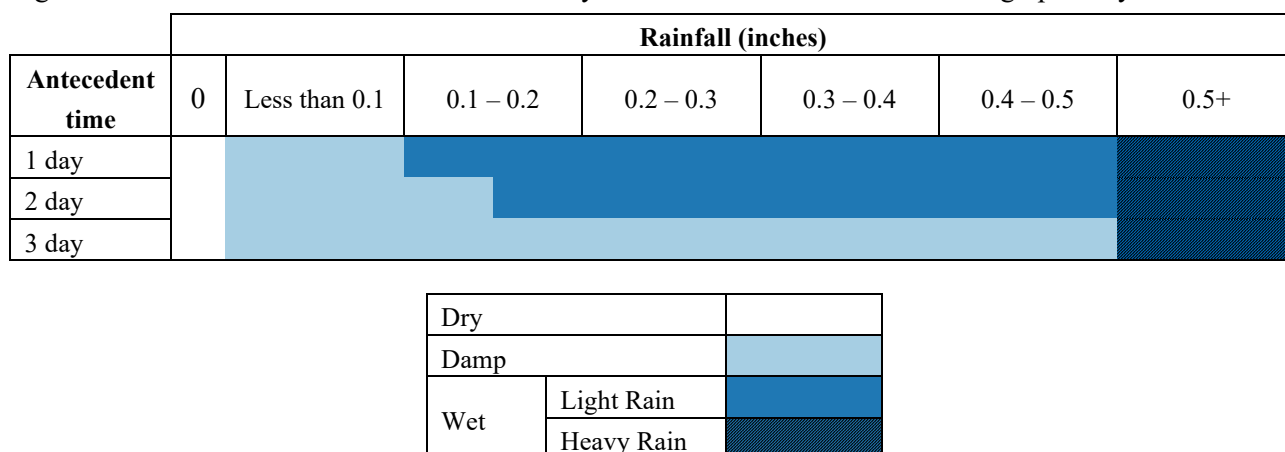


Figure 2-1. Summary and comparison of the two rainfall classification systems

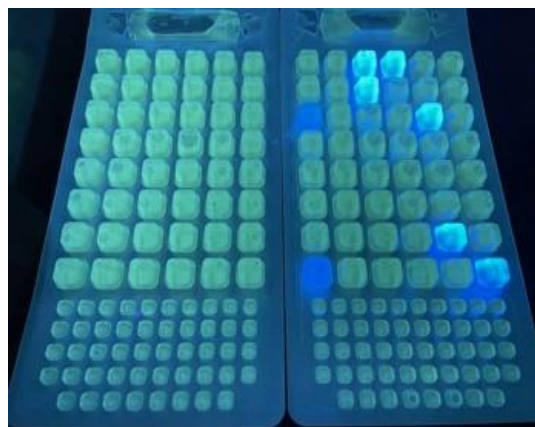
2.1.6 Laboratory analyses

Samples were analyzed at MWRA’s 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 2020) 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. All 2025 results are included in Appendix IV (bacteria) and Appendix V (nutrients).

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 ^{plus} 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-NH ₃ H), Skalar SAN ^{plus} autoanalyzer, Whatman GF/F filters
Nitrate+nitrite	Bendschneider and Robinson (1952), modified as in Clesceri et al, (1998, Method 4500- NO ₃ F), Skalar SAN ^{plus} 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



A sample for *Enterococcus* is collected by boat, processed at the lab bench, and then analyzed by counting fluorescing wells after incubation. The left sample has a result of <10 and the right has a result of 86 MPN/100ml.

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 2-2. 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 2-2 for the 10th, 25th, 50th, 75th, and 90th percentiles. Open circles at the top and bottom represent maximum and minimum measurements.

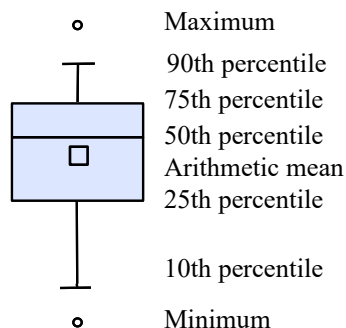


Figure 2-2. Percentile distributions indicated on percentile box plots

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

This report also presents nutrient, chlorophyll-a, and total suspended solids (TSS) results against historical results for the previous ten years. The historical results are grouped by month and presented as shaded areas with a similar structure to the box plots. This provides a useful visualization of the typical seasonality and central tendency for these parameters, to which the recent data can be compared (Figure 2-3).

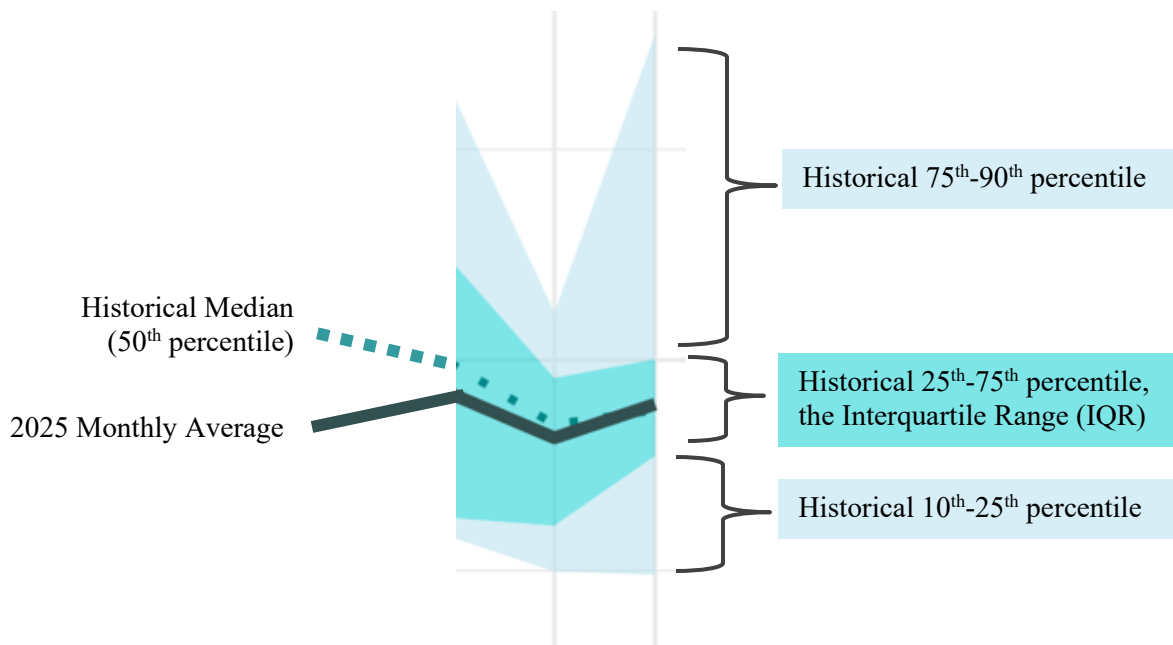


Figure 2-3. Shaded percentile distributions for plots comparing nutrient, chlorophyll-a and total suspended solids (TSS) data to historical ranges.

2.3 *Water Quality Standards used in this report*

Standards are shown in Table 2-3 and include standards and guidelines from MassDEP and Environmental Protection Agency (EPA). The MassDEP standard for Class B/SB waters (fishable and swimmable) are based on *E. coli* and/or *Enterococcus* counts for freshwater, and *Enterococcus* counts for marine waters, following an EPA recommendation for *Enterococcus* in marine waters (USEPA 2012). These standards, specified in 314 CMR 4.00¹¹, were updated and approved by EPA in January 2022. There are no public bathing beaches in the Charles or Upper Mystic/Alewife Brook, but the primary contact recreation (i.e., swimming) standards can still serve as a useful benchmark. MassDEP uses a Secchi depth guideline to assess water clarity as an approximation for signs of eutrophication.

2.4 *Map resources used in this report*

Monitoring station and CSO outfall datalayers are produced from MWRA geographic data. The map baselayer is a combination of the following MassGIS datalayers: Dams, Hydrography, Municipalities, MassDEP Wetlands, MassDOT Roads, Ocean Mask, and Protected and Recreational Open Space.

¹¹ Massachusetts Surface Water Quality Standards. 314 CMR 4.00. <https://www.mass.gov/regulations/314-CMR-4-the-massachusetts-surface-water-quality-standards>

Table 2-3. Massachusetts water quality standards for Class B and Class SB waters.¹

Designated Use	Parameter	Standard
Inland waters (Class B) warm water fishery Massachusetts waters, MassDEP	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, MassDEP	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), MassDEP	<i>Enterococcus</i>	Statistical Threshold Value (STV): 130 counts/100 mL; Geometric mean: 35 counts/100 mL
Freshwater primary contact recreation (designated swimming area), MassDEP	<i>E. coli</i>	Statistical Threshold Value (STV): 410 counts/100 mL; Geometric mean: 126 counts/100 mL
Former standard, primary contact recreation, MassDEP (pre-2007)	Fecal coliform	Geometric mean: ≤ 200 counts/100 mL, no more than 10% of samples above 400 counts/100 mL
Primary contact recreation, aesthetics/transparency	Secchi disk depth	≥ 1.2 meters (4 feet)

¹ All receiving water areas discussed in this report are Class B according to MassDEP standards, current as of January 2022 (except for Mystic River mouth downstream of the Amelia Earhart Dam, which is SB_{CSO}. The SB_{CSO} class has the same water quality standards as SB class except for an allowance for CSO discharges).

From MassDEP 2022:

Inland Water Class B: Those Inland Waters so designated pursuant to 314 CMR 4.06; including, without limitation, certain wetlands designated in 314 CMR 4.06(2), certain other waters designated in 314 CMR 4.06(5), and certain qualified waters designated in 314 CMR 4.06(6)(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(1)(d)6. and (6)(b) as a "Treated Water Supply" these waters shall be suitable as a source of public water supply with appropriate treatment. Class B waters 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: Those Coastal and Marine Waters so designated pursuant to 314 CMR 4.06; including, without limitation, 314 CMR 4.06(2) and certain surface waters designated in 314 CMR 4.06(6)(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. In certain waters, habitat for fish, other aquatic life and wildlife may include, but is not limited to, seagrass. Where designated for shellfishing in 314 CMR 4.06(6)(b), 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 (Figure 3-1) is the river segment from the Watertown Dam in Watertown downstream to the Charles River Dam in Boston, near the river mouth. This area, the “Charles River Basin” for the purposes of this report, is freshwater and designated Class B with a variance for Combined Sewer Overflows by MassDEP. The river segment is approximately 8.6 miles long. The 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). Results for stations 006 and 206 are combined in Table 3-6.

For purposes of this report, MWRA’s monitoring area in the Charles River Basin is divided into three smaller reaches: Upper Basin, Mid-Basin, and Lower Basin. Sampling locations and CSOs appear in Figure 3-1 with labeled landmarks that delineate the reach boundaries. Table 3-1 describes the reaches, and the sampling locations and CSOs within each reach.

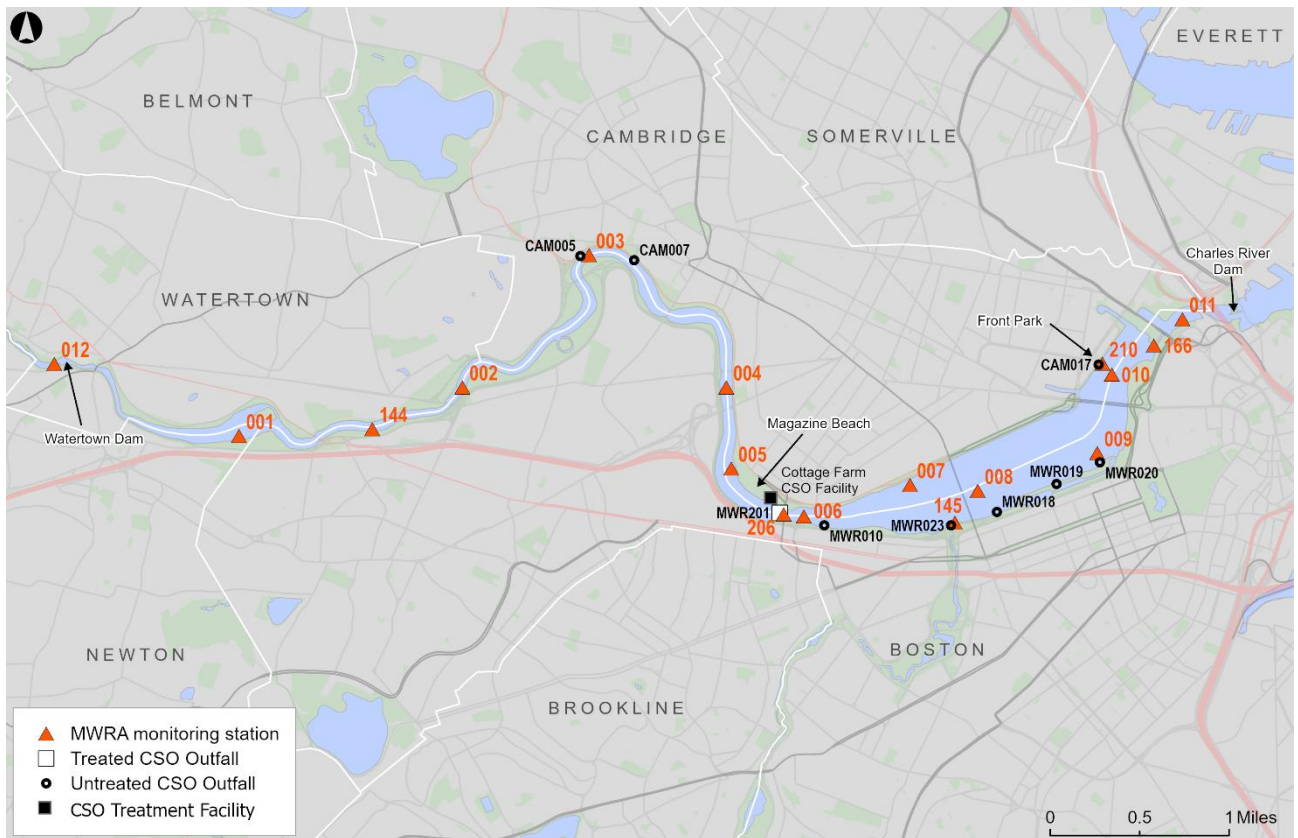


Figure 3-1. Map of MWRA Charles River monitoring stations.

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

Reach (MassDEP Classification)	Description of Reach	Sampling station	Location Description	Average depth (meters (feet))
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)	0.6 (2)
		*001, Newton	Downstream of Newton Yacht Club (upstream of all CSOs)	0.6 (2)
		144, Allston	Faneuil Brook outlet (upstream of active CSOs)	2.0 (6.5)
		*002, Allston	Downstream of Beacon St. Bridge (upstream of active CSOs)	2.1 (7)
		*003, Cambridge	Downstream of Eliot Bridge, Cambridge side (at CAM005)	1.9 (6)
		004, Cambridge/Allston	Between River St. and Western Ave. bridges	3.2 (10.5)
		†*005, Cambridge	Off Magazine Beach	0.7 (2)
Mid-Basin (Class B/Variance, warm water fishery)	Magazine Beach (near BU Bridge) in Cambridge to Front Park (at CAM017) in Cambridge	006, Cambridge/Boston	BU Bridge, downstream side (downstream of MWR201)	3.2 (10.5)
		‡206, Cambridge/Boston	Mid-channel, sampled on the upstream side of the BU Bridge	0.3 (1)
		*007, Cambridge	MIT Boathouse, Cambridge side	3.4 (11)
		*145, Boston	Stony Brook outlet, Boston side (at MWR023)	1.8 (6)
		008, Cambridge/Boston	Mass. Ave Bridge, downstream side (downstream of MWR023, MWR018)	4.2 (13)
		*009, Cambridge/Boston	Longfellow Bridge, upstream side (downstream of MWR021, closed 3/00)	6.5 (21)
		010, Boston	Longfellow Bridge, downstream side (downstream of MWR022, closed 3/00)	8.8 (29)
		*210, Cambridge	Dock SE off Cambridge Pkwy/Bike Path, across from Front Park (at CAM017)	2.7 (9)
Lower Basin (Class B/Variance, warm water fishery)	Front Park (at CAM017) in Cambridge to Charles River Dam in Boston	†166, Boston	Science Museum, upstream of old dam (downstream of all lower basin CSOs)	3.1 (10)
		*011, Boston	Between Science Museum and Charles River Dam (downstream of all Charles CSOs)	4.5 (15)

Sampling locations are midstream unless otherwise noted.

* indicates sampling location is also a shoreline sampling location.

† indicates a sampling location sampled for nutrients, TSS, chlorophyll in eutrophication monitoring project.

‡ Station 206 sampled as a substitute for 006 during unsafe boating conditions; not sampled in 2025.

3.2 Pollution sources

Known pollution sources to the Charles River Basin are shown in Table 3-2 and consist primarily of stormwater, dry weather inputs, upstream inputs, and CSOs. The CSO sources include nine outfalls, eight untreated and one treated. The treated outfall (MWR201) is the discharge point for MWRA's Cottage Farm CSO treatment facility. Located immediately upstream of the BU Bridge, the Cottage Farm facility treats (with screening, chlorination, and dechlorination) CSO flow before discharge and is the only source of treated CSO discharge to the river.¹² 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. There was only one activation at Cottage Farm in 2025 due to predominately dry conditions in the region (Tables 1-1, 1-2). The Stony Brook/Muddy River outlet (MWR023) 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 the Boston Water and Sewer Commission (BWSC).

Sanitary sewer overflows (SSOs) can also occur in rare circumstances like extreme rain events, sewer breaks, or sewer obstructions, but are not typical in a given year. SSOs are unintentional discharges of wastewater to the environment prior to reaching a treatment facility. SSOs from MWRA's system are reported on MWRA's website and to Massachusetts Energy & Environmental Affairs Data Portal¹³. There were no SSOs from MWRA's system in 2025 to the Charles River.¹⁴

Table 3-3 shows MWRA and community metering results for CSOs affecting the Charles River Basin for 2025. There were a total of 7 CSO activations in 2025 in the Charles River Basin.

The receiving water monitoring 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. Samples collected in 2020¹⁵ and 2021¹⁶ were biased towards wet weather. 2021 was particularly influenced by a higher volume of precipitation than the 1992 Typical Year, back-to-back large storms, and storms with high peak intensities. By comparison, 2025 samples were almost balanced between all weather conditions.

¹² MWRA's Prison Point CSO facility, located near the Charles River mouth, has its discharge point on the Boston Harbor side of the Charles River Dam

¹³ <https://eeaonline.eea.state.ma.us/Portal#!/home>

¹⁴ MWRA Sanitary Sewer Overflow (SSO) Reporting page. http://www.mwra.com/harbor/html/sso_reporting.htm

¹⁵ [Summary of CSO Receiving Water Quality Monitoring in Upper Mystic River/Alewife Brook and Charles River, 2020.](#)

¹⁶ [Summary of CSO Receiving Water Quality Monitoring in Upper Mystic River/Alewife Brook and Charles River, 2021.](#)

Table 3-2. Charles River Basin pollution sources in 2025.

Source	Upper Basin	Mid-Basin	Lower Basin
CSOs (untreated)	2 active, 4 closed CAM005¹ CAM007 CAM009 closed 11/07² CAM011 closed 11/07² 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	Cottage Farm (MWR201) Activated 1 time in 2025	No
Storm drains	Yes	Yes	Yes
Upstream inputs	Yes	Yes	Yes
Dry weather inputs	Yes	Yes	Yes
Tributary brook or stream flow	Yes	Yes	Yes
Sanitary Sewer Overflows (SSOs)	No	No	No

¹Activated in 2025

² Temporarily closed, City retains the right to re-open, will be reevaluated as part of the Updated CSO Control Plan

Table 3-3. Charles River Basin CSO activations, results of meter data and facility records for 2025 system conditions and 2025 rainfall.

CSO Outfall	Activation Frequency	Total Discharge Duration (hr)	Total Discharge Volume (million gallons)
<i>Upper Charles (Upper Basin)</i>			
CAM005 ¹	6	2.25	0.53
CAM007 ¹	-	-	-
REACH TOTAL	6	2.25	0.53
<i>Lower Charles (Mid-Basin)</i>			
CAM017 ¹	-	-	-
MWR010 ²	-	-	-
MWR018 ²	-	-	-
MWR019 ²	-	-	-
MWR020 ²	-	-	-
MWR201 (Cottage Farm Facility) ³	1	6.32	15.02
MWR023 (Stony Brook) ⁴	-	-	-
REACH TOTAL	1	6.32	15.02
REGION TOTAL	7	8.57	15.55

¹ Results from City of Cambridge meter and model data (City of Cambridge 2025 CSO NPDES Annual Report).

² Metered data are estimates of outfall discharge calculated using data from sensors, taking into account physical configurations and constraints (AECOM 2025).

³ Treated discharge. Activation frequency and volume are from MWRA facility records.

⁴ Estimated discharge volume from CSO regulators discharging to the Stony Brook, which also conveys a large amount of stormwater to the Charles River through MWR023.

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

Sampling period	Dry ¹	Damp ¹	Wet ¹	Total
2020-2024 ²	35% 725 station visits	26% 546 station visits	39% 814 station visits	100% 2085 station visits
2025	27.5% 100 station visits	38.5% 140 station visits	34% 124 station visits	100% 364 station visits

¹ See Section 2.1.5 for descriptions of rainfall conditions.

² 2020 and 2021 samples tended to be collected in wetter conditions than other years.

3.3 Summary of water quality, 2021-2025

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, 2021-2025.

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) ¹	Summer	≤ 28.3	21.8±4	99.3	10.2- 28.7	546	22.1±3.6	100	13.3- 28.1	512	22±3.8	100	12-28	126
	Winter	≤ 28.3	5.7±3.3	100	0.2-10.9	48	8.9±0.9	100	7.5- 10.4	14	4.8±2.7	100	1.3-9.9	20
Bottom water dissolved oxygen (mg/L) ¹	Summer	≥ 5.0	7±1.8	87.4	0.2-10.5	430	4±3.1	41.4	0.1- 11.1	503	6.1±2.5	70	0.6-12.4	120
	Winter	≥ 5.0	12.2±1.3	100	10.8- 14.6	19	8.3±5	71.4	0.4- 12.5	14	12.9±0.8	100	11.1-14.1	18
pH ² (S.U.)		6.5-8.3	7.2±0.3	99.9	6.5-8.5	1426	7.2±0.6	93.5	6.7-9	1379	7.2±0.6	94.6	6.4-8.8	407
Water clarity	Total Suspended Solids (mg/L)	NS	5.4±5.6	-	0.2-47.3	242	ND	-	ND	-	3.5±2.5	-	0.2-23.4	119
	Secchi depth (m) ³	NS	0.9±0.3	-	0.2-2	569	1±0.3	-	0.3-2	756	1.2±0.4	-	0.5-2.8	108
	Turbidity (NTU)	NS	5.8±4.5	-	0.2-48.6	1189	5.5±4.1	-	0-41.5	1312	3.9±3.3	-	0.3-39.5	284

For footnotes, see following page.

Table 3-5. Summary of water quality, Charles River Basin, 2021-2025, 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 (#/100mL) ⁴	<i>E. coli</i>	126 / 410 ⁵	203 (184-224)	70.9	0-24200	891	68 (61-75)	87.5	0-48100	1196	58 (48-70)	90.8	0-24200	336
	<i>Enterococcus</i>	35/ 130 ^{5,6}	33 (29-38)	78.3	0-17300	894	10 (9-12)	88.4	0-8160	1196	10 (8-13)	93.2	0-6490	336
Nutrients (µmol/L)	Phosphate	NS	0.6±0.4	-	0.1-3.3	245	ND	-	ND	-	0.6±0.4	-	0-2.3	120
	Ammonium	NS	3.9±3.1	-	0.1-22	245	ND	-	ND	-	5.2±4.4	-	0-20.3	120
	Nitrate+nitrite	NS	34.7±15.8	-	0.3-79.8	245	ND	-	ND	-	32.6±19.6	-	0.1-72.2	120
Algae (µg/L)	Chlorophyll	NS	6.5±8.2	-	0.1-58.6	245	ND	-	ND	-	8.9±8.4	-	0.1-44	120

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

¹ Summer (June-October), Winter (January-March).

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

³ Secchi guideline of ≥1.2 meters provides general benchmark for evaluating signs of eutrophication.

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

⁵ 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 reach for the specified indicator bacteria); the second number is the statistical threshold value - compare to the "% meeting guideline" column (i.e., the "% meeting guideline" column is the percentage of samples meeting the statistical threshold value). The “Range” column gives the range of single sample results.

⁶ Either *E. coli* or *Enterococcus* are acceptable indicators for EPA or MassDEP to assess suitability for swimming in freshwater.

3.4 *Water quality results, 2025*

This section provides an analysis of water quality parameters measured in the Charles River Basin during the 2025 monitoring year.

3.4.1 Physical measurements

Temperature. Summer (June to October) water temperatures for 2025 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 stations 009 and 010, 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 (3 to 10 feet).

Dissolved Oxygen. The spatial trend in summer dissolved oxygen (DO) is shown in the center graph of Figure 3-2. All mean surface water DO measurements met the State standard of ≥ 5.0 mg/L. However, several stations exhibited summer bottom DO means below the minimum standard, generally stations in deeper waters. Stratification, due to saltwater intrusion through the river locks and cooler bottom temperatures, resulted in extremely low bottom water dissolved oxygen in the lower basin area near the Longfellow Bridge. This pattern is seen in past years as well.

Water clarity. Water clarity is indicated by Secchi disk depth. Summer Secchi readings are shown for individual sampling locations in Figure 3-2. Stations 012 and 166 are not sampled by boat, so no Secchi measurements are taken. Higher Secchi depths indicate clearer water, while lower ones suggest higher turbidity (cloudiness) due to suspended solids or algae. In 2025, all stations had mean Secchi depths less than the MADPH beach guideline of 1.2 meters (~ 4 feet), which indicates a decrease in water clarity compared to previous years. A cyanobacteria bloom that occurred in August is one possible factor that influenced this year's lower Secchi depths in the Lower Basin.

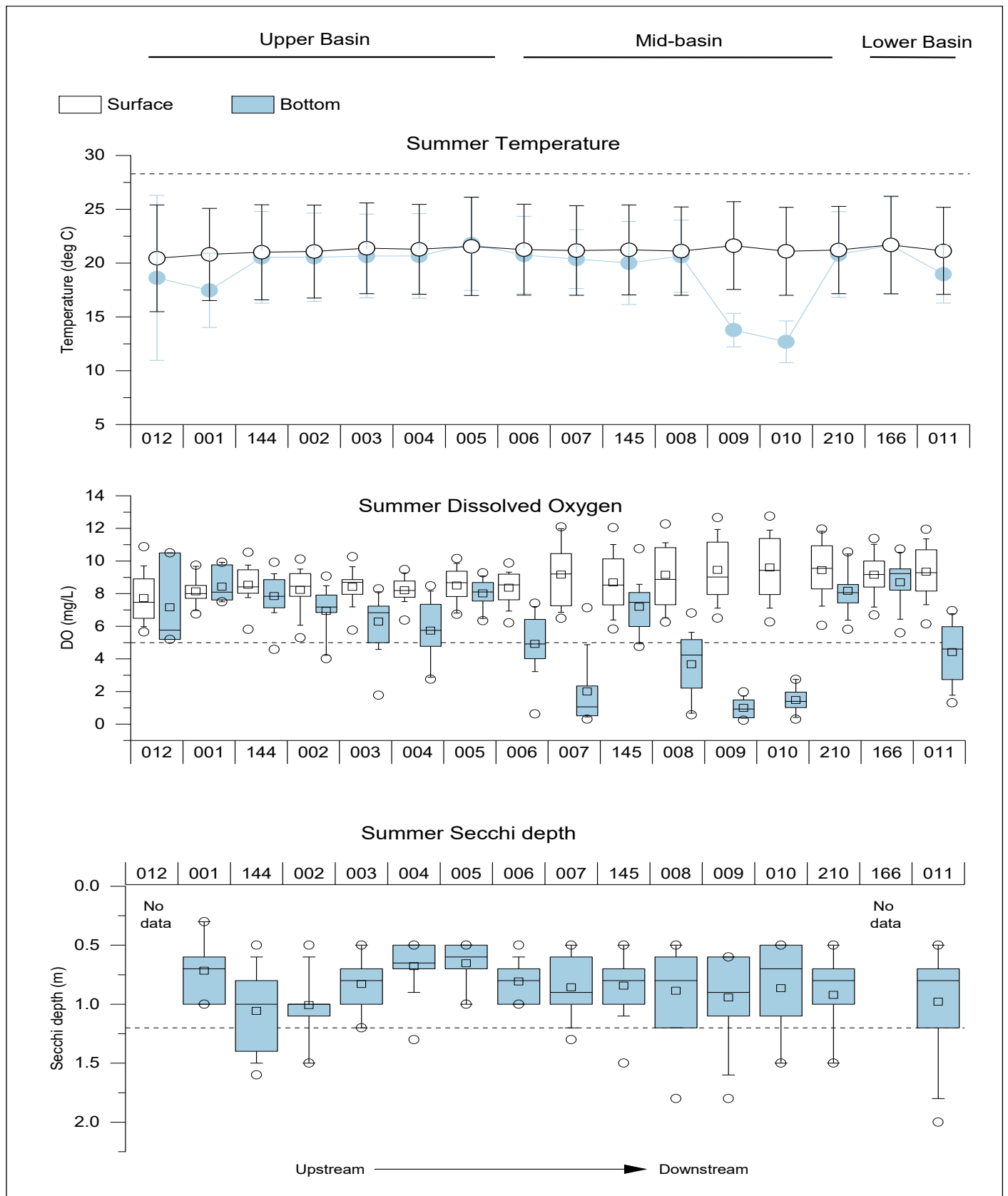


Figure 3-2. Summer (June-October) temperature, dissolved oxygen and Secchi depth, Charles River Basin, 2025. Dashed lines are State standards or guidelines (maximum for temperature, minima for DO and Secchi). Secchi plot has reversed y-axis to visualize depth below the water surface. No Secchi data are available for stations 012 or 166, which are not sampled by boat.

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 three locations in the Charles River Basin are shown in Figures 3-3 through 3-5. Stations 012 (Fig 3-3) and 166 (Fig 3-5) bracket the Charles River Basin, with station 005 (Fig 3-4) roughly halfway between them. 2025 means are plotted against the previous ten years (2015 – 2024) for stations 012 and 166; station 005, 2025 means are compared to the previous four years (2021 – 2024) since sampling from this station started in 2021.

Seasonal patterns for the 2025 monitoring year trended outside of the historic interquartile range (2015 to 2024) for most parameters for most of the year. Seasonal signals during 2025 were evident for nitrate/nitrite and ammonium. At each location, nitrate/nitrite levels were highest in winter when biological uptake is low. Each location exhibits an increase in ammonium concentrations during the spring to summer transition.

Total phosphorus and phosphate concentrations at all three locations generally tracked monthly precipitation patterns. During the wetter months (April through June), concentrations exceeded the historical averages, whereas from July through November, concentrations were lower than or tracked the averages observed in previous years. Elevated phosphate and total phosphorus concentrations in June generally preceded algal blooms observed in the Charles River.

Chlorophyll- α levels peaked twice this season, a strong spring peak with another in the fall at most stations. Station 012 in the Upper Basin tends to exhibit a spring bloom, while late summer blooms are frequent at Lower Basin station 166. A cyanobacteria bloom was observed in August during a period when Massachusetts was under a Level 2 Significant Drought Advisory. A public health advisory was issued on August 1, 2025 by the Boston Public Health Commission to avoid contact with the water. This advisory remained in effect until October 23, 2025.

Finally, the sampling program documented spikes in total suspended solids (TSS) at all stations in the past year. Elevated river TSS is generally associated with periods of heavy rainfall.

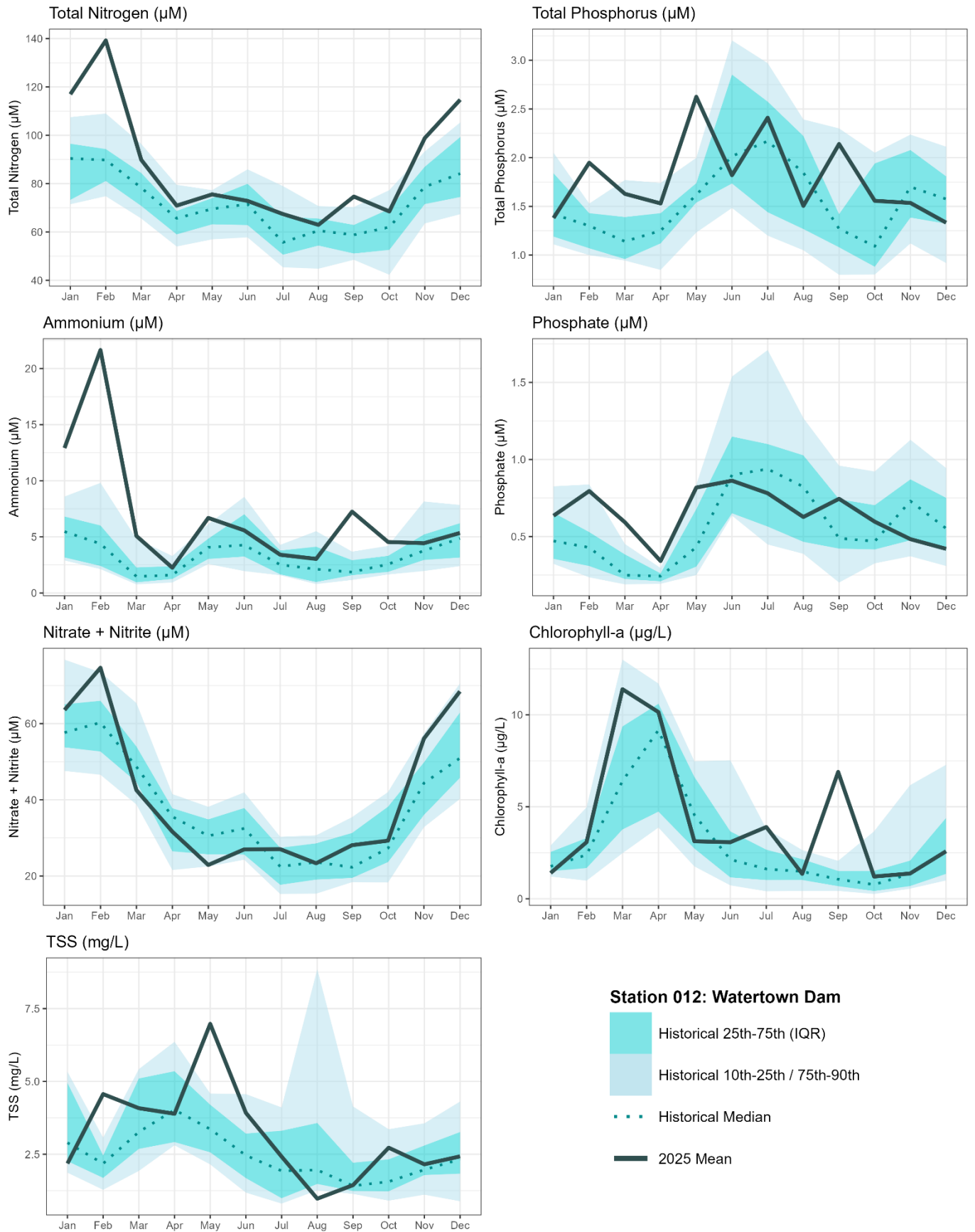


Figure 3-3. Monthly mean nutrients, TSS and Chlorophyll 2015 – 2024 vs. 2025, Station 012, Watertown Dam.
 Note different scales than Figures 3-4, 3-5 for most parameters.

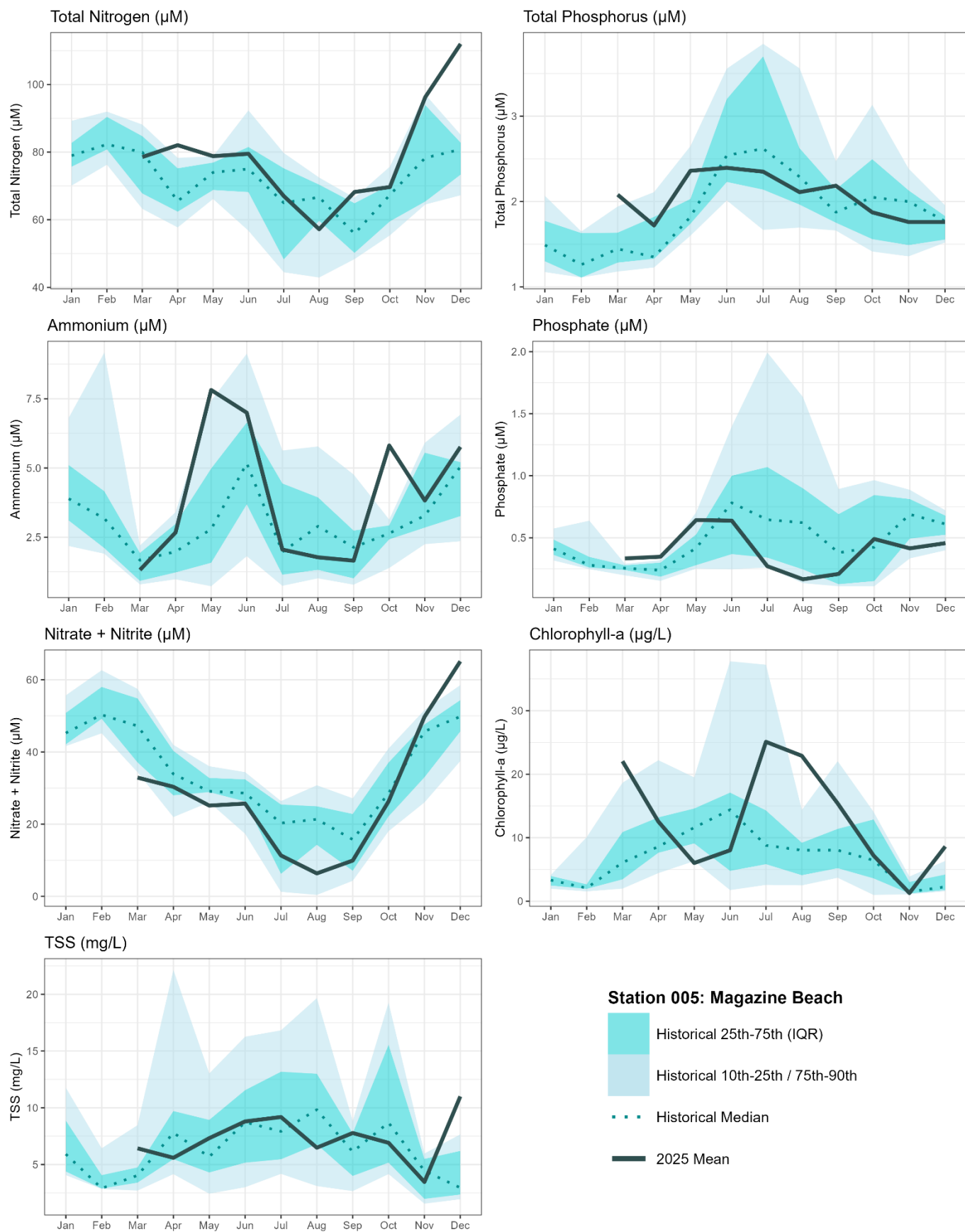


Figure 3-4. Monthly mean nutrients, TSS and Chlorophyll 2021 – 2024 vs. 2025, Station 005, Magazine Beach.

Note different scales than Figures 3-3, 3-5 for most parameters.

Collection and analysis of these parameters at station 005 began in 2021.

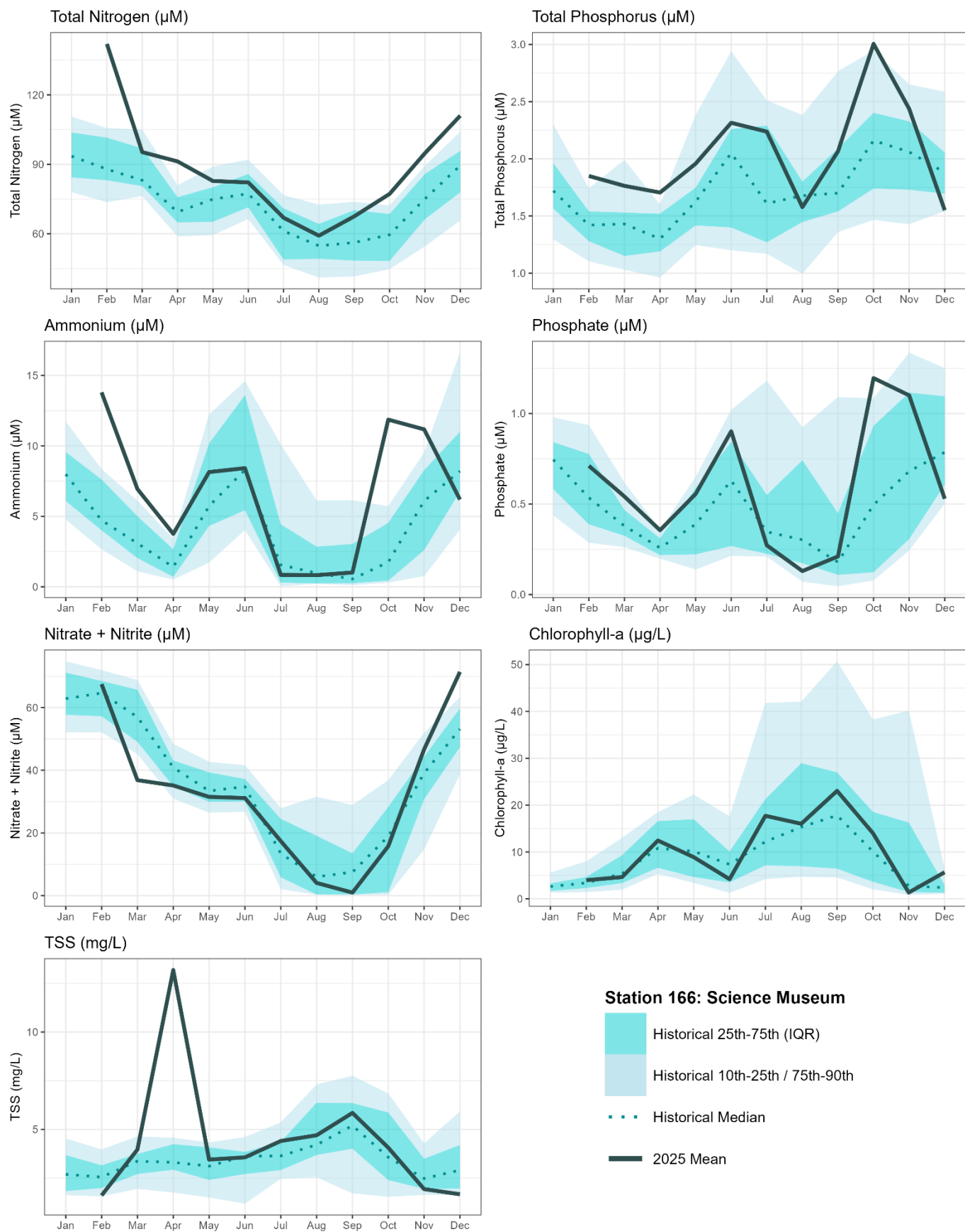


Figure 3-5. Monthly average nutrients, TSS and Chlorophyll 2015 – 2024 vs. 2025, Station 166, Science Museum.
 Error bars are ± 1 SD. Note different scales than Figures 3-3, 3-4 for most parameters.

3.4.3 Bacterial water quality

Figure 3-6 shows the 2025 bacterial water quality at each location sampled in the Charles for dry, damp, and wet weather. The rainfall categories were 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 was paired with the closest rain gauge. As shown in Table 3-4, 2025 sampling in the Charles Basin was relatively balanced between all weather conditions compared to the 2020-2024 data biased slightly toward wet weather conditions.

The top and bottom graphs in Figure 3-6 show percentile plots of *Enterococcus* and *E. coli* counts arranged from upstream to downstream locations for 2025 (note log scale). In 2025, *Enterococcus* and *E. coli* counts followed the historical spatial trend of more elevated bacteria counts upstream relative to downstream locations. Stations upstream of 009 at the Longfellow Bridge generally had higher mean bacteria counts and interquartile ranges in all weather conditions compared to downstream stations. For *Enterococcus*, the majority of the samples in the Mid and Lower Basins were below the statistical threshold value even in wet weather. Mid and Lower Basin stations predominately had greater than 50% of sample results below both standards in dry and damp conditions for both *Enterococcus* and *E. coli*.

Geometric means for each location under all rain conditions for 2020 – 2024 and 2025 appear in Table 3-6. If the 95% confidence intervals (CI) for the two periods overlap, this generally indicates no statistically significant difference between the two geometric means. For both indicators, 2025 geometric means were not significantly different than the previous 5 years and were distributed similarly to other dry years (2022¹⁷, 2024¹⁸). CIs for both indicators were generally higher and broader for 2025 than for 2020 – 2024. All stations downstream of 003 had surface *Enterococcus* annual geometric means below the MassDEP standard while geometric means met the standard at all stations downstream of 145 for surface *E. coli*.

Figure 3-7 shows the impact of rainfall on *Enterococcus* counts in the three Charles River Basin reaches (upper figure), along with results for individual locations near CSO outfalls (lower figure). Here, wet weather is broken down further into light and heavy rain conditions. The upper figure shows that for 2025, bacterial concentrations in the Upper Basin – with most stations upstream of CSO discharges - were routinely higher than Mid-Basin and Lower Basin stations under all weather conditions. The 2025 geometric means, approximated by the line within the box, were below the state standard in dry and damp conditions, exceeded in light and heavy rain in the Upper Basin, and predominately exceeded in heavy rain in the Mid Basin. The lower figure shows that stations upstream of the Longfellow Bridge had elevated *Enterococcus* levels relative to others downstream.

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 Figures 3-8 and Figure 3-9. Results are grouped by phases of the LTCP improvements with the last period (2014-2025) following the completion of all LTCP-related projects in the Charles to date. These figures show change over time in both regions, with significant improvement in water quality from the initial phase to the latest phase. Looking at the current phase, the Upper Basin shows improvement across all conditions and can meet the geometric mean swimming standard in all conditions except in wet weather. The Mid and Lower Charles Basins can meet the geometric mean swimming standard in all conditions except heavy rainfall.

¹⁷ [Summary of CSO Receiving Water Quality Monitoring in Upper Mystic River/Alewife Brook and Charles River, 2022](#)

¹⁸ [Summary of CSO Receiving Water Quality Monitoring in Upper Mystic River/Alewife Brook and Charles River, 2024](#)

Mapped 2025 compliance rates with State statistical threshold values by rainfall condition are shown in Figures 3-10 (*Enterococcus*) and 3-11 (*E. coli*). Compliance rates greater than 90% (darkest blue) meet this standard, though sample sizes broken down by weather condition were small (<20). There were at least 8 samples collected in wet weather at each station. Three surveys were conducted within two days of a CAM005 CSO discharge (Appendix II), representing less than 40% of the 2025 wet weather data.

For *Enterococcus*, only 006 in dry weather and 001 in damp weather met standards. In wet weather, compliance rates ranged from less than 40% to 100%, exhibiting the same upstream to downstream improvement in water quality discussed above. Upper Basin stations 144 and 002 had the lowest compliance rates during wet weather for *Enterococcus*.

Compared to *Enterococcus*, compliance rates for *E. coli* were slightly lower across all weather conditions. All stations showed 80% or greater compliance for dry weather, except for 001 near the Newton Yacht Club, upstream of all CSOs. In damp weather, there is a general increase in compliance moving downstream through the three basins. Similar to *Enterococcus*, the lowest compliance rates in wet weather for *E. coli* were found in the Upper Basin. As stated in previous reports, stations at the widest portion of the river (Lower Basin) have exhibited high compliance rates in wet weather, even those immediately downstream of untreated CSOs (stations 009 and 210).

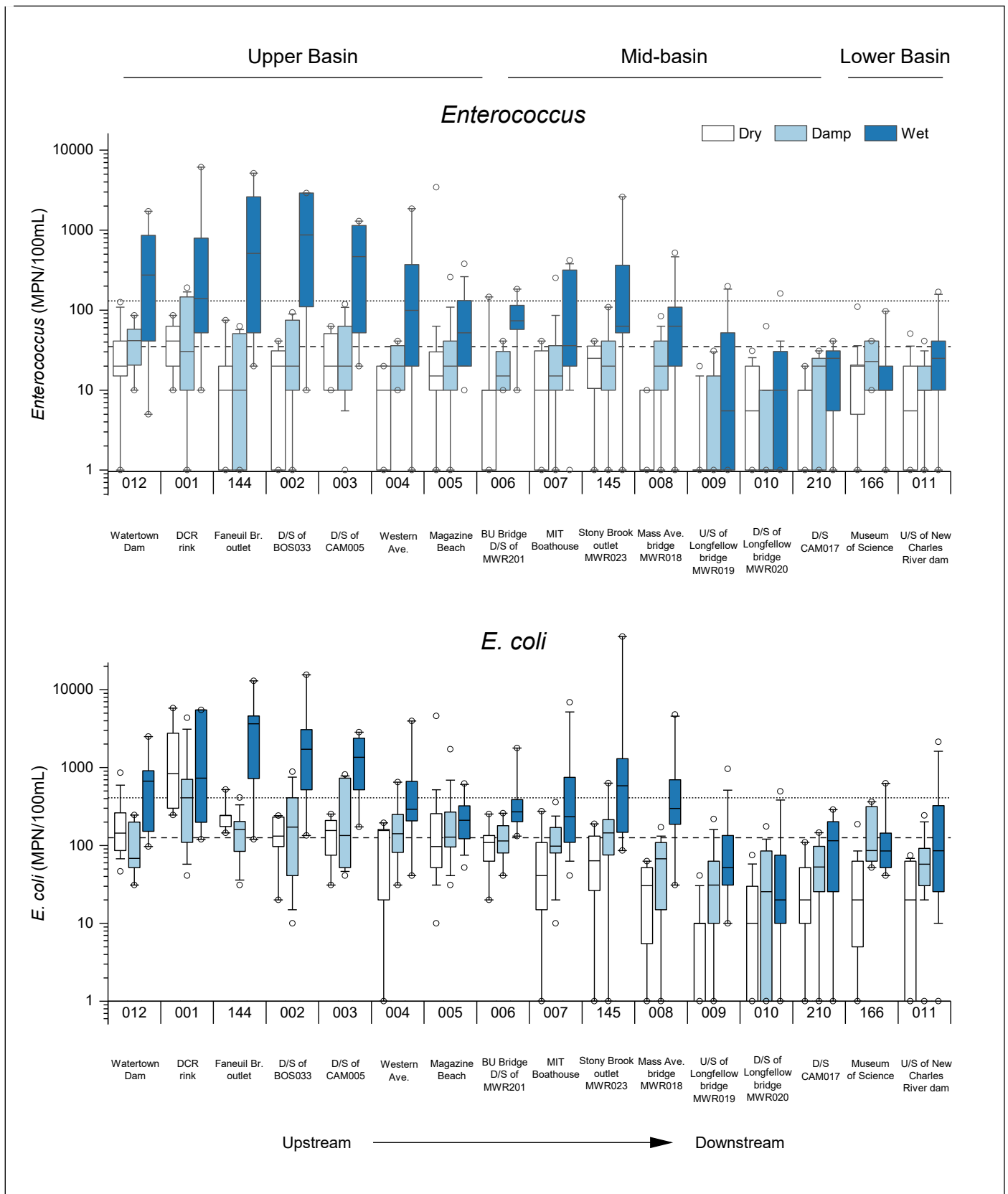


Figure 3-6. Indicator bacteria concentrations, Charles River Basin, 2025.

Dashed lines show MassDEP *Enterococcus* and *E. coli* geometric mean standards, dotted lines show statistical threshold values. See Section 2.1.5 for definitions of rainfall conditions. “D/S” and “U/S”: downstream and upstream, respectively. Station 006 includes samples from nearby station 206.

Table 3-6. Geometric mean indicator bacteria, Charles River Basin, 2020 – 2024 and 2025.Geomeans over the limits are in **bold**.

Station	Location	Surface or Bottom	Number of samples		<i>Enterococcus</i> (95% CI) ¹ MPN/100 mL DEP limit: 35 MPN/100 mL				<i>E. coli</i> (95% CI) ¹ MPN/100 mL DEP limit: 126 MPN/100 mL			
			2020- 2024	2025	2020 – 2024		2025		2020 – 2024		2025	
012	Newton/Watertown, footbridge upstream of Watertown Dam	S	142	26	45	(33-62)	31	(15-62)	186	(153-226)	170	(111-259)
001	Newton, near Nonantum Rd., rear of DCR skating rink	S	126	21	45	(33-63)	46	(19-108)	272	(213-348)	593	(315-1115)
144	Brighton, downstream of N. Beacon St. bridge, Faneuil Brook outlet, BOS032 (closed 1999)	S	106	21	36	(24-54)	22	(7-70)	261	(202-337)	290	(149-564)
002	Allston, downstream of Arsenal Street bridge, BOS033	S	126	21	38	(27-53)	34	(11-96)	234	(187-291)	226	(104-491)
003	Allston/Cambridge, midstream, near Mt. Auburn Street, between CAM005 and CAM007	S	126	21	25	(17-36)	41	(19-88)	159	(126-202)	264	(147-474)
004	Allston/Cambridge, midstream, between River Street and Western Avenue bridges	S	105	21	13	(8-21)	23	(10-53)	87	(63-121)	146	(72-296)
005	Cambridge, near Magazine Beach, upstream of Cottage Farm	S	243	41	28	(22-37)	24	(14-41)	169	(139-206)	162	(114-231)
006	Cambridge/Boston, midstream, downstream of Cottage Farm, BU bridge	S	126	21	24	(16-35)	23	(12-44)	125	(95-165)	157	(105-233)
007	Cambridge, near Memorial Dr., MIT Boathouse	S	126	21	16	(11-22)	18	(8-37)	85	(64-114)	116	(63-213)
		B	106	21	19	(13-28)	27	(12-60)	82	(58-115)	160	(73-346)
145	Boston (Charlesgate), Muddy River/Stony Brook outlet	S	126	21	20	(14-30)	33	(13-77)	150	(110-204)	169	(62-457)
008	Cambridge/Boston, midstream, downstream of Harvard Bridge	S	106	21	10	(6-15)	14	(6-33)	72	(49-104)	86	(34-213)
		B	106	21	16	(11-24)	18	(7-43)	89	(62-129)	76	(30-188)
009	Cambridge/Boston, midstream, upstream of Longfellow Bridge near Community Sailing	S	127	23	4	(3-6)	8	(3-18)	51	(37-70)	40	(18-87)
		B	106	21	3	(2-4)	0	(0-1)	34	(25-47)	13	(7-24)
010	Boston, downstream of Longfellow Bridge, MWR022	S	106	21	5	(3-7)	5	(2-11)	32	(21-47)	33	(15-73)
		B	106	21	5	(3-8)	2	(1-4)	21	(15-28)	5	(2-11)
210	Cambridge, Cambridge Pkwy (at CAM017)	S	126	21	5	(4-8)	7	(3-14)	49	(38-63)	33	(15-72)
166	Boston, old Charles River dam, rear of Science Museum	S	124	22	10	(7-15)	13	(7-23)	68	(51-91)	43	(21-86)
011	Boston, upstream of Charles River Dam and I-93, near Nashua St.	S	126	21	7	(5-10)	8	(4-16)	65	(48-86)	38	(15-92)
		B	106	21	17	(13-23)	12	(6-25)	56	(42-75)	48	(24-96)

¹ The MassDEP limits are geometric means for both *Enterococcus* and *E. coli*.² Includes samples taken at both 006 and 206.

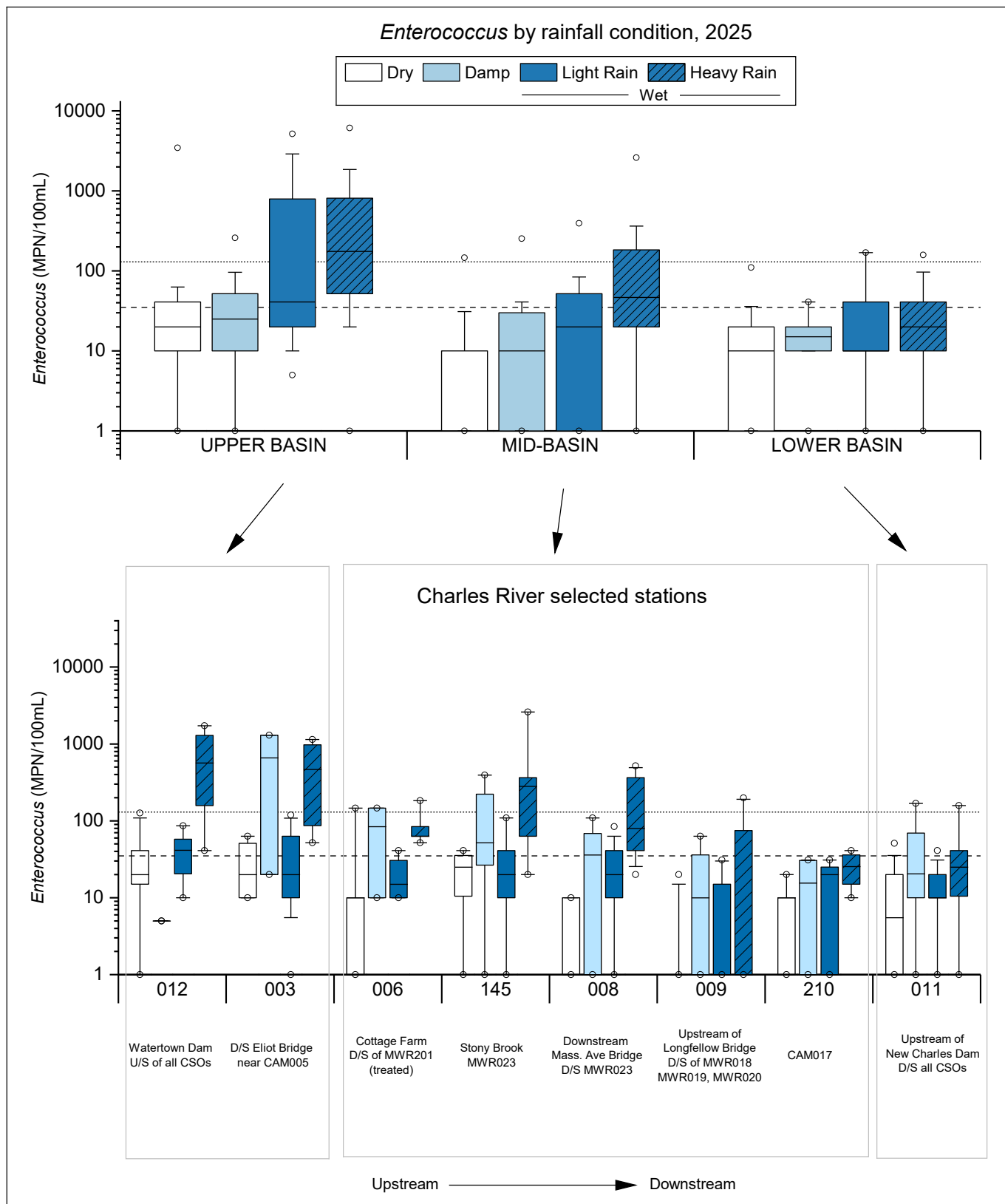


Figure 3-7. Enterococcus by rainfall condition, Charles River Basin, 2025.

Dashed line shows State geometric mean standard (35 MPN/100mL), dotted line shows statistical threshold value (130 MPN/100mL). Rainfall is from the nearest rainfall gauge. See Section 2.1.5 for definitions of rainfall conditions. “D/S”: downstream. Station 006 includes samples from nearby station 206.

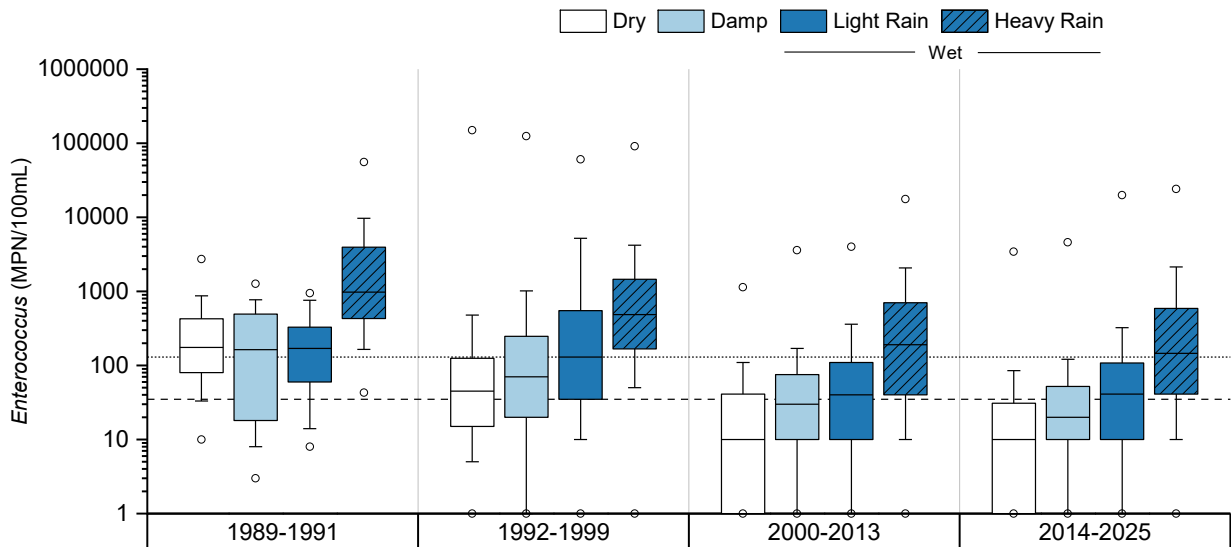


Figure 3-8. *Enterococcus* over time, Upper Charles Basin (upstream of most CSOs) by phase of Long Term CSO Plan and rainfall condition.

Dashed line shows State geometric mean standard (35 MPN/100mL), dotted line shows statistical threshold value (130 MPN/100mL). Data includes results for stations 012, 001, 144, 002, 004, and 005. Rainfall is NOAA rainfall from Logan airport. See Section 2.1.5 for definitions of rainfall conditions.

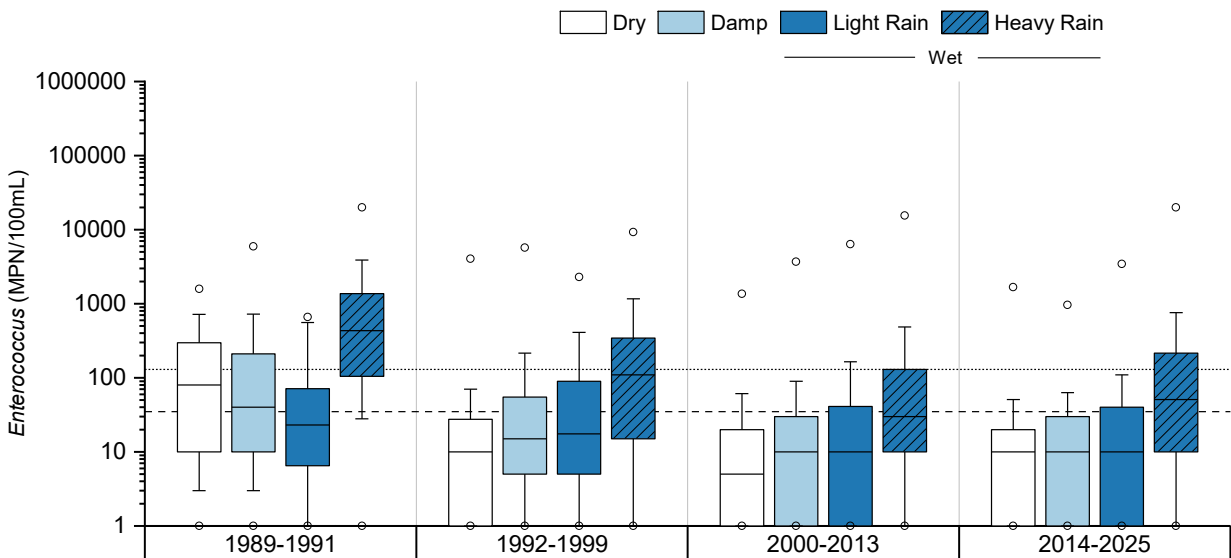


Figure 3-9. *Enterococcus* over time, Lower and Middle Charles Basin by phase of Long Term CSO Plan and rainfall condition.

Dashed line shows State geometric mean standard (35 MPN/100mL), dotted line shows statistical threshold value (130 MPN/100mL). Data includes results for all stations from 006 (BU Bridge) downstream. Rainfall is NOAA rainfall from Logan airport. See Section 2.1.5 for definitions of rainfall conditions.

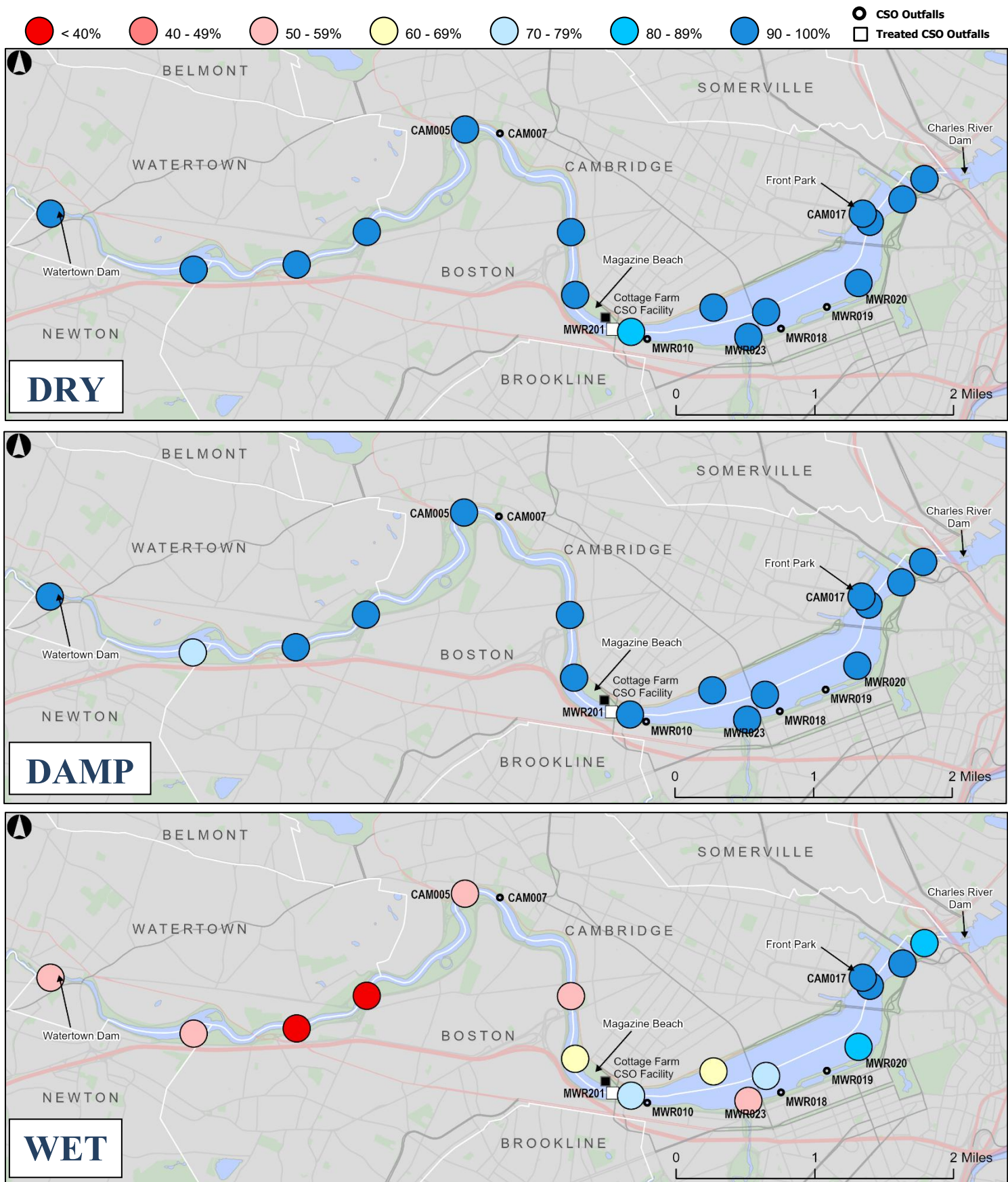


Figure 3-10. Charles River *Enterococcus* percent compliance by weather condition, 2025.

Compliance with 130 MPN/100mL statistical threshold value. Rainfall is from nearest rain gauge to station. See Section 2.1.5 for definitions of rainfall conditions. Dots are the monitoring locations pictured in Figure 3-1 and listed in Table 3-1.

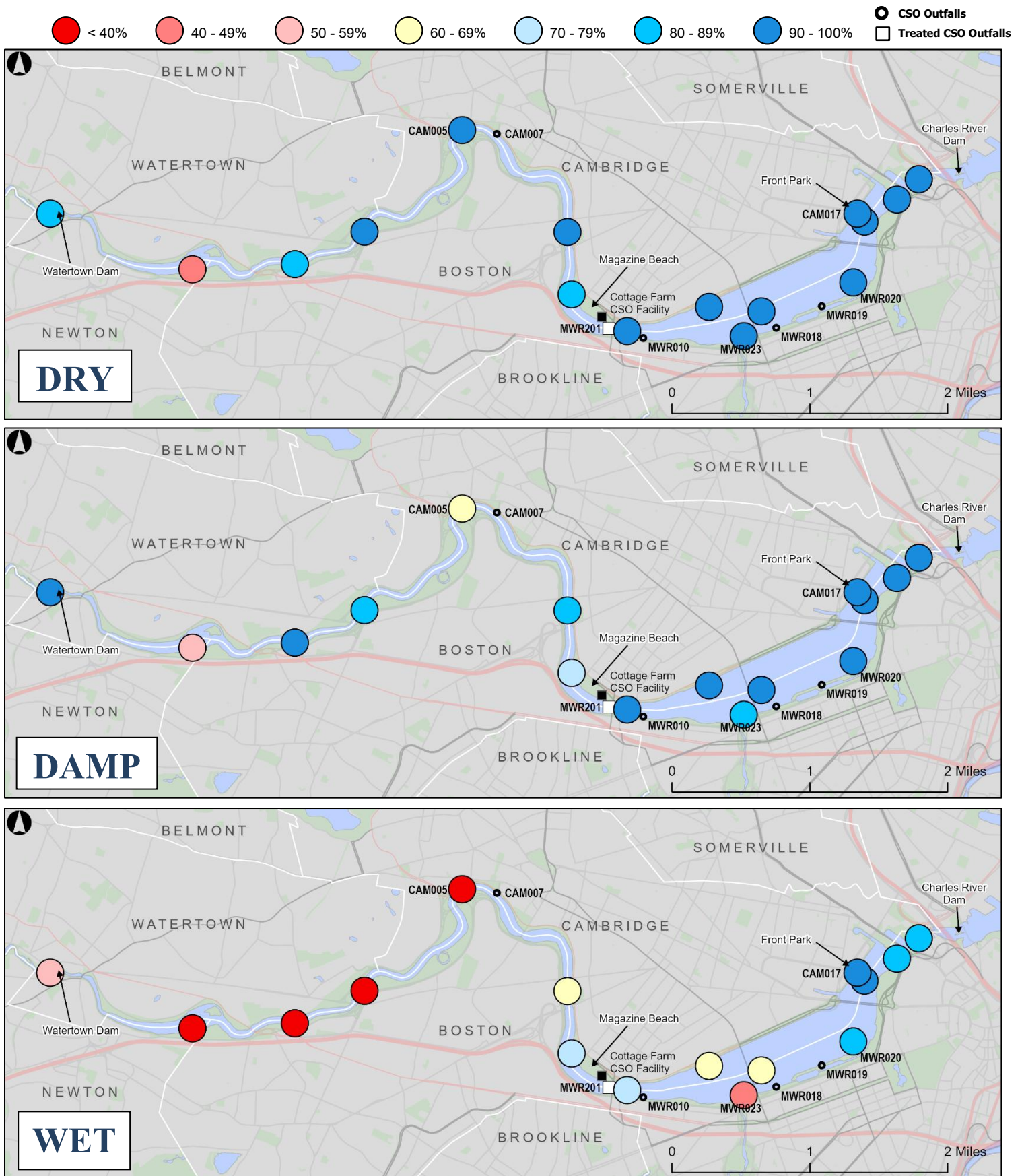


Figure 3-11. Charles River *E. coli* percent compliance by weather condition, 2025.

Compliance with 410 MPN/100mL statistical threshold value. Rainfall is from nearest rain gauge to station. See Section 2.1.5 for definitions of rainfall conditions. Dots are the monitoring locations pictured in Figure 3-1 and listed in Table 3-1.

3.5 Summary of Charles River Water Quality

Spatial differences in 2025 bacterial water quality in the Charles River were most pronounced in wet conditions. In wet conditions, fewer samples met standards in much of the Upper Basin and more samples met standards further downstream. Annual geometric means in the Charles were generally below state standards and were distributed similarly to other years with below average rainfall (2022, 2024). Most stations routinely met *Enterococcus* and *E. coli* standards in dry and damp conditions with exceedances occurring in much of the Upper Basin in wet weather, upstream of any influence from CSO outfalls. Chapter 5 provides a detailed analysis of bacteria concentrations following storms of various sizes and the time it takes for bacteria counts to return to baseline.

As shown in Figure 3-8 and 3-9, *Enterococcus* counts have generally decreased in all reaches of the Charles River, in all weather conditions, through the progression of MWRA's Long Term CSO Plan. In the 2014-2025 period, after completion of construction projects in the study area, the geometric mean of *Enterococcus* in all reaches predominately meets state standards in all but heavy rain.

Surface water dissolved oxygen met standards at all stations in the Charles River. Bottom-water dissolved oxygen generally met standards in the Upper Charles Basin but was below minimum standards in the deeper waters of the Mid-Basin and near the Charles River Dam. Any saltier harbor water that is trapped within the Charles after entering through the dam's locks settles into deeper parts of the river basin and contributes to stratification, which limits exchange with more oxygenated surface waters.

Overall, 2025 nutrient, TSS, and chlorophyll levels were higher than the long-term interquartile range. Both total phosphorus and total nitrogen aligned with historical trends. Phosphate concentrations trended above average during May and June, likely due to increased rainfall. However, no significant algae or cyanobacteria blooms were observed in the Lower Basin during that May to June timeframe. Early summer increases in total phosphorus and phosphate were followed by increases in chlorophyll. A cyanobacteria bloom occurred in the Lower Basin from August through October and required a public health advisory.

4 Mystic River and Alewife Brook

4.1 Sampling area

Monitoring results of the Mystic River and tributaries are divided into four reaches: Alewife Brook; Upper Mystic; River; Lower Mystic River basin; and Mystic River mouth. Table 4-1 describes the reaches and the sampling locations within each reach. Sampling locations and CSOs appear in Figure 4-1 with labeled landmarks that delineate the reach boundaries.

In 2017, stations 277 and 276 were added to support the CSO performance assessment described in Chapter 1. In 2021, nutrient sampling was added to station 177 in the Lower Mystic River basin.

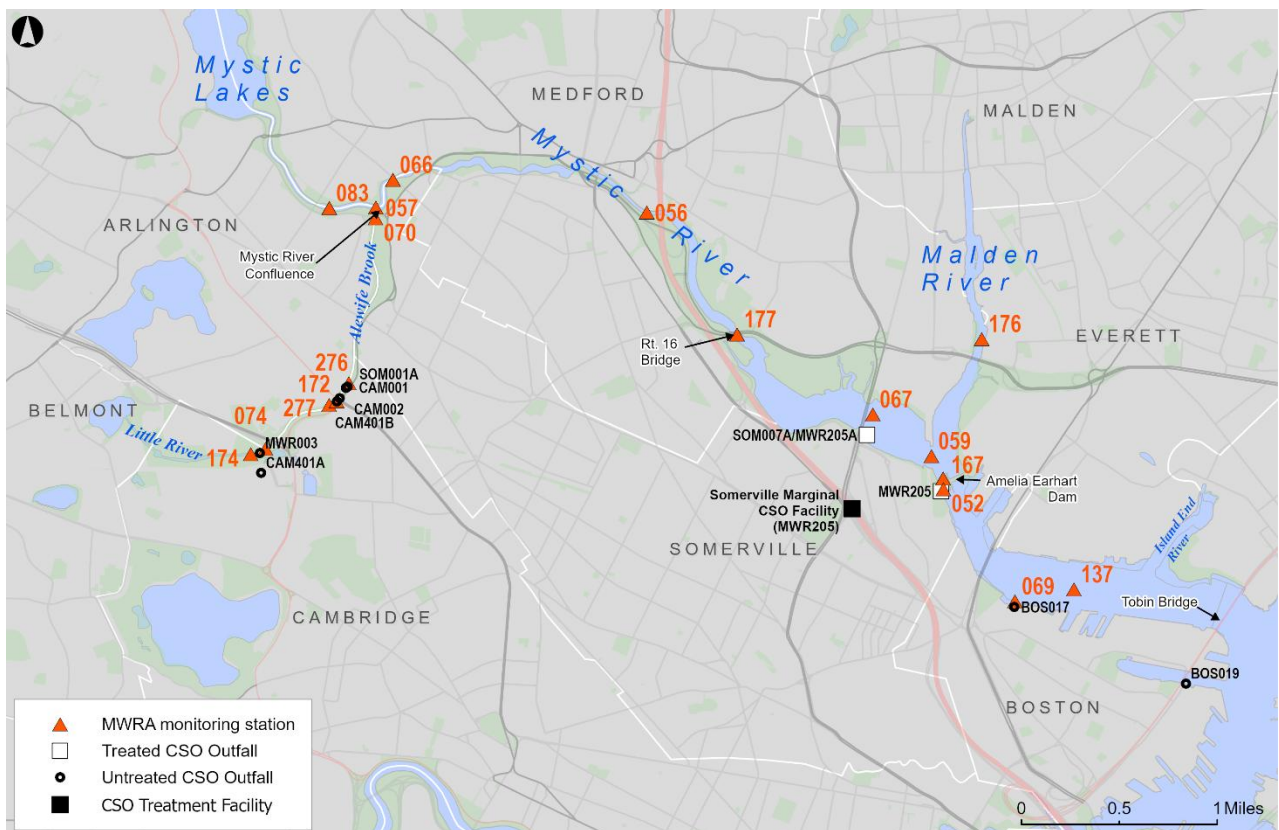


Figure 4-1. Map of Mystic River sampling locations.

4.2 Pollution sources

Known pollution sources to the Mystic River/Alewife Brook are shown in Table 4-2 and consist primarily of stormwater, upstream inputs, and CSOs. Upstream of the Amelia Earhart Dam, there are seven CSO outfalls located in Cambridge and Somerville. This includes six active CSO outfalls in Alewife Brook, and one treated CSO outfall in the Lower Mystic basin (Somerville Marginal CSO, MWR205A/SOM007A). MWR205A/SOM007A discharges screened, chlorinated, and dechlorinated flow from the Somerville Marginal CSO Treatment Facility during an activation occurring at high tide. At low tide, the Somerville Marginal facility discharges screened, chlorinated, and dechlorinated flow downstream of the Amelia Earhart dam from CSO outfall MWR205. MWR205 is the only source of treated CSO discharge to the Mystic River below the Amelia Earhart dam, but there is an untreated outfall (BOS017) as well. Although this area downstream of the dam is not in the variance area for the Alewife Brook/Upper Mystic River, water quality results are included in this report. In 2025, CAM401A was the most frequent CSO discharge to Alewife Brook, discharging seventeen times (Table 4-3). Somerville Marginal Relief Outfall SOM007A/MWR205A, the only CSO in the freshwater portion of the Mystic River, had five activations in 2025.

Sanitary sewer overflows (SSOs) can also occur in rare circumstances like extreme rain events, sewer breaks, or sewer obstructions, but are not typical in a given year. SSOs are unintentional discharges of wastewater to the environment prior to reaching a treatment facility. SSOs from MWRA's system are reported on MWRA's website and to Massachusetts Energy & Environmental Affairs Data Portal¹⁹. There were no SSOs that reached the Mystic/Alewife in 2025.²⁰

Table 4-3 shows the MWRA, Cambridge, and Somerville meter results for CSOs affecting the Mystic River and Alewife Brook in calendar year 2025. Measured CSO volumes and activation frequency are available for the Somerville Marginal CSO facility. Table 4-4 summarizes the proportion of samples collected in dry, damp, and wet weather. As mentioned in Chapter 3.2, this monitoring program is designed to capture water quality in all weather conditions from March through October.

¹⁹ <https://eeaonline.eea.state.ma.us/Portal#!/home>

²⁰ MWRA Sanitary Sewer Overflow (SSO) Reporting page. http://www.mwra.com/harbor/html/sso_reporting.htm

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

Reach	Description of Reach	Sampling station	Location Description	Average Depth (meters(feet))
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	Little River, upstream of Rt. 2 and off ramp to Alewife T station. Upstream of all CSOs	0.2 (0.5)
		*074, Cambridge/Arlington	Downstream of CAM401A, MWR003	0.2 (0.5)
		*277, Cambridge/Arlington	Upstream of CAM401B	0.2 (0.5)
		*172, Cambridge/Arlington	Downstream of CAM401B	0.8 (2.5)
		*276, Cambridge/Arlington	Downstream of SOM001A	0.2 (0.5)
		*070, Arlington/Somerville	Mystic Valley Parkway bridge. Downstream of all Alewife CSOs	0.7 (2)
Upper Mystic River (Class B/Variance, warm water fishery)	Downstream of Lower Mystic Lake in Arlington/Medford to Route 16 bridge in Medford	†*083, Arlington/Medford	Upstream of confluence of Mystic River and Alewife Brook	1 (3)
		*057, Medford	Confluence of Mystic River and Alewife Brook	0.9 (3)
		†066, Medford	Boston Ave bridge, downstream side	1.2 (4)
		*056, Medford	Upstream of I-93 bridge, near Medford Square off ramp	2.9 (9.5)
Lower Mystic River basin (Class B/Variance, warm water fishery)	Route 16 bridge in Medford to Amelia Earhart Dam in Somerville/Everett, including the Malden River	†177, Medford	Downstream of Rt. 16 bridge	2.7 (9)
		*067, Medford	Rt. 28 bridge, downstream side, near Somerville Marginal MWR205A outfall	2.6 (8.5)
		*176, Medford/Everett	Malden River, upstream of Rt. 16 bridge	1.9 (6)
		059, Somerville/Everett	Confluence of Mystic and Malden Rivers	1.8 (6)
		†*167, Somerville/Everett	Amelia Earhart Dam, upstream side	3.6 (12)
Mystic River mouth (Class SBcso, marine)	Downstream of Amelia Earhart Dam in Somerville/Everett to Tobin Bridge, Chelsea R. confluence in Chelsea/East Boston	052, Somerville	Downstream of Amelia Earhart dam, near Somerville Marginal CSO facility outfall (MWR205)	3.3 (11)
		069, Charlestown	Rear of Schrafft's Center at BOS017 outfall	4.1 (13.5)
		†137, Charlestown/Everett	Upstream of Tobin Bridge near confluence of Mystic, Chelsea Rivers and upper inner harbor	13.3 (44)

Sampling locations are midstream unless otherwise noted.

* indicates sampling location is also a shoreline sampling location.

† indicates a sampling location sampled for nutrients, TSS, chlorophyll in eutrophication monitoring project.

x indicates inactive station, not sampled during the report year.

Table 4-2. Mystic River/Alewife Brook pollution sources in 2025.

Source	Alewife Brook	Upper Mystic River	Lower Mystic Basin	Mystic River mouth
CSOs (untreated)	6 active, 7 closed CAM401A ¹ MWR003 ¹ CAM001 CAM002 CAM401B ¹ SOM001A ¹ 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	No	1 active BOS017
CSO treatment facility (screened, chlorinated and dechlorinated CSO discharge)	No	No	Somerville Marginal (MWR205A/SOM007A ¹ , high tide only) Activated 5 times in 2025	Somerville Marginal (MWR205 ¹) Activated 27 times in 2025
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
Sanitary Sewer Overflows (SSOs) ²	No	No	No	No

¹ Activated in 2025

² From MWRA-owned system.

Table 4-3. Mystic River/Alewife Brook CSO activations, results of metered data and facility records for 2025 system conditions and 2025 rainfall.

CSO Outfall	Activation Frequency	Total Discharge - Duration (hours)	Total Discharge – Volume (million gallons)
<i>Alewife Brook (freshwater outfalls)</i>			
CAM001 ¹	0	0.00	0.00
CAM002 ³	0	0.00	0.00
MWR003 ²	0	0.00	0.00
CAM401A ¹	17	16.17	10.15
CAM401B ³	2	1.00	0.04
SOM001A ⁴	3	1.09	1.1
REACH TOTAL	22	18.26	11.29
<i>Upper Mystic River (Lower Mystic River Basin, freshwater outfall)</i>			
SOM007A/ MWR205A ⁵	5	7.25	8.38
REACH TOTAL	5	7.25	8.38
<i>Mystic/Chelsea Confluence (Mystic River mouth, marine outfalls)</i>			
MWR205 ⁵	27	51.63	39.1
BOS017 ²	0	0.00	0.00
REACH TOTAL	27	51.63	39.1
TOTAL	54	77.14	58.77

¹ Results from City of Cambridge meter data (City of Cambridge 2025 CSO NPDES Annual Report, 2026).

² Metered data are estimates of outfall discharge calculated using data from sensors, taking into account physical configurations and constraints (AECOM 2026).

³ Results from City of Cambridge meter and model data (Unified Model, January 2026 build) (City of Cambridge 2025 CSO NPDES Annual Report, 2026).

⁴ Results from City of Somerville meter data (City of Somerville, 2026).

⁵ Treated discharge. Activation frequency and MWR205 volume are from MWRA facility records. SOM007A/MWR205A volume estimate is calculated using data from a sensor at the outfall, and includes stormwater that enters the conduit downstream of the facility as well as treated CSO.

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

Sampling period	Dry ¹	Damp ¹	Wet ¹	Total
2020 – 2024	40% 903 station visits	21% 481 station visits	39% 872 station visits	100% 2256 station visits
2025	30% 124 station visits	43% 178 station visits	27% 114 station visits	100% 416 station visits

¹ See Section 2.1.5 for descriptions of rainfall conditions.

4.3 Summary of water quality, 2021-2025

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, 2021 – 2025.

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) ¹	Summer	≤ 28.3	19.7±3.3	100	9.7-25.3	355	21.8±3.9	99.7	9.9-28.4	323	21.8±3.9	99.2	10.7-28.3	253	22.1±3.9	100	11.3-28.3	72	18.6±2.2	100	12.8-24.4	193
	Winter		6.6±1.6	100	4.2-8.2	15	4.3±2.1	100	0-8.2	49	5±2.3	100	0-9.6	41	6.7±3	100	3.8-9.8	3	4.2±1.5	100	1.1-6.2	29
Bottom water dissolved oxygen (mg/L) ¹	Summer	≥ 5.0	3±0.7	0	1.6-3.8	8	5.7±2.1	68.5	0.2-10.1	232	6.3±3.1	67.5	0.1-15.2	203	6.4±2.8	68.6	0.3-15.3	70	6.3±1.6	80.1	1.5-11.2	186
	Winter	≥ 5.0	ND	-	ND	-	11.7±0.8	100	10.2-13.1	20	10.8±2	100	5.8-13.7	28	9.8±2.6	100	6.9-11.5	3	10.5±0.8	100	8.6-11.9	28
pH ² (S.U.)		6.5-8.3 (8.5 marine)	7±0.3	99.6	6.4-7.9	463	7.4±0.5	96.5	6.2-8.9	829	7.5±0.8	80.5	5.9-9.5	711	7.7±0.7	79.7	6.7-9.3	182	7.8±0.2	99.8	7.1-8.4	572
Water clarity	Total Suspended Solids (mg/L)	NS	ND	-	ND	-	3.7±2.3	-	0.2-20.4	244	6.1±6.4	-	0.3-74.6	231	ND	-	ND	-	4.4±4.1	-	0.8-25.1	206
	Secchi depth (m) ³	≥1.2	ND	-	ND	-	1.1±0.4	-	0.5-2.5	136	0.8±0.3	-	0.2-2.6	200	0.7±0.2	-	0.2-1.6	100	2.3±0.9	-	0.5-5.5	268
	Turbidity (NTU)	NS	6.5±5.7	-	0.8-42.4	154	4.5±3.5	-	0.1-26.6	535	6.6±4	-	0.4-26.4	484	7.8±4.5	-	0.1-28.2	176	4.3±3	-	0.2-21.7	560

For footnotes, see following page.

Table 4-5. Summary of water quality, Mystic River/Alewife Brook, 2021 - 2025, 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 (#/100mL) ⁴	Fecal coliform	200 / 400 ⁵	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	ND	-	29 (23-37)	83	0-200,000	542
	<i>E. coli</i>	126 / 410 ^{5,6}	626 (560-700)	42.6	0-153000	610	134 (117-153)	82.5	0-39900	549	123 (106-143)	81.4	0-12000	435	196 (140-274)	71	0-1990	100	ND	-	ND	-
	<i>Enterococcus</i>	35/ 130 ⁵	217 (191-246)	37.2	0-50400	624	43 (37-51)	74.6	0-43200	555	16 (13-20)	84.4	0-1120	441	23 (16-34)	85.3	0-10500	102	6 (5-7)	87.3	0-17300	550
Nutrients (µmol/L)	Phosphate	NS	ND	-	ND	-	0.4±03	-	0-3.4	247	0.5±0.7	-	0-5.6	234	ND	-	ND	-	0.8±0.4	-	0-2	233
	Ammonium	NS	ND	-	ND	-	10.6±7.8	-	0.4-28	247	8.9±7.1	-	0-32.1	234	ND	-	ND	-	4.1±2.9	-	0-16.1	233
	Nitrate+nitrite	NS	ND	-	ND	-	41.8±22.5	-	0.4-125	247	34.5±23.1	-	0-75.9	234	ND	-	ND	-	7±7.2	-	0-35	233
Algae (µg/L)	Chlorophyll <i>a</i>	NS	ND	-	ND	-	7.4±6.6	-	0.4-60.2	247	16.9±22.1	-	0.9-156	234	ND	-	ND	-	2.8±3.9	-	0.2-33.8	233

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

¹ Summer (June-October), Winter (January-March).

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

³ Secchi guideline of ≥1.2 meters provides general benchmark for evaluating signs of eutrophication.

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

⁵ 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 statistical threshold value - compare to the "% meeting guideline" column (i.e., the "% meeting guideline" column is the percentage of samples meeting the statistical threshold value). The "Range" column gives the range of single sample results.

⁶ Either *E. coli* or *Enterococcus* are acceptable indicators for EPA or MassDEP to assess suitability for swimming in freshwater.

4.4 *Water quality results, 2025*

This section reports spatial trends for water quality parameters measured in the Mystic River/Alewife Brook in 2025.

4.4.1 Physical measurements

Temperature. Summer (June to October) mean temperatures for 2025 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. Station 174 is too shallow for accurate summer temperature readings. The other stations within Alewife Brook are also shallow and therefore only surface readings are taken. All stations in this region met water quality standards for temperature in 2025.

Dissolved Oxygen. Summer dissolved oxygen (DO) is shown in the center graph of Figure 4-2. Median and average dissolved oxygen concentrations met the State standard of ≥ 5.0 mg/L in surface and bottom waters at most locations in the Mystic and Malden Rivers. Alewife Brook median and average DO concentrations were below the State standard at all stations in 2025. Similar to temperature, station 174 is too shallow for accurate DO readings.

Water clarity. Water clarity is indicated by Secchi disk depth. Summer Secchi readings are shown for each sampling location in the bottom graph of Figure 4-2. Water clarity for all but the Mystic River mouth is generally low, with all stations upstream of the Dam (excluding station 056) below the MADPH beach guideline of 1.2 meters. Alewife Brook and several of the Upper Mystic locations are often clear to the bottom and therefore too shallow to measure Secchi depth. River depth at those locations are typically 0.5 meters in Alewife Brook, and 1 meter in the Mystic River.

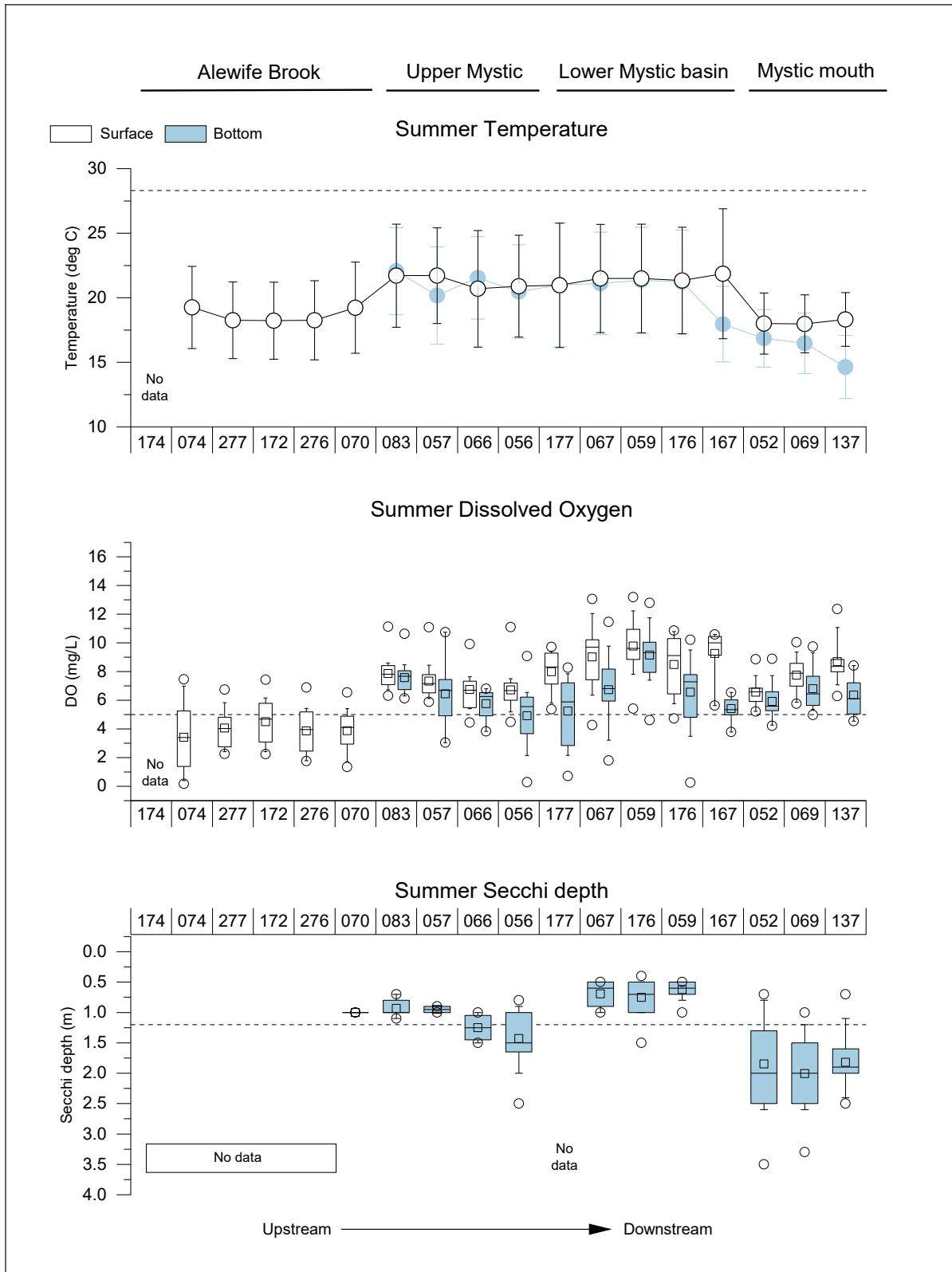


Figure 4-2. Summer (June-October) temperature, dissolved oxygen and Secchi depth, Mystic River and Alewife Brook, 2025.

Dashed lines are State standards or guideline (maximum for temperature, minima for DO and Secchi). Secchi plot has reversed y-axis to visualize depth below the water surface.

4.4.2 Nutrients, TSS and chlorophyll

Figures 4-3 through 4-7 show 2025 monthly means for total nitrogen, ammonium, nitrate/nitrite, total phosphorus, phosphate, total suspended solids, and chlorophyll *a* at the following stations: Upper Mystic locations (083 upstream of Alewife Brook and 066 at Boston Ave.); Lower Mystic basin (177 downstream of Route 16 bridge and 167 at Amelia Earhart Dam); and Mystic mouth (marine station 137). The 2025 means are plotted against the previous ten years for stations 083, 066, 167 and 137; and against the previous six years for station 177, since sampling for nutrients was added there in 2019.

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

At freshwater Mystic River stations 083, 066, and 167, nutrient results in 2025 were similar to the historical average) with some exceptions. At stations 083 and 066, nitrate/nitrite remained lower than the historical range for most of the year. Total nitrogen and total phosphorous were slightly higher during the summer compared to historical results. Seasonal signals are more evident in nitrogenous compounds than in total phosphorus or phosphate. During January and February of 2025, station 167 was frozen and inaccessible for sampling. This is the sixth year of monitoring nutrients at Station 177, with 2025 results mostly following similar patterns to previous years, except for low total nitrogen results in late summer/early fall. Chlorophyll *a* peaks varied through the stations, with 066 peaking March, 083 in May, 167 and 177 in July, and 166 in September. Like in the Charles, upstream stations tend to exhibit spring peaks, while stations closer to the dam exhibit late summer or fall peaks.

At marine station 137 in the Mystic mouth, nutrient results generally aligned with the seasonal pattern of the previous years. Total nitrogen, ammonium, and nitrate/nitrite observations were higher than average in late winter and early spring. Monthly chlorophyll *a* concentrations peaked in early summer. There were no reported cyanobacteria blooms in the Mystic River or Alewife Brook in 2025.

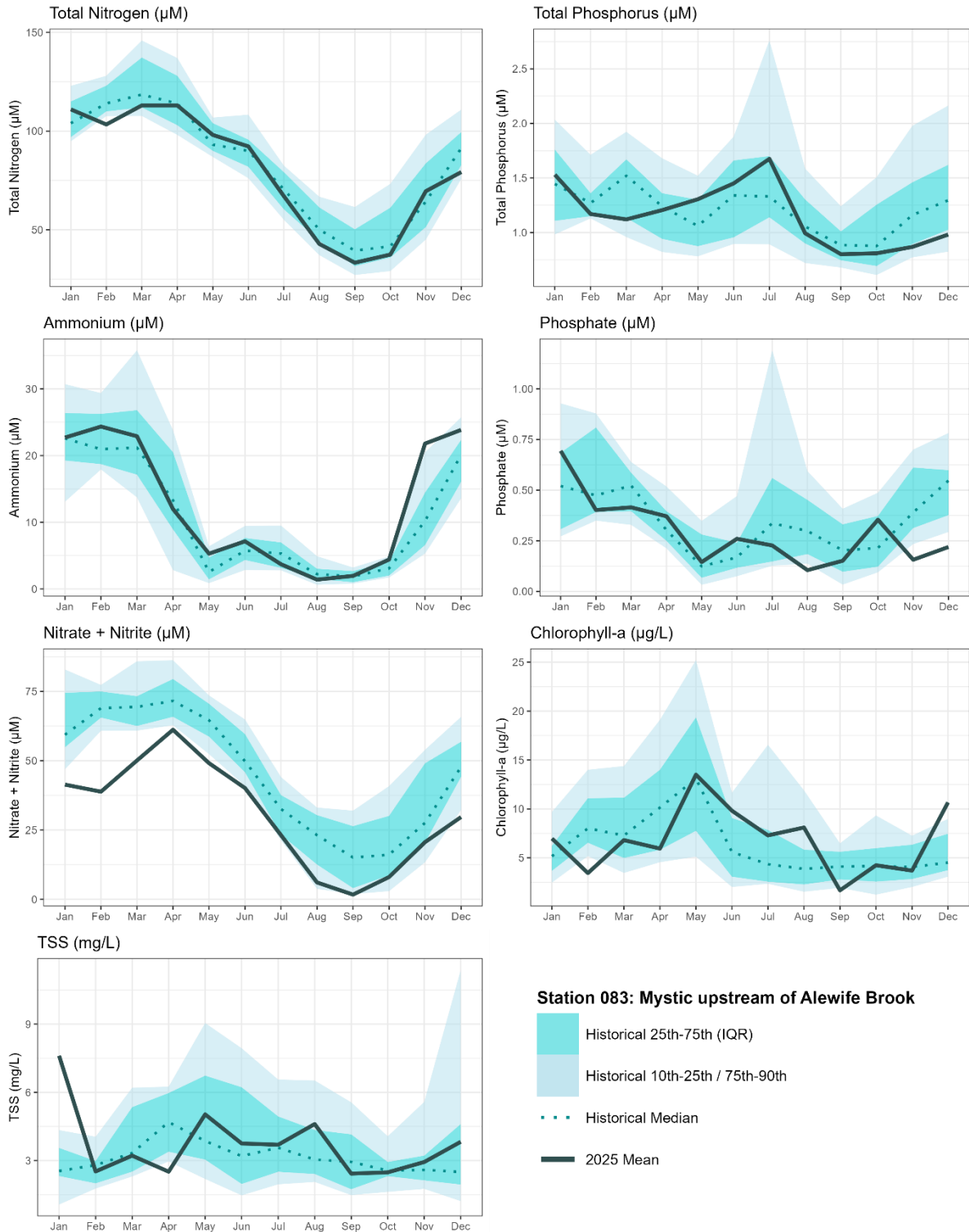


Figure 4-3. Monthly average nutrients, TSS and Chlorophyll, 2015 – 2024 and 2025, Station 083, Mystic upstream of Alewife Brook.

Note different scales than for Figures 4-4, 4-5, 4-6 and 4-7 for most parameters.

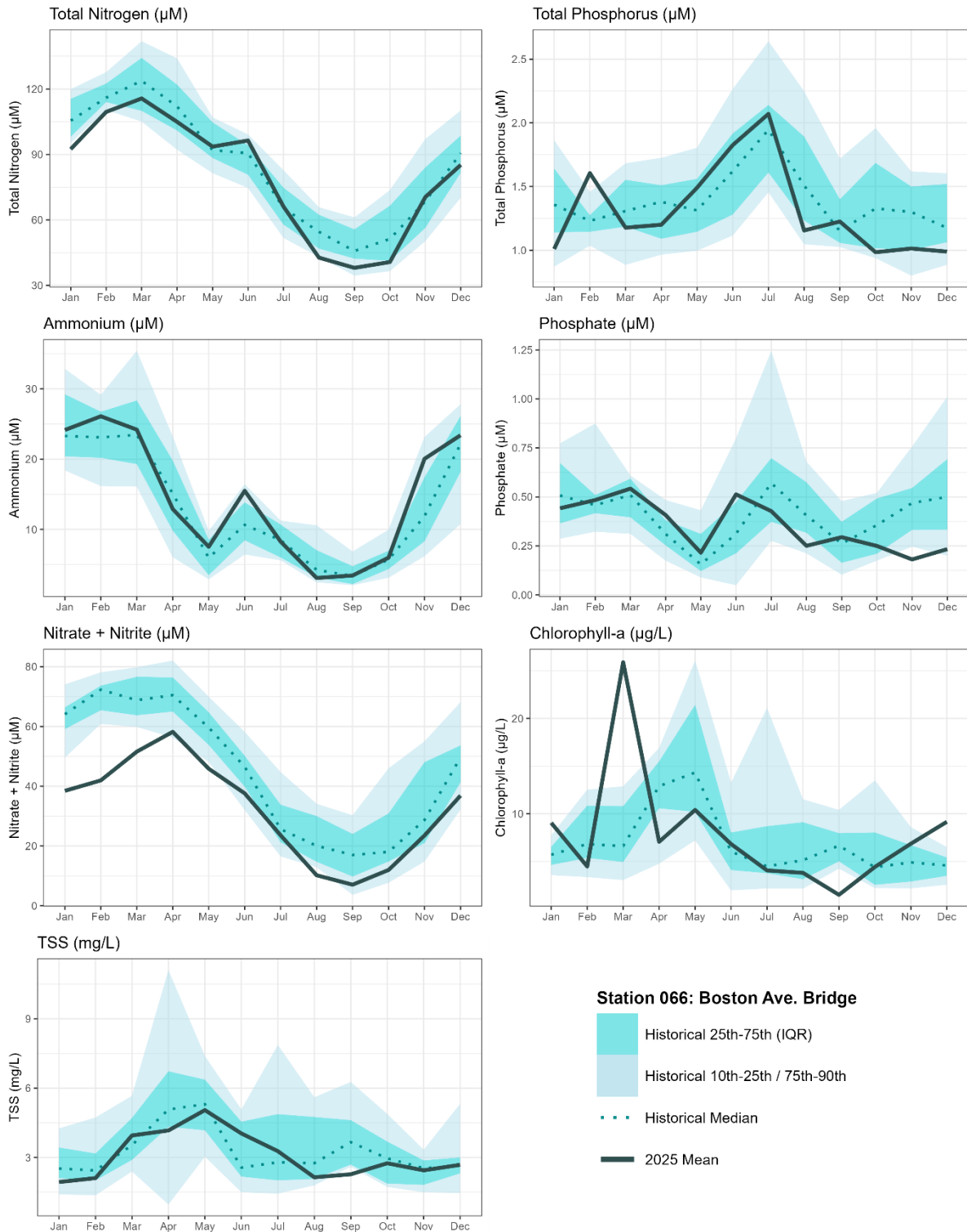


Figure 4-4. Monthly average nutrients, TSS and Chlorophyll, 2015 – 2024 and 2025, Station 066, Boston Ave.

Note different scales than for Figures 4-3, 4-5, 4-6 and 4-7 for most parameters.

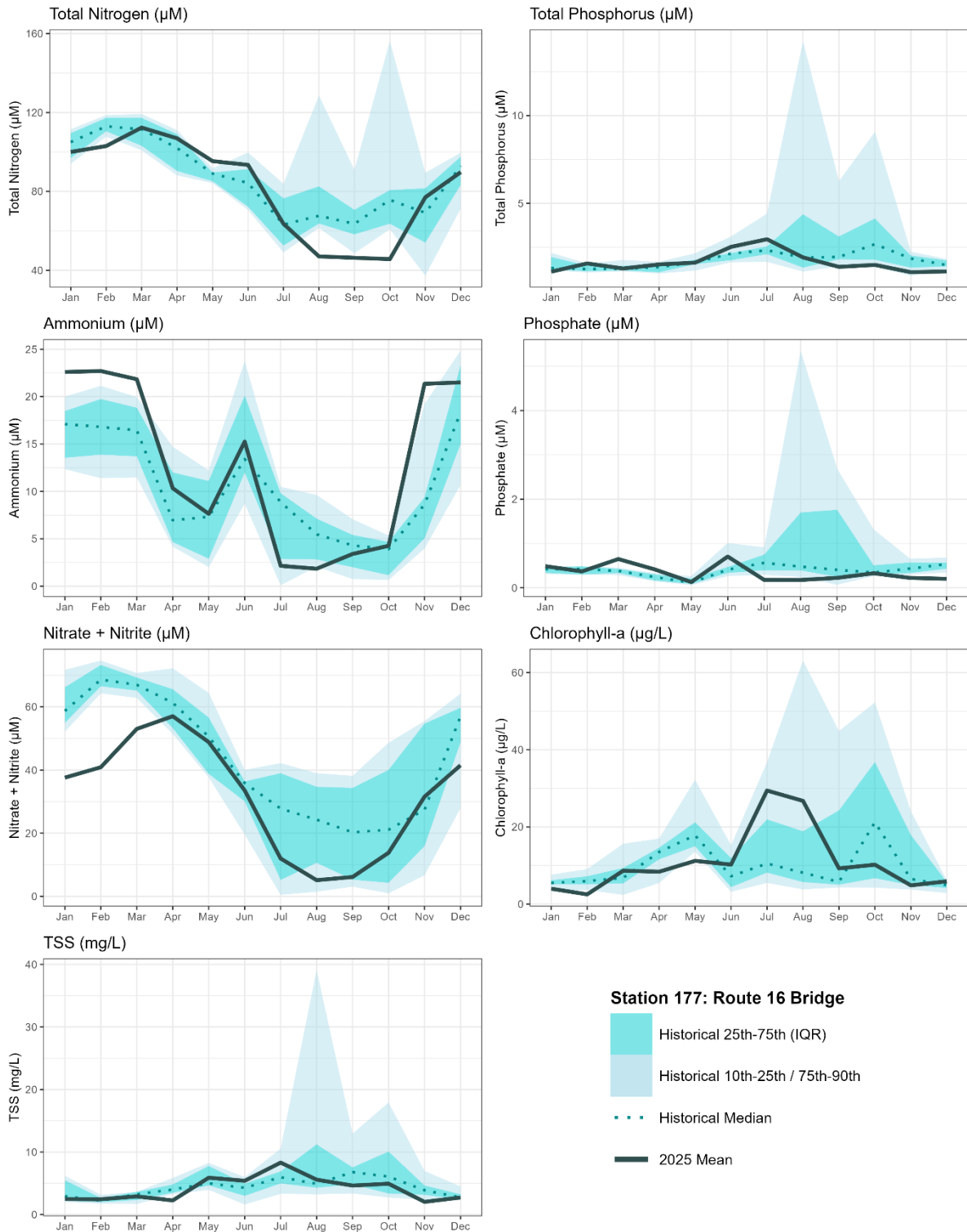


Figure 4-5. Monthly average nutrients, TSS and Chlorophyll 2019 – 2024 and 2025, Station 177, Route 16 Bridge.

Note different scales than Figures 4-3, 4-4, 4-6 and 4-7 for most parameters.

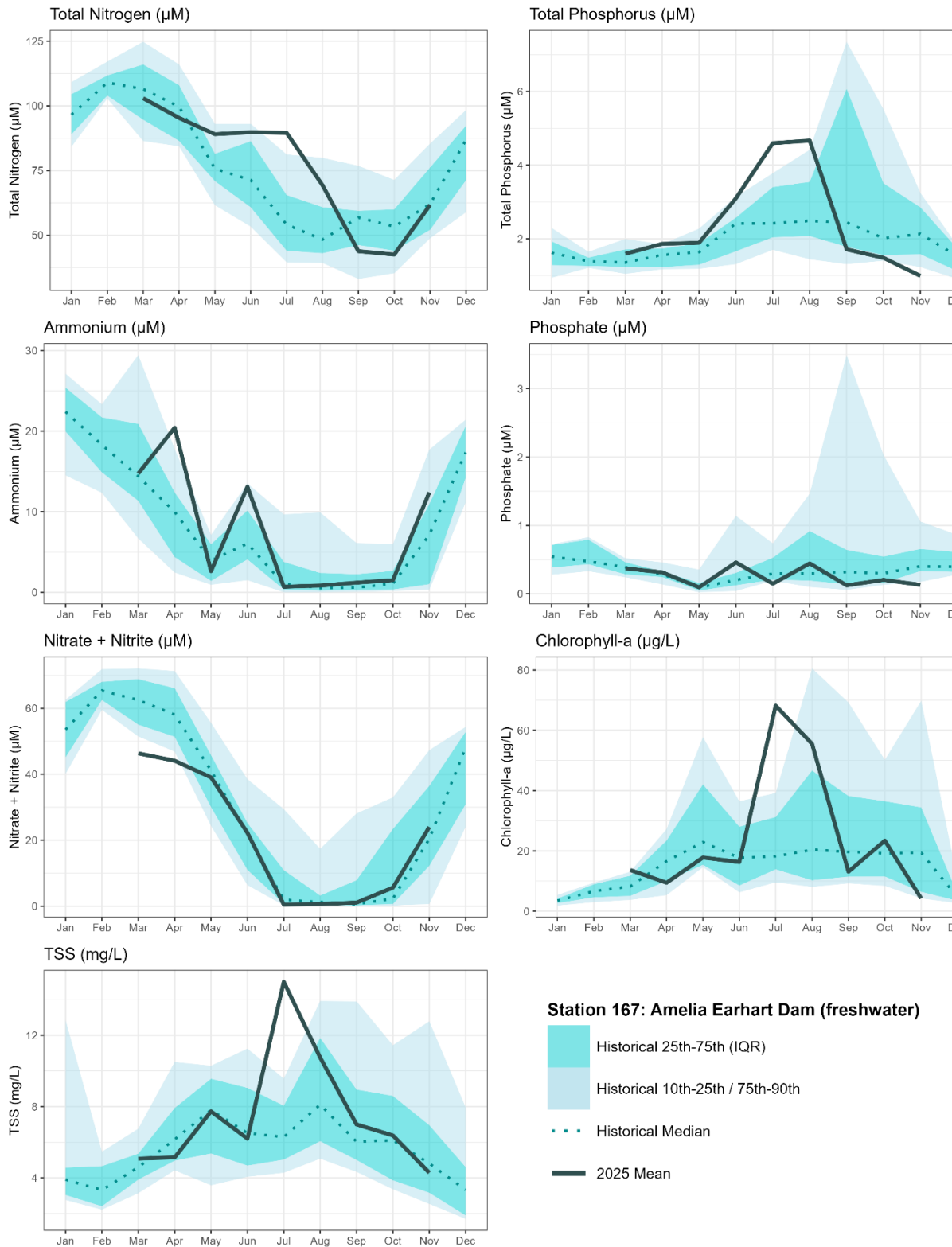


Figure 4-6. Monthly average nutrients, TSS and Chlorophyll 2015 – 2024 and 2025, Station 167, Amelia Earhart Dam (upstream/freshwater).

Note different scales than Figures 4-3, 4-4, 4-5 and 4-7 for most parameters.

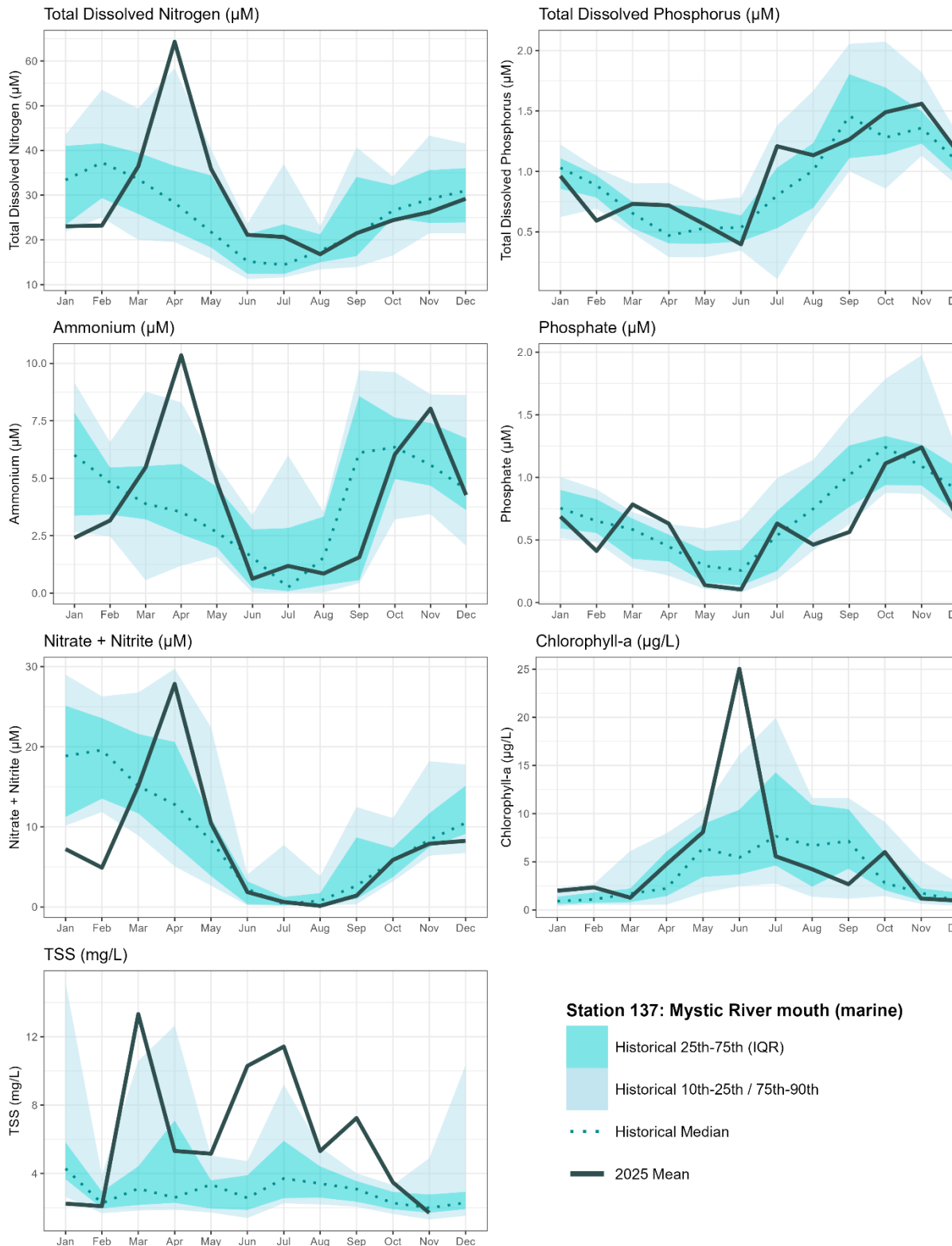


Figure 4-7. Monthly average nutrients, TSS and Chlorophyll 2015 – 2024 and 2025, Station 137, Mystic River mouth (marine).

Note different scales than Figures 4-3, 4-4, 4-5 and 4-6 for most parameters.

4.4.3 Bacterial water quality

Figure 4-8 shows the bacterial water quality at each location sampled in the Mystic River and Alewife Brook for 2025 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 three gauges in use are the BWSC East Boston gauge, the USGS Fresh Pond gauge, and the MWRA gauge at the Somerville Marginal CSO Treatment Facility. The uppermost graph in the figure shows percentile plots of *Enterococcus* counts for each location, arranged from upstream to downstream for 2025. The center graph shows percentile plots of *E. coli*, which is monitored in the freshwater portion of the Mystic River, and fecal coliform in the bottom graph, which is monitored in the marine portion of the Mystic River in place of *E. coli*.

As shown in Figure 4-8, in 2025, in Alewife Brook, the geometric means (approximated by the median line in the box) exceeded *E. coli* and *Enterococcus* geometric mean standards during all weather conditions. There was little difference in bacteria concentrations between station 083 upstream of Alewife Brook and station 057 at the Mystic/Alewife confluence. Dry and damp weather Upper Mystic bacteria concentrations were predominately below the statistical threshold value (STV). At most stations in the Lower Mystic Basin and Mystic mouth, bacterial geometric means were below both standards in dry and damp conditions. Stations at the broadest and deepest areas of the Lower Mystic Basin and Mystic mouth had the lowest geometric means compared to all other Mystic River stations across all weather conditions. Station 052 exceeded standards in all conditions, particularly in dry weather conditions. MWRA has verified that there are no issues with the nearby MWR205 CSO facility that could be associated with those exceedances. A suspected illicit connection to a nearby stormwater outfall is under investigation. Those exceedances are also apparent in Table 4-7 and Figure 4-9.

Geometric means for each indicator for 2020 - 2024 and 2025 appear in Table 4-6 (Alewife Brook) and 4-7 (Mystic River), for all weather conditions combined. If the 95% confidence intervals for the two periods overlap, this generally indicates no statistically significant difference between the two geometric means. As shown in Table 4-4, nearly half the samples collected in this region in 2025 were during dry weather, with the rest split almost evenly among damp and wet conditions, reflecting the drier year. Geometric means did not meet *Enterococcus* or *E. coli* water quality standards in Alewife Brook in 2025, or in the previous five years. In the Mystic River, Upper Mystic stations (083, 057, 066, 056) exceeded the *Enterococcus* geometric mean standard, though 083 and 057 did meet the *E. coli* standard. Station 177 met the *Enterococcus* standard after exceeding it last year, though still exceeded the *E. coli* standard in 2025.

As in past years, downstream stations 067, 059, 069, and 137 all met their respective bacterial standards as well as having the lowest geometric means in the river. Like the Charles River, *E. coli* count ranges and geometric means are consistently higher than those for *Enterococcus* at all stations. This difference has been observed throughout this monitoring program and is expected due to their differing reactions to environmental stressors such as salinity or sunlight.

The spatial and temporal change in *Enterococcus* concentrations in Alewife Brook and the Mystic River appear in Figure 4-9 through Figure 4-11. Figure 4-9 shows the impact of rainfall on *Enterococcus*

counts on the four river reaches in 2025, along with selected locations near CSO outfalls. In the Alewife, the Little River station 174 upstream of CSOs exceeds standards in all weather, suggesting persistent contamination resulting from sources other than CSO. Results in the Upper Mystic were higher than the geometric mean standard in wet weather conditions. Lower Mystic Basin and Mystic Mouth results were often below the statistical threshold value in all weather conditions, with some exceedances during heavy rain events. High bacteria counts at station 052 were noticeable in 2025 and evident in the lower panel of Figure 4-9. A possible explanation for these high counts was discussed above.

Results in Figures 4-10 (Alewife Brook) and 4-11 (Lower Mystic Basin and Upper Mystic) are grouped by phases of the Long Term CSO Plan improvements and include the geometric mean counts in each rainfall condition. Figure 4-10 shows minimal changes in dry or damp *Enterococcus* counts in the Alewife, but the magnitude of exceedances decreased in wet weather, particularly in the 2016-2025 period following completion of all LTCP-related construction in this region. *Enterococcus* results in Figure 4-11 show improvement over time in the Mystic River since the early 1990s, particularly in dry and damp conditions. In the ten years of data collected following LTCP project completion, results are similarly distributed to the previous LTCP phase.

2025 Mystic River compliance rates with statistical threshold values (STV) for both indicators are mapped in Figures 4-12 (*Enterococcus*) and 4-13 (*E. coli*). Dots on the figure are the monitoring locations shown in Figure 4-1 and listed in Table 4-1. Compliance rates vary highly year-to-year and between indicators. Mystic River compliance rates in wet weather for both indicators highlighted low compliance rates at stations 056 and 177, the area of transition between the upper and lower reaches of the river.

2025 Alewife Brook compliance rates with statistical threshold values (STV) for both indicators are shown in Figures 4-14 (*Enterococcus*) and 4-15 (*E. coli*). The dots shown on the maps correspond to the monitoring locations shown in Figure 4-1 and listed on Table 4-1. Like the Charles, compliance rates differ between the two indicators. For the Alewife stations, all stations were <40% compliant in wet weather conditions for *Enterococcus* and *E. coli*. For *Enterococcus*, several stations had higher compliance rates in damp weather than in dry. The most upstream station in the Little River (174) demonstrated low compliance rates across most weather conditions except for damp *Enterococcus* observations.

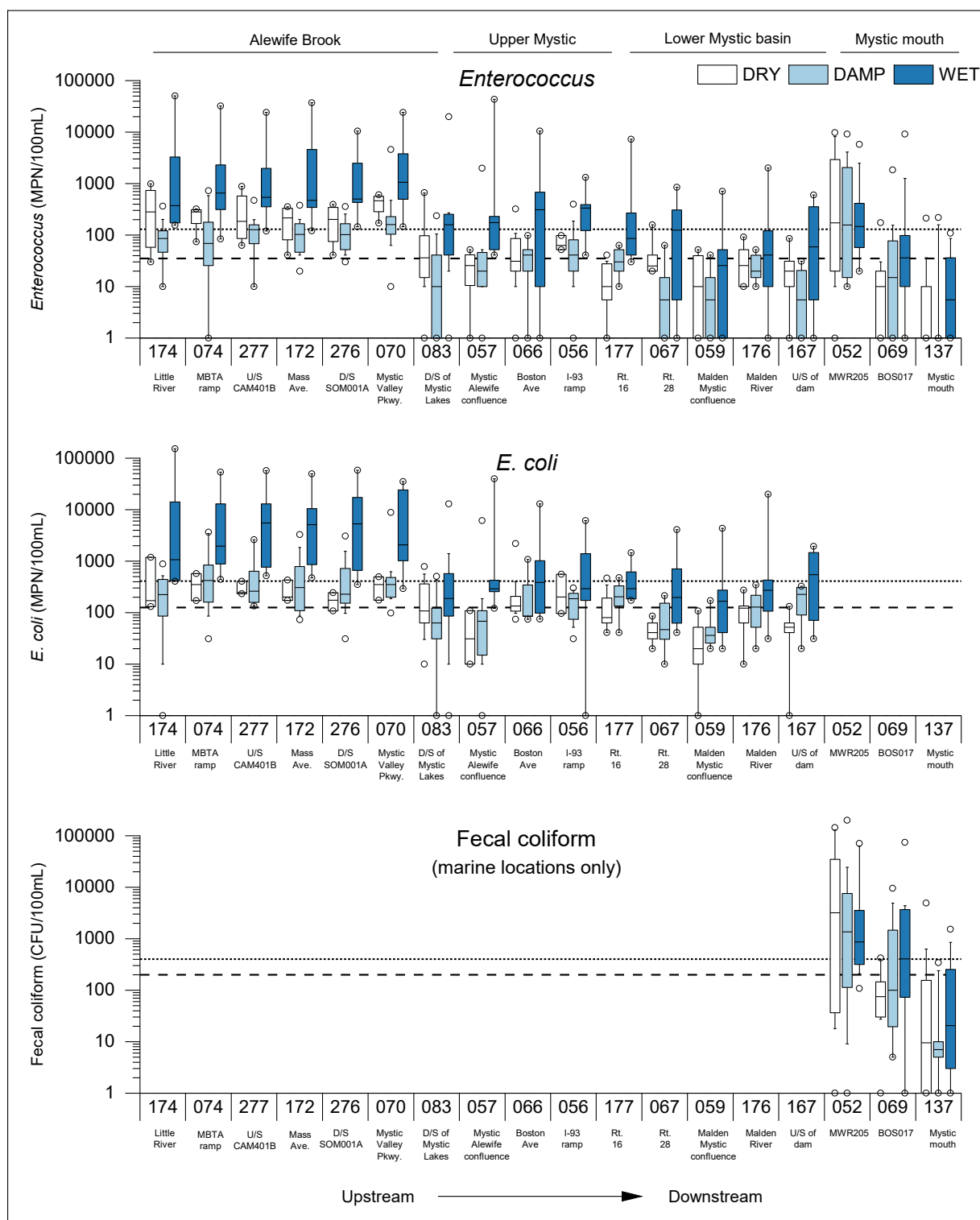


Figure 4-8. Indicator bacteria concentrations, Mystic River/Alewife Brook, 2025.

Dashed lines show MassDEP *Enterococcus* and *E. coli* and the former fecal coliform geometric mean standards. Dotted lines show the statistical threshold values for *Enterococcus* and *E. coli*, and the former single sample standard for fecal coliform. See Section 2.1.5 for descriptions of rainfall conditions.

“D/S”: downstream; “U/S”: upstream

Table 4-6. Geometric mean indicator bacteria, Alewife Brook, 2020 – 2024 and 2025.

Geometric means over the limits are in **bold**.

Station	Location	Surface or Bottom	Number of samples		<i>Enterococcus</i> (95% CI) counts/100 mL DEP limit: 35 counts/100 mL		<i>E. coli</i> (95% CI) counts/100 mL DEP limit: 126 counts/100 mL	
			2020–2024	2025	2020–2024	2025	2020 – 2024	2025
174	Cambridge, Little River, upstream of Rt. 2 and off ramp to Alewife T station	S	117	22	192 (141-261)	168 (77-365)	489 (382-627)	343 (126-933)
074	Cambridge, Alewife Brook, at off ramp to Alewife T station	S	118	22	162 (120-217)	143 (55-368)	609 (488-760)	662 (310-1414)
277	Arlington, Alewife Brook, upstream of 4 CSO outfalls near Mass. Ave bridge.	S	118	22	185 (134-255)	197 (99-390)	640 (512-801)	704 (345-1437)
172	Arlington, Alewife Brook, upstream of Massachusetts Ave bridge, midchannel	S	118	22	167 (125-223)	198 (99-395)	574 (460-715)	637 (302-1339)
276	Arlington, Alewife Brook, downstream of SOM001A	S	118	22	179 (133-241)	190 (106-340)	540 (431-676)	568 (255-1266)
070	Arlington, Alewife Brook, off Mystic Valley Parkway bridge	S	118	22	278 (212-363)	354 (179-696)	741 (599-918)	688 (347-1364)

Table 4-7. Geometric mean indicator bacteria, Mystic River, 2020 – 2024 and 2025.

Geometric means over the limits are in **bold**.

Station	Location	Surface or Bottom	Number of samples		<i>Enterococcus</i> (95% CI) counts/100 mL DEP limit: 35 counts/100 mL		<i>E. coli</i> ¹ (95% CI) counts/100 mL DEP limit: 126 counts/100 mL	
			2020 – 2024	2025	2020 – 2024	2025	2020 – 2024	2025
083	Medford, upstream of confluence of Mystic River and Alewife Brook	S	242	46	39 (30-52)	31 (17-57)	105 (85-129)	87 (51-148)
057	Medford, confluence of Mystic River and Alewife Brook	S	118	22	40 (28-57)	43 (16-111)	107 (78-146)	100 (38-261)
066	Medford, Mystic River, Boston Ave bridge	S	125	27	58 (43-79)	41 (19-89)	170 (139-208)	222 (139-354)
056	Medford, Mystic River, upstream of I-93 bridge	S	117	20	47 (33-66)	62 (31-123)	268 (219-328)	163 (78-338)
177	Medford, Downstream of Rt. 16 bridge, mid-channel	S	128	24	43 (30-62)	23 (11-49)	257 (209-316)	160 (110-233)
067	Medford, Mystic River, Rt. 28 bridge	S	117	22	10 (6-14)	17 (6-43)	115 (82-162)	90 (50-163)
059	Everett, confluence of Mystic and Malden Rivers	S	99	21	6 (4-10)	7 (3-17)	102 (73-142)	48 (23-98)
176	Malden River, upstream of Rt. 16 bridge	S	117	21	21 (14-32)	29 (15-54)	190 (139-262)	143 (73-280)
167	Medford, Mystic River, upstream side of Amelia Earhart Dam	S	139	17	17 (11-25)	13 (5-34)	91 (67-123)	81 (36-179)
052 ²	Somerville, Mystic River, near Somerville Marginal CSO facility (MWR205) – marine	S	100	21	15 (9-25)	397 (143-1097)	<i>127 (77-209)</i>	<i>2317 (597-8986)</i>
		B	48	14	7 (3-12)	51 (21-121)	<i>23 (14-37)</i>	<i>338 (82-1380)</i>
069 ²	Charlestown, near Schrafft's Center at BOS-017 outfall - marine	S	100	21	9 (5-14)	31 (9-104)	<i>67 (41-110)</i>	<i>451 (157-1293)</i>
		B	57	16	1 (1-3)	5 (2-13)	<i>6 (4-11)</i>	<i>34 (12-91)</i>
137 ²	Mystic River, upstream of Tobin Bridge – marine/Inner Harbor	S	113	21	4 (2-6)	7 (2-19)	<i>22 (14-32)</i>	<i>79 (29-212)</i>
		B	112	21	1 (1-1)	0 (0-1)	<i>2 (1-3)</i>	<i>4 (1-9)</i>

¹Results in italics are fecal coliform, not *E. coli*. Former MassDEP fecal coliform geomean standard is 200 counts/100mL.

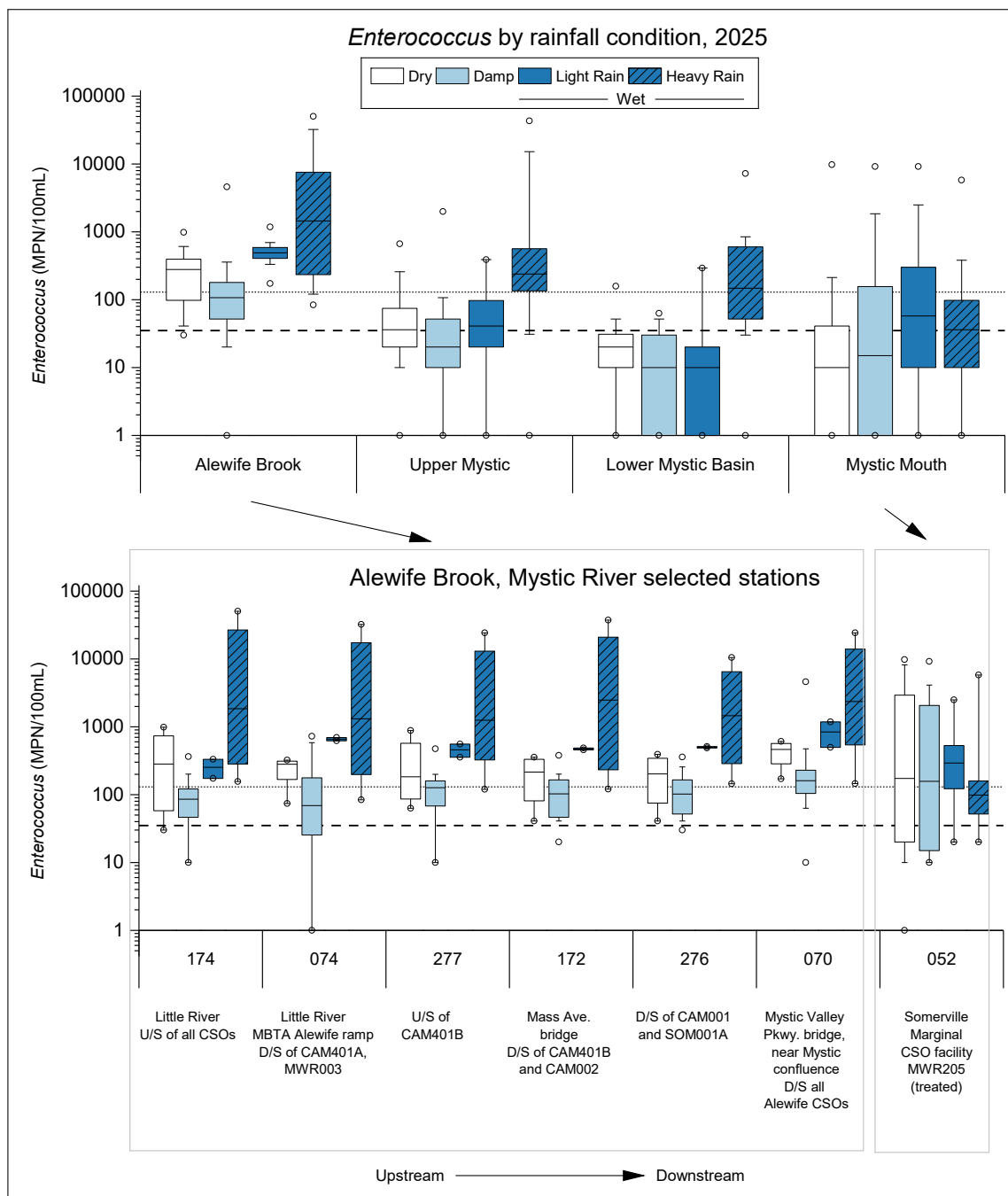


Figure 4-9. Enterococcus by rainfall condition, Mystic River/Alewife Brook, 2025.

Dashed lines show MassDEP state geometric mean standards (35 MPN/100mL for freshwater and marine). Dotted lines show statistical threshold value (130 MPN/100mL for freshwater and marine). Rainfall is from the BWSC Charlestown or USGS Fresh Pond gauge. See Section 2.1.5 for descriptions of rainfall conditions. “D/S”: downstream; “U/S”: upstream.

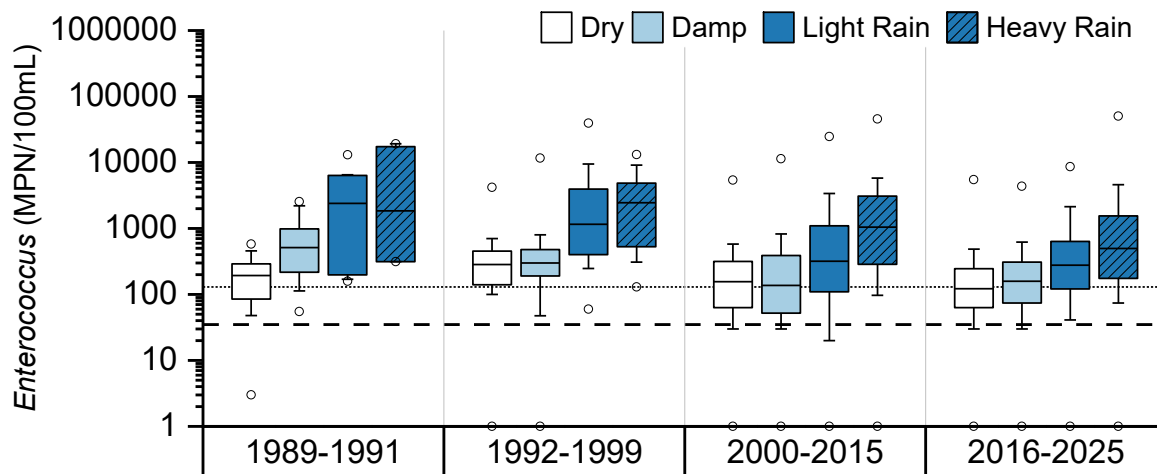


Figure 4-10. *Enterococcus* over time, Alewife Brook by phase of CSO LTCP and rainfall condition.

Dashed line shows State geometric mean standard (35 MPN/100mL), dotted line shows statistical threshold value (130 MPN/100mL). Data includes results for stations 174, 074, 277, 172, 276 and 070. Rainfall is NOAA rainfall from Logan airport. See Section 2.1.5 for descriptions of rainfall conditions.

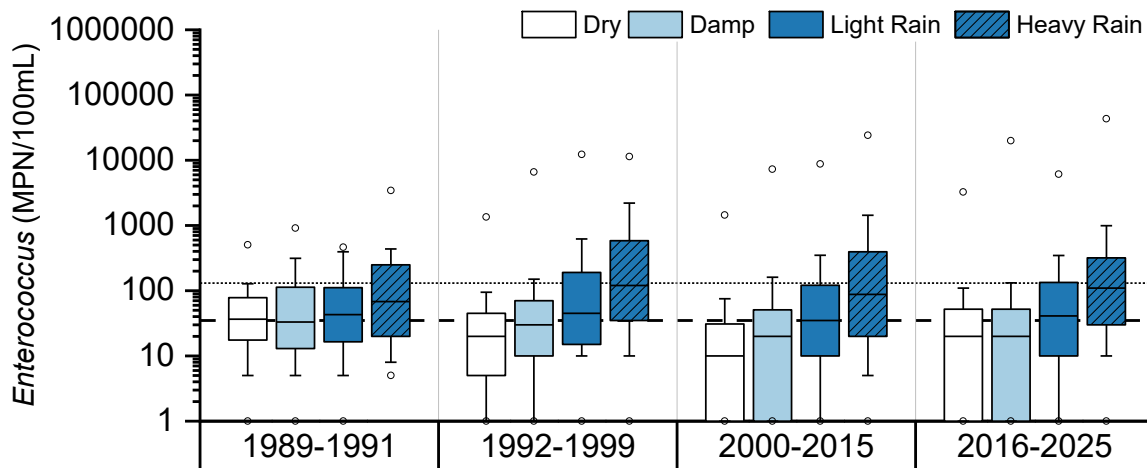


Figure 4-11. *Enterococcus* over time, Mystic River by phase of CSO LTCP and rainfall condition.

Dashed line shows State geometric mean standard (35 MPN/100mL), dotted line shows statistical threshold value (130 MPN/100mL). Data includes results for all Mystic River stations in Table 4-1 except in Alewife Brook. Rainfall is NOAA rainfall from Logan airport. See Section 2.1.5 for descriptions of rainfall conditions.

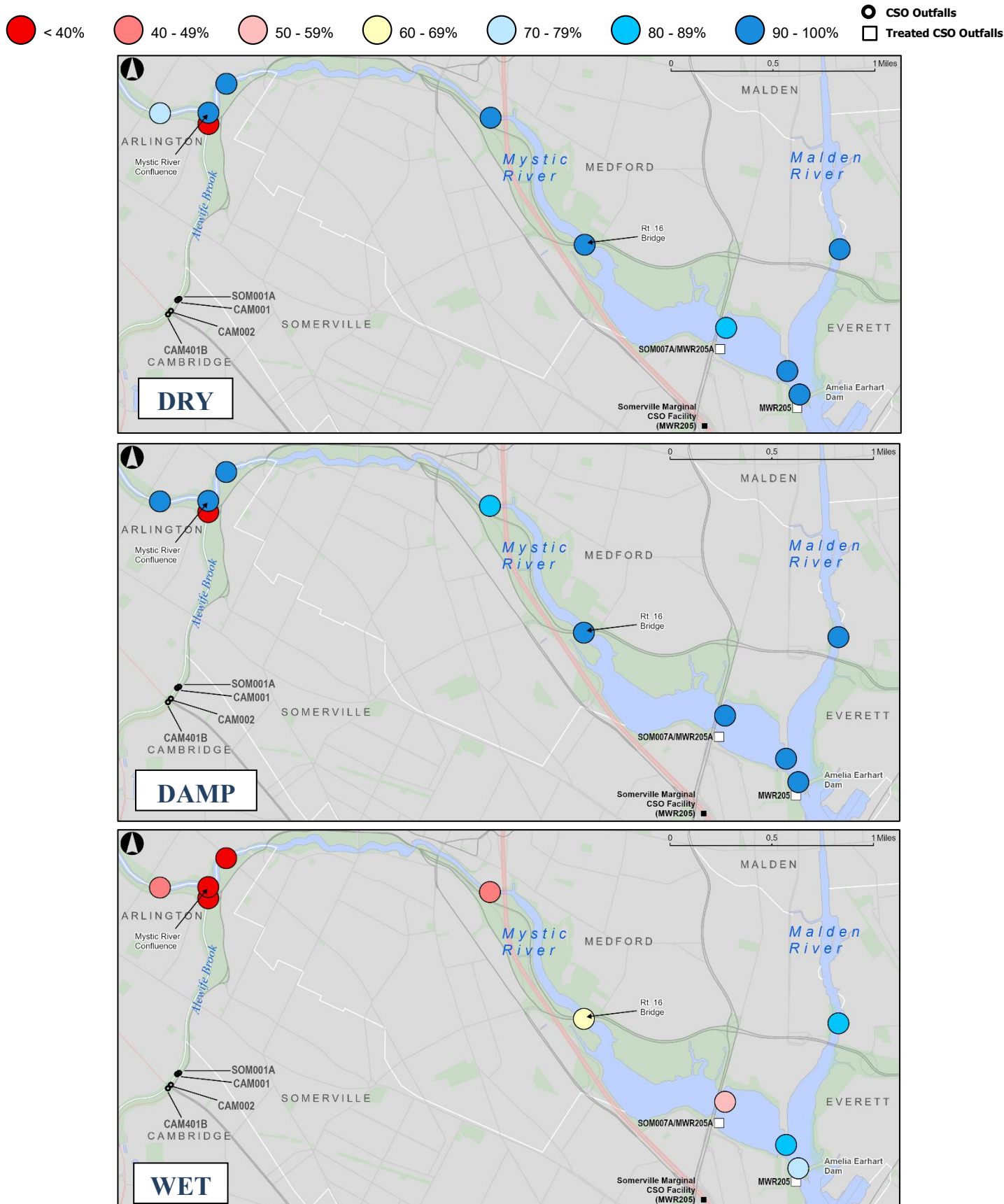


Figure 4-12. Mystic River *Enterococcus* percent compliance by weather condition, 2025.
Compliance with 130 MPN/100mL statistical threshold value. Rainfall is from nearest rain gauge to station. See Section 2.1.5 for descriptions of rainfall conditions. Alewife Brook station 070 near Mystic River confluence included for reference.

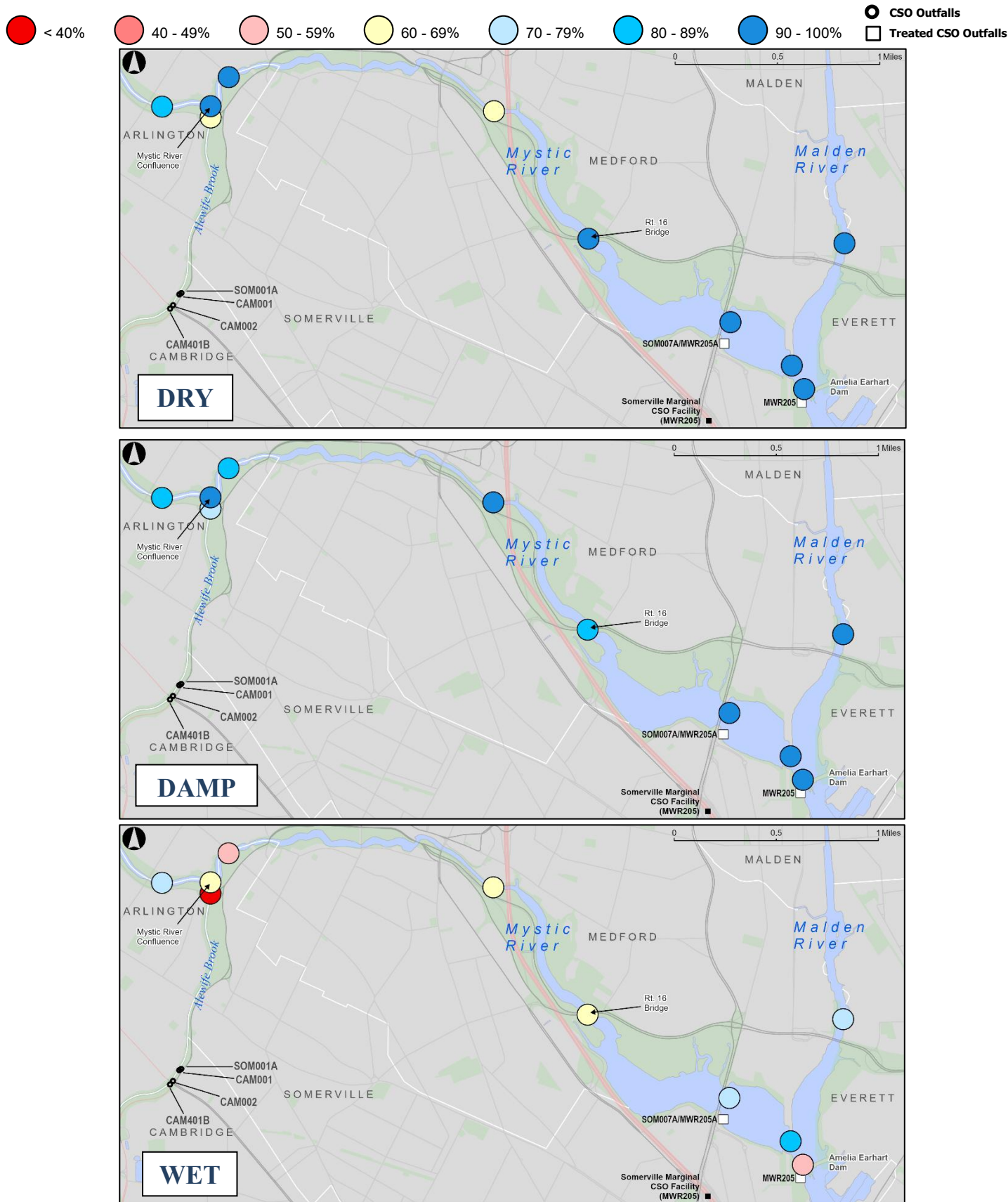


Figure 4-13. Mystic River *E. coli* percent compliance by weather condition, 2025. Compliance with 410 MPN/100mL statistical threshold value. Rainfall is from nearest rain gauge to station. Section 2.1.5 for descriptions of rainfall conditions. Alewife Brook station 070 near Mystic River confluence included for reference.

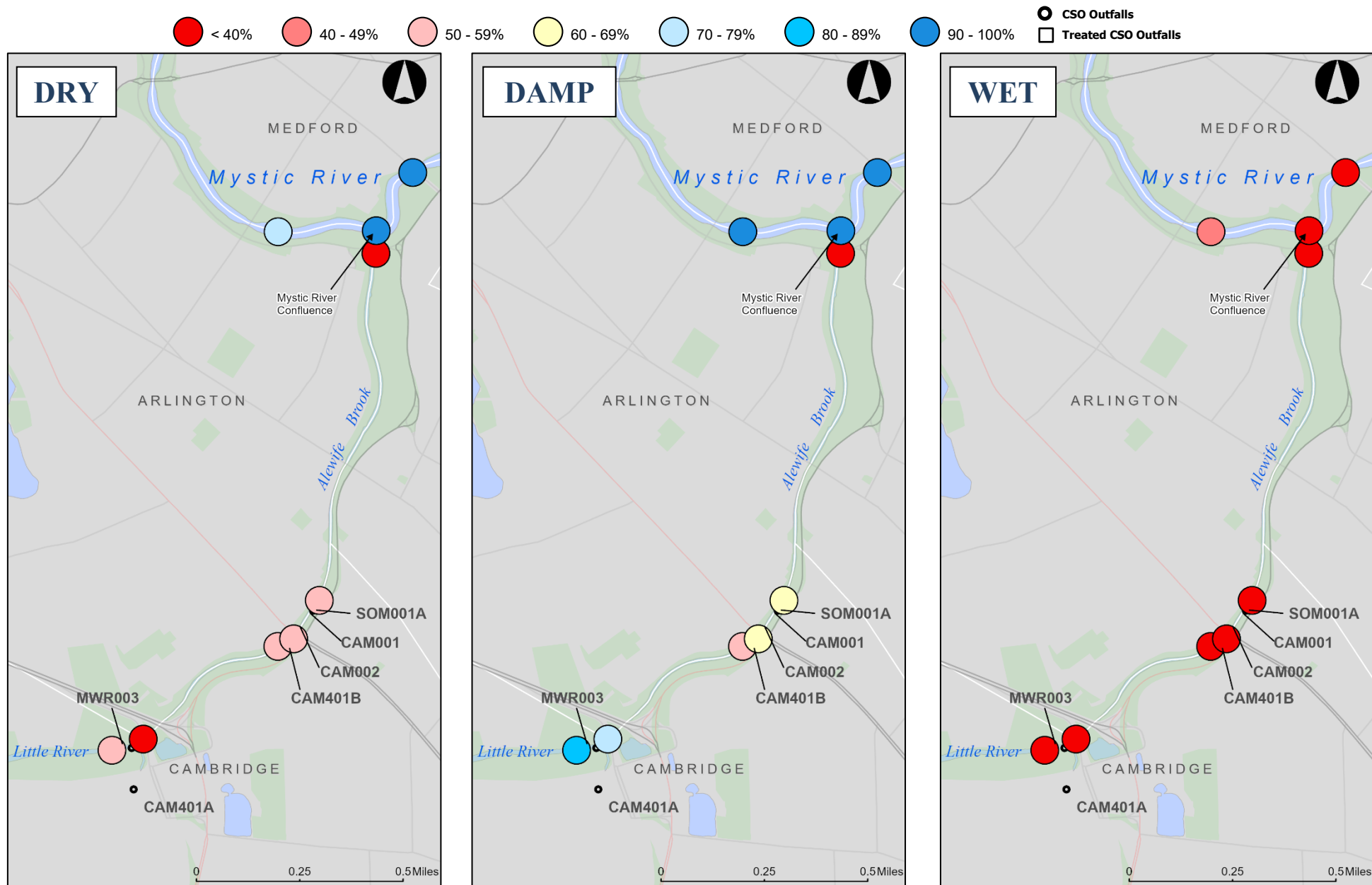


Figure 4-14. Alewife Brook *Enterococcus* percent compliance by weather condition, 2025.

Compliance with 130 MPN/100mL statistical threshold value. Rainfall is from nearest rain gauge to station. Section 2.1.5 for descriptions of rainfall conditions. Mystic River stations 083, 057, and 066 included for reference.

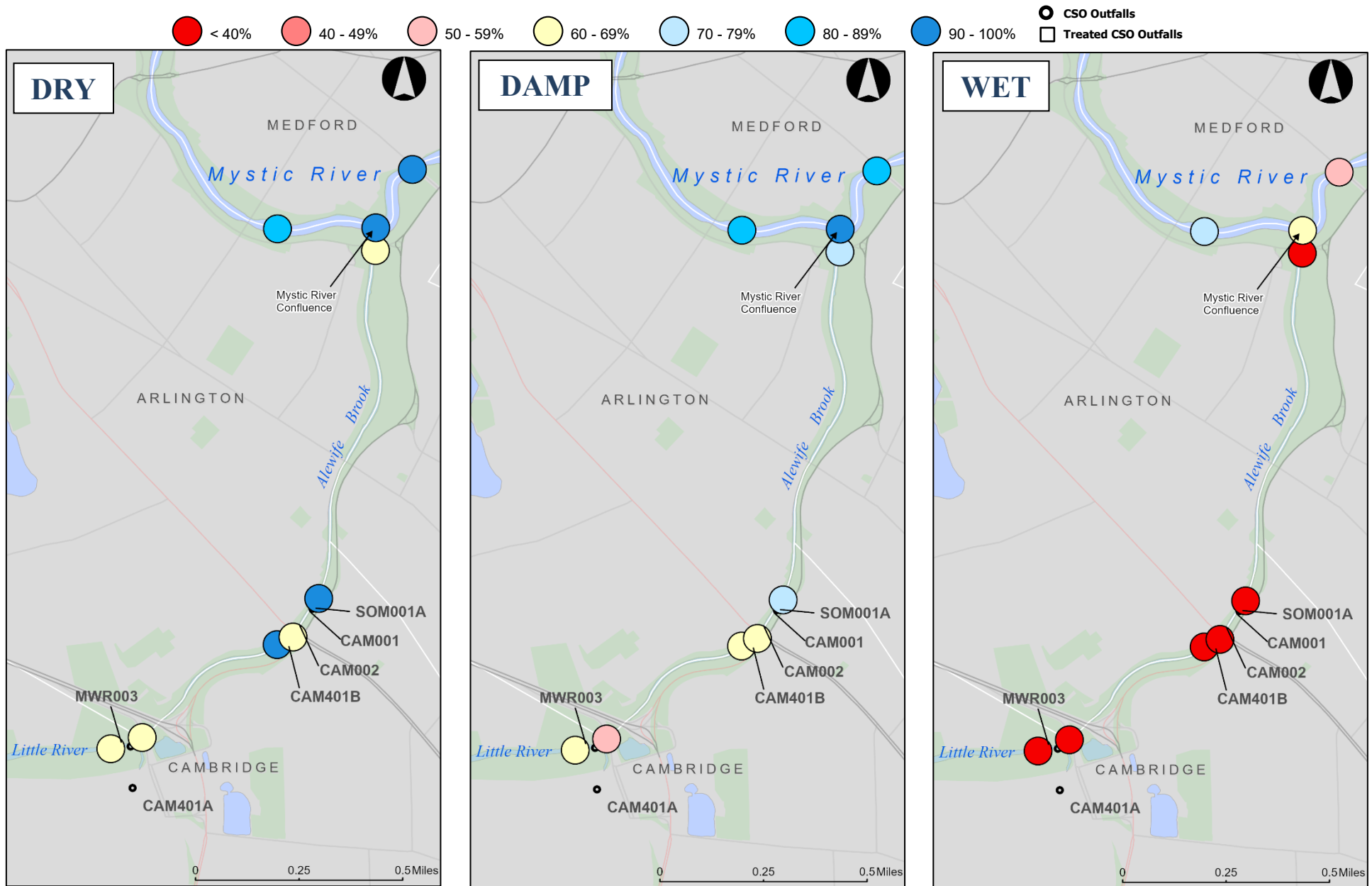


Figure 4-15. Alewife Brook *E. coli* percent compliance by weather condition, 2025.

Compliance with 410 MPN/100mL statistical threshold value. Rainfall is from nearest rain gauge to station. Section 2.1.5 for descriptions of rainfall conditions. Mystic River stations 083, 057, and 066 included for reference.

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

Bacterial, physical, and nutrient trends followed historic patterns in the Mystic River and Alewife Brook during the 2025 monitoring program. Bacteria concentrations in the Mystic River met standards for much of the upper and lower Mystic Basin in dry and damp weather but did not meet standards in wet weather conditions. Bacteria concentrations in Alewife Brook exceeded standards in most weather conditions both upstream and downstream of CSOs. Most locations in the Mystic River met *Enterococcus* and *E. coli* geometric mean limits in dry and damp conditions. Bacterial geometric means were higher and generally above the state standard in the Upper Mystic as compared to points downstream.

Physical parameters in 2025 generally met state standards/guidelines. All Alewife Brook, Mystic and Malden River stations were below the state temperature maximum. Mean surface DO conditions met standards at all Mystic and Malden River stations. Some Mystic and Malden River bottom water DO concentrations were below the state standard during summer months. Clarity results were generally low or visible to the bottom at shallow locations.

Nutrient levels in 2025 were similar to previous years, with monthly concentrations near long-term averages for most parameters. Chlorophyll α values showed similar seasonal patterns for most stations, with station 066 showing an earlier peak in March.

5 Storm Size and Bacterial Count Analysis

From 2017 to 2020, MWRA instituted a comprehensive storm sampling program building on the routine monitoring program which has been in place since 1989. These additions supported the calibration of receiving water models for both the Charles and Mystic/Alewife regions described in Chapter 1 and submitted to EPA and MassDEP in December 2021. The two primary enhancements were 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 by boat. A given region was typically sampled for five consecutive days following a rain event, unless an additional storm in that period shifted focus to another region. 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.

While maintaining sampling programs in Boston Harbor, Massachusetts Bay, and the Neponset River, MWRA sampled 33 storms in the Mystic/Alewife and Charles regions from 2018 to 2020. These storms span a wide array of rainfall patterns and CSO events. The storm counts in 2018 and 2019 were slightly above the 1992 Typical Year, facilitating a large sample size of bacteria results used in receiving water model calibration. Results presented below include samples collected from 2018 through 2025, summarizing bacteria results after storms from the past seven years.

5.1 2018-2025 bacteria counts by time period and storm size

Figures 5-1 through 5-8 present boxplots of bacteria counts for both *E. coli* and *Enterococcus* in the Charles and Mystic/Alewife regions following varied storm events. Results are binned first by the total rainfall of the most recent storm at a station’s nearest rain gauge, and then by the hours after the start of that storm after which the sample was collected. This allows a comparison of the magnitude and duration of wet weather impacts by region, bacterial indicator, and storm size. The bins for total rainfall are dictated by those in the 1992 Typical Year (Table 1-1), and hours after storm are in 12-hour increments up to 3 days, then by 24-hours to 5 days and beyond. Lines are drawn between the median lines of each box to emphasize the pattern of wet weather impact and recovery. Note that these are percentile plots as explained by Figure 2-1, but as the number of samples is smaller, the percentile “whiskers” have been omitted. Due to the high counts in Alewife Brook in all weather conditions, the vertical axis scales are higher for the Mystic/Alewife figures than for the Charles figures.

5.1.1 Charles River

For the Charles River, the results described above are further grouped by region. The following Figures 5-1 and 5-3 (top) contain results from stations upstream of any CSO outfalls, while the bottom Figures 5-2 and 5-4 include stations from the CAM005 CSO outfall to the Charles River Dam. These figures do not distinguish results between storms with CSO discharges and those without. Approximately results are included in the upstream figures, and results in the downstream figures. Sample counts are highest in storms $<0.25''$ and lowest in storms $>2.0''$ due to the relative frequency of these events.

As seen in the top figures, locations upstream of CSOs show high bacteria counts from non-CSO sources in storms $>0.25''$. Locations downstream of CSOs in the Lower Charles showed minimal contamination in storms below $0.5''$. Both indicator bacteria display a similar pattern relative to their respective standards. Peak concentrations tended to occur within 24 hours after the onset of rain, when stormwater and potential CSO impacts would be at their greatest. The magnitude of impact was higher in the region upstream of all CSOs, but the duration of impact appears shorter at these locations, as flows quickly move to the wider parts of the Lower Basin. As expected, the duration of impact increased with storm size, with results typically returning to baseline around 72 hours, even in the largest storms.

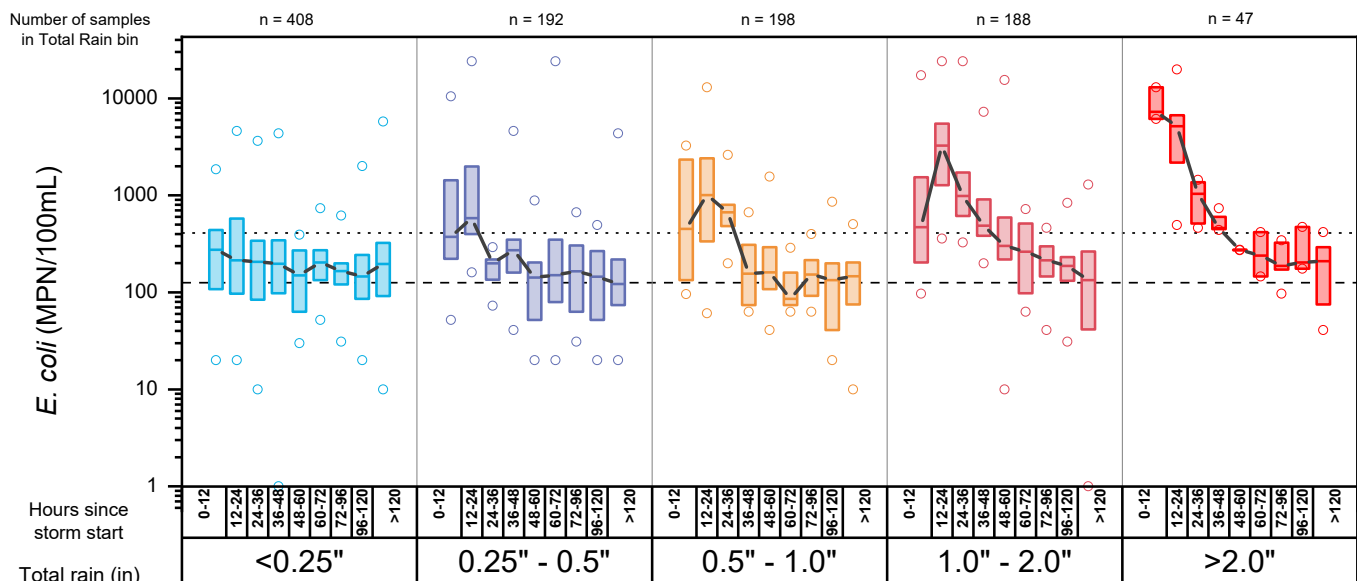


Figure 5-1. 2018-2025 *E. coli* counts at Charles River stations upstream of all CSOs by storm size and hours after start of rain.

Dashed line shows MassDEP freshwater geometric mean standard of 126 MPN/100mL for *E. coli*; dotted line shows the statistical threshold value of 410 MPN/100mL. Total rain is rainfall from nearest MWRA, BWSC or USGS rain gauge to a given location. Total rain is binned to follow 1992 Typical Year rainfall categories. Hours since storm start is taken from the onset of rain to the time of sample collection. All four stations upstream of the CAM005 CSO outfall are included (012, 001, 144, 002).

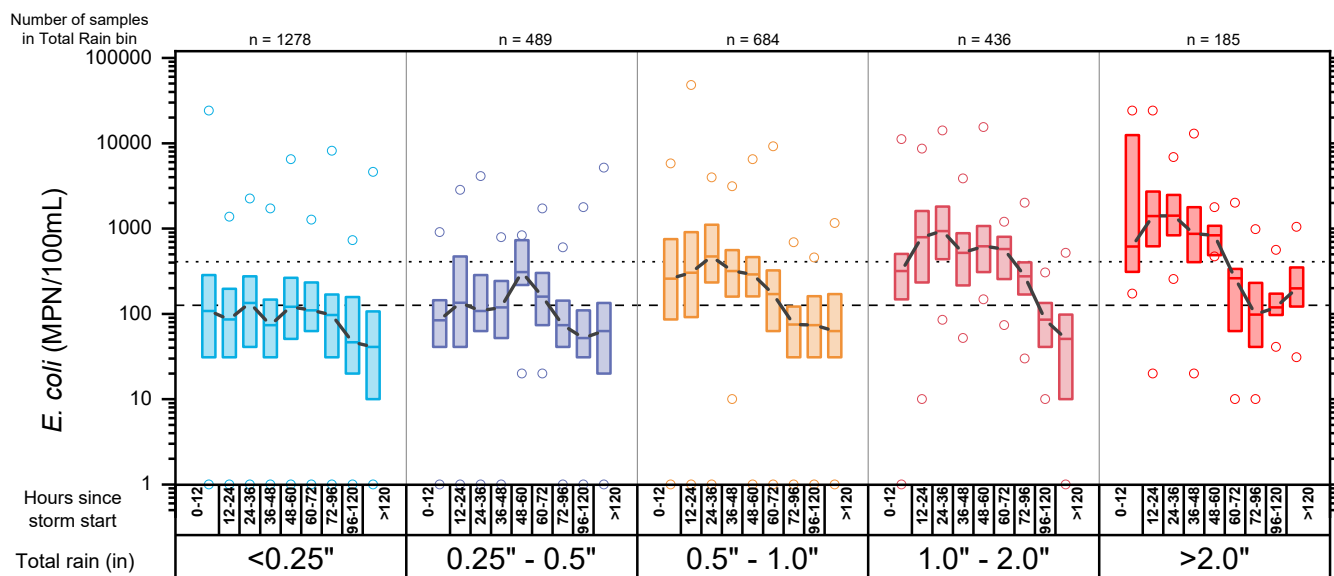


Figure 5-2. 2018-2025 *E. coli* counts at Charles River stations in reaches downstream of CSOs by storm size and hours after start of rain.

Dashed line shows MassDEP freshwater geometric mean standard of 126 MPN/100mL for *E. coli*; dotted line shows the statistical threshold value of 410 MPN/100mL. Total rain is rainfall from nearest MWRA, BWSC or USGS rain gauge to a given location. Total rain is binned to follow 1992 Typical Year rainfall categories. Hours since storm start is taken from the onset of rain to the time of sample collection. All 13 stations downstream of the CAM005 outfall are included. All storms are included, both with and without CSO discharges.

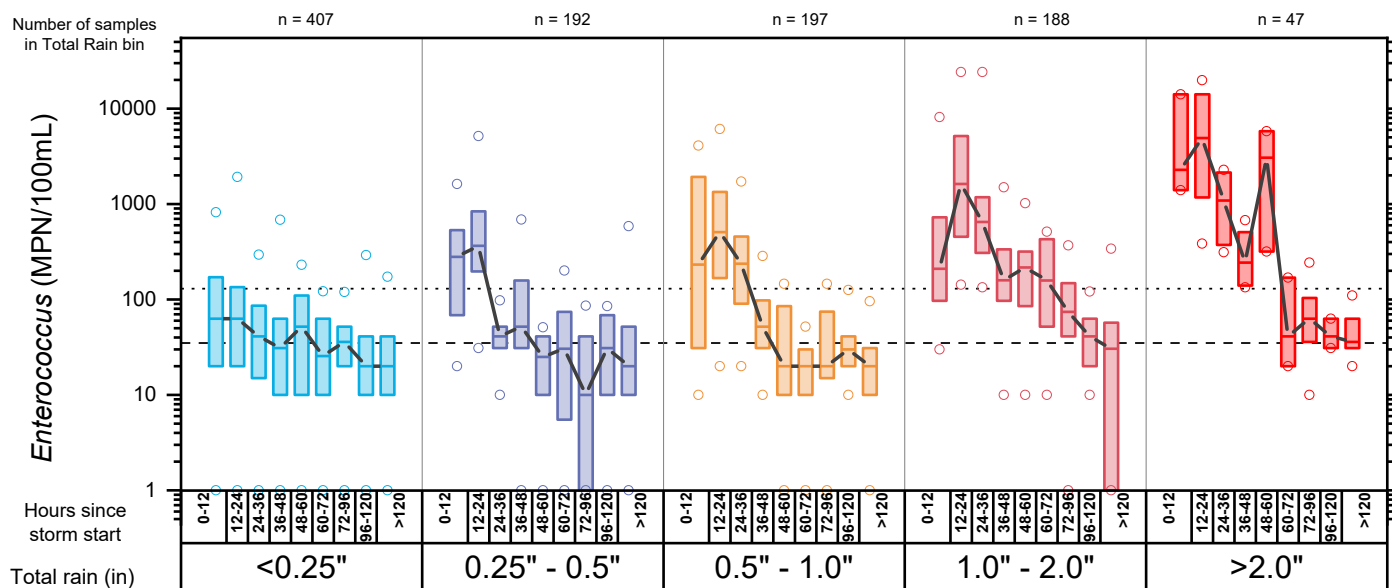


Figure 5-3. 2018-2025 *Enterococcus* counts at Charles River stations upstream of all CSOs by storm size and hours after start of rain.

Dashed line shows MassDEP freshwater geometric mean standard of 35 MPN/100mL for *Enterococcus*; dotted line shows the statistical threshold value of 130 MPN/100mL. Total rain is rainfall from nearest MWRA, BWSC or USGS rain gauge to a given location. Total rain is binned to follow 1992 Typical Year rainfall categories. Hours since storm start is taken from the onset of rain to the time of sample collection. All four stations upstream of CAM005 CSO outfall are included (012, 001, 144, 002).

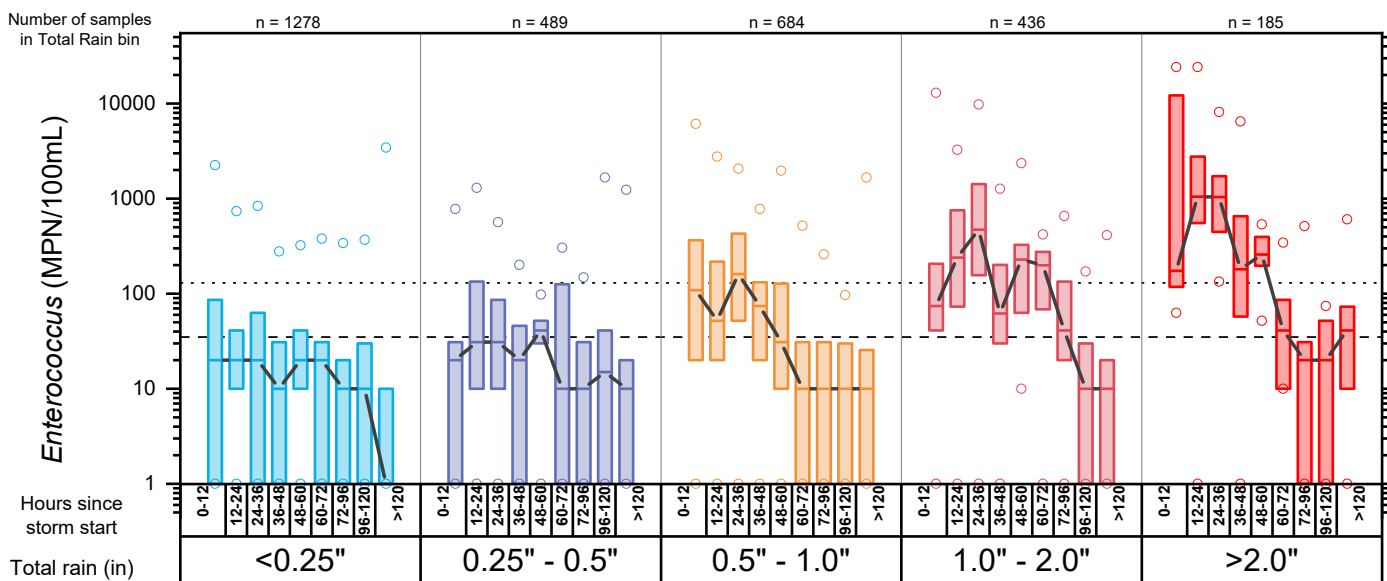


Figure 5-4. 2018-2025 *Enterococcus* counts at Charles River stations in reaches downstream of CSOs by storm size and hours after start of rain.

Dashed line shows MassDEP freshwater geometric mean standard of 35 MPN/100mL for *Enterococcus*; dotted line shows the statistical threshold value of 130 MPN/100mL. Total rain is rainfall from nearest MWRA, BWSC or USGS rain gauge to a given location. Total rain is binned to follow 1992 Typical Year rainfall categories. Hours since storm start is taken from the onset of rain to the time of sample collection. All 13 stations downstream of CAM005 CSO outfall are included. All storms are included, both with and without CSO discharges.

5.1.2 Mystic River & Alewife Brook

The following Figures 5-5 and 5-7 (top) contain results from all Alewife Brook stations, while the bottom Figures 5-6 and 5-8 include all freshwater Mystic River stations. Sample counts are highest in storms $<0.25''$ and lowest in storms $>2.0''$ due to the relative frequency of these events.

The recovery patterns of bacterial water quality impact are similar between the two indicator species. As discussed in Chapter 4, stations in Alewife Brook often exceed state standards in all weather conditions, so the wet weather impacts here should be evaluated by a return to baseline conditions approximated by the >120 -hour category. Alewife Brook exhibits a sharper increase and decrease in bacteria counts than the Mystic River, as flows increase dramatically in the shallow, narrow Alewife Brook during storms. The Mystic River only exhibited a sharp peak in water quality impact in storms over $1.0''$. As expected, the largest storms resulted in the greatest bacteria counts and duration of impact, with results still returning to baseline within 72 hours of the storm start.

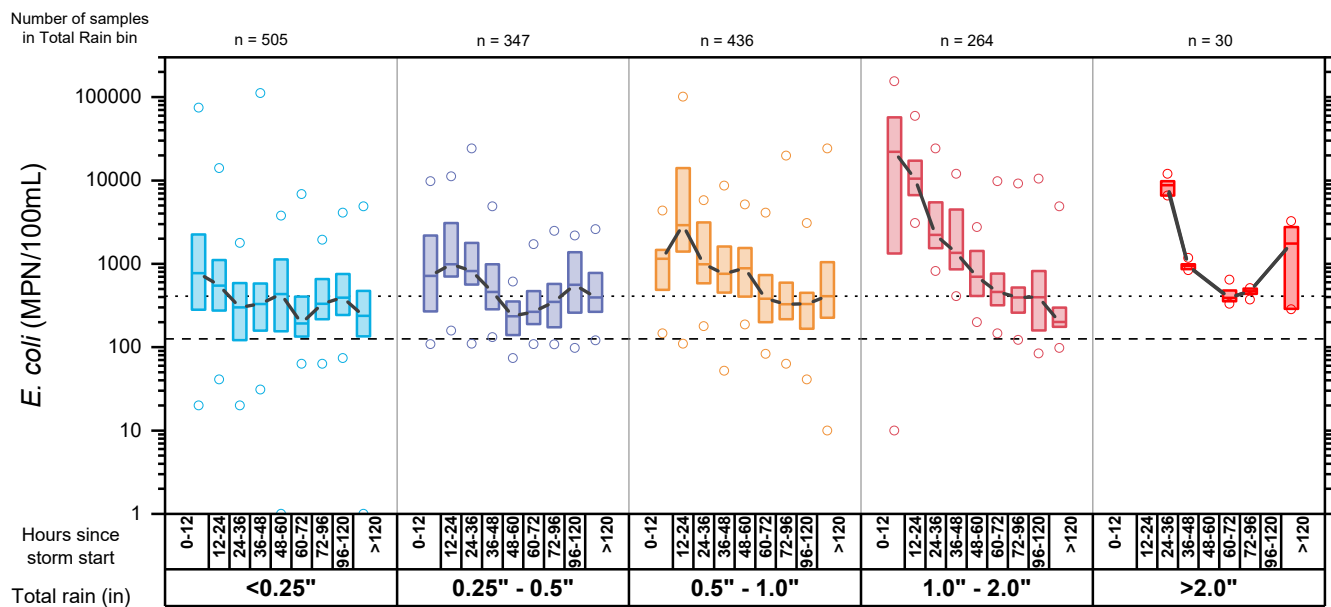


Figure 5-5. 2018-2025 *E. coli* counts in Alewife Brook by storm size and hours after start of rain.

Dashed line shows MassDEP freshwater geometric mean standard of 126 MPN/100mL for *E. coli*; dotted line shows the statistical threshold value of 410 MPN/100mL. Total rain is rainfall from nearest MWRA, BWSC or USGS rain gauge to a given location. Total rain is binned to follow 1992 Typical Year rainfall categories. Hours since storm start is taken from the onset of rain to the time of sample collection.

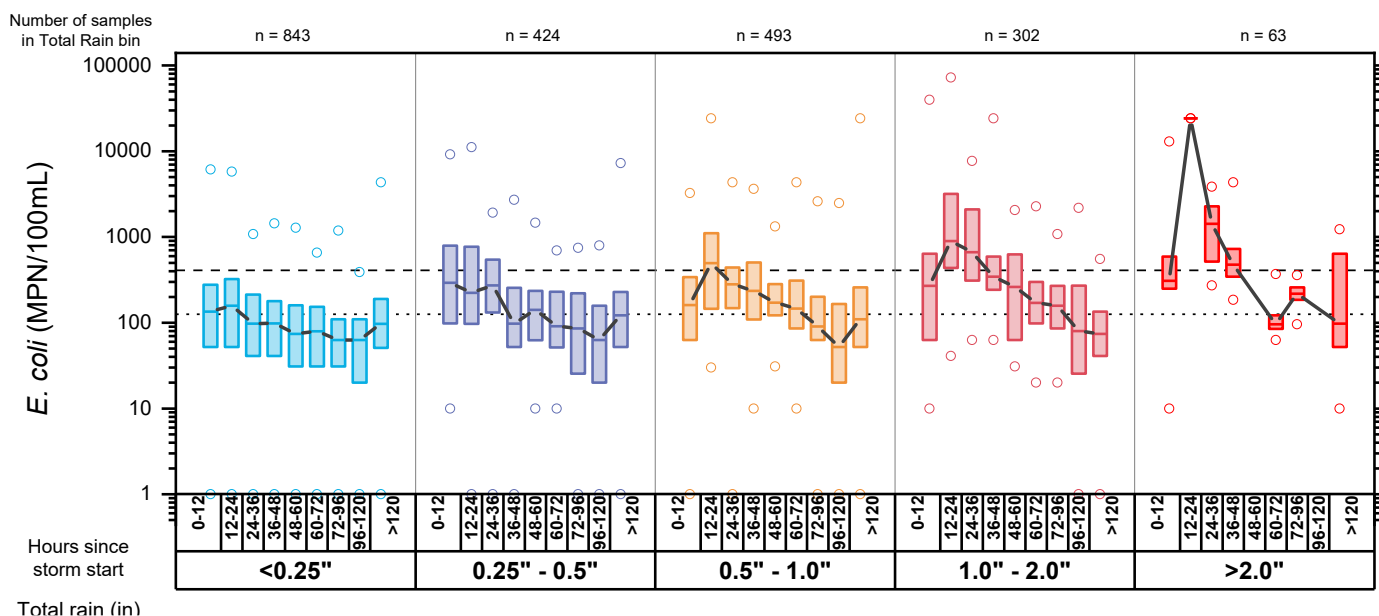


Figure 5-6. 2018-2025 *E. coli* counts in the Mystic River by storm size and hours after start of rain.

Dashed line shows MassDEP freshwater geometric mean standard of 126 MPN/100mL for *E. coli*; dotted line shows the statistical threshold value of 410 MPN/100mL. Total rain is rainfall from nearest MWRA, BWSC or USGS rain gauge to a given location. Total rain is binned to follow 1992 Typical Year rainfall categories. Hours since storm start is taken from the onset of rain to the time of sample collection. Alewife Brook and Malden River stations not included.

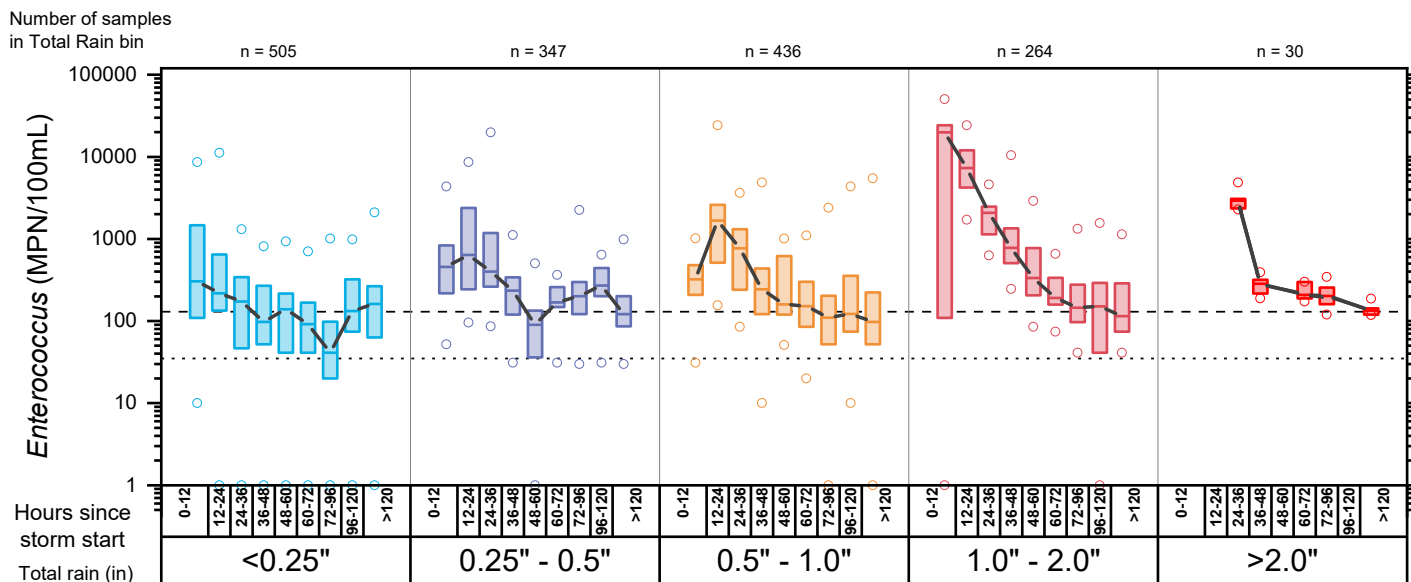


Figure 5-7. 2018-2025 *Enterococcus* counts in Alewife Brook by storm size and hours after start of rain.

Dashed line shows MassDEP freshwater geometric mean standard of 35 MPN/100mL for *Enterococcus*; dotted line shows the statistical threshold value of 130 MPN/100mL. Total rain is rainfall from nearest MWRA, BWSC or USGS rain gauge to a given location. Total rain is binned to follow 1992 Typical Year rainfall categories. Hours since storm start is taken from the onset of rain to the time of sample collection

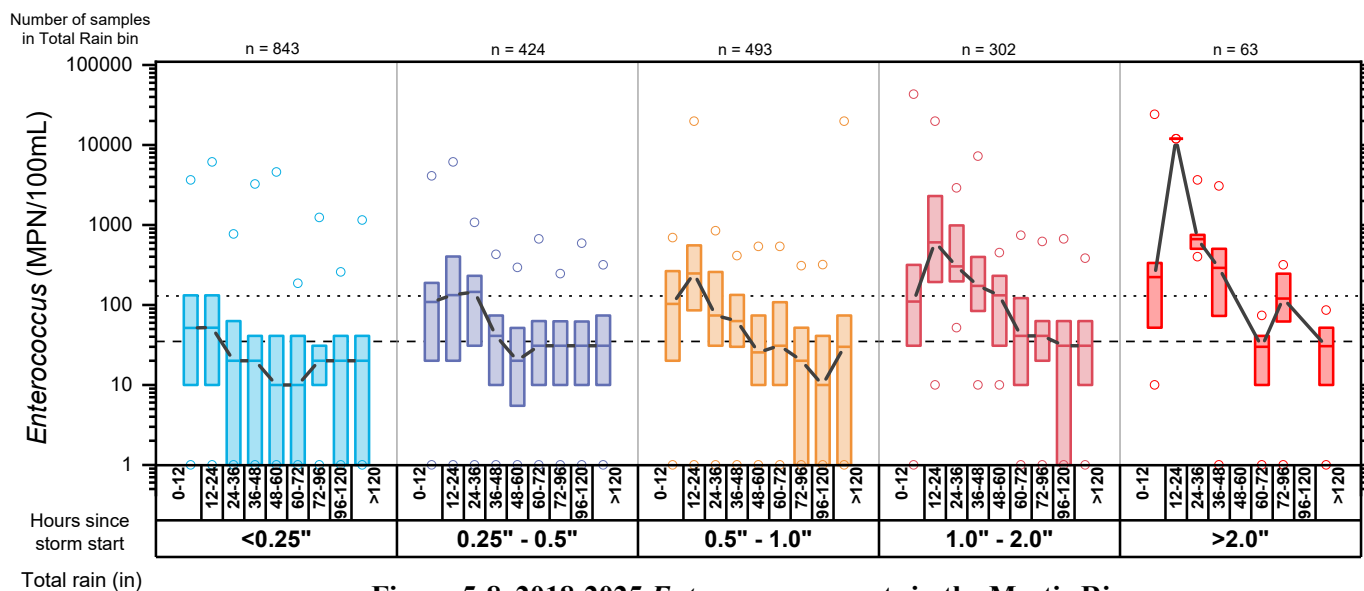


Figure 5-8. 2018-2025 *Enterococcus* counts in the Mystic River by storm size and hours after start of rain.

Dashed line shows MassDEP freshwater geometric mean standard of 35 MPN/100mL for *Enterococcus*; dotted line shows the statistical threshold value of 130 MPN/100mL. Total rain is rainfall from nearest MWRA, BWSC or USGS rain gauge to a given location. Total rain is binned to follow 1992 Typical Year rainfall categories. Hours since storm start is taken from the onset of rain to the time of sample collection. Alewife Brook and Malden River stations not included

6 References

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APPENDICES

Appendix I

Use of local rain gauge data for rainfall characterization

Appendix II

Charles River 2025 sample results collected within 72 hours of a CSO discharge

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Mystic River and Alewife Brook 2025 sample results collected within 72 hours of a CSO discharge

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Appendix I: 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 reports prior to 2016, these categories were 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, MassDEP 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 are below in Table I-1. These local rain gauges are maintained by MWRA, BWSC, and USGS (Figure I-1). These are the same gauges used by the MWRA’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 compared to 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 1989 to present.

Table I-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	277	USGS Fresh Pond
002	USGS Fresh Pond	172	USGS Fresh Pond
003	USGS Fresh Pond	276	USGS Fresh Pond
004	BWSC Allston	070	USGS Fresh Pond
005	BWSC Allston	083	USGS Fresh Pond
006	BWSC Allston	057	USGS Fresh Pond
007	MWRA Ward St.	066	USGS Fresh Pond
145	MWRA Ward St.	056	USGS Fresh Pond
008	MWRA Ward St.	177	USGS Fresh Pond
009	BWSC Charlestown	067	BWSC Charlestown
010	BWSC Charlestown	059	MWRA Somerville Marginal
210	BWSC Charlestown	176	BWSC Charlestown
166	BWSC Charlestown	167	MWRA Somerville Marginal
011	BWSC Charlestown	052	MWRA Somerville Marginal
		069	BWSC Charlestown
		137	BWSC Charlestown

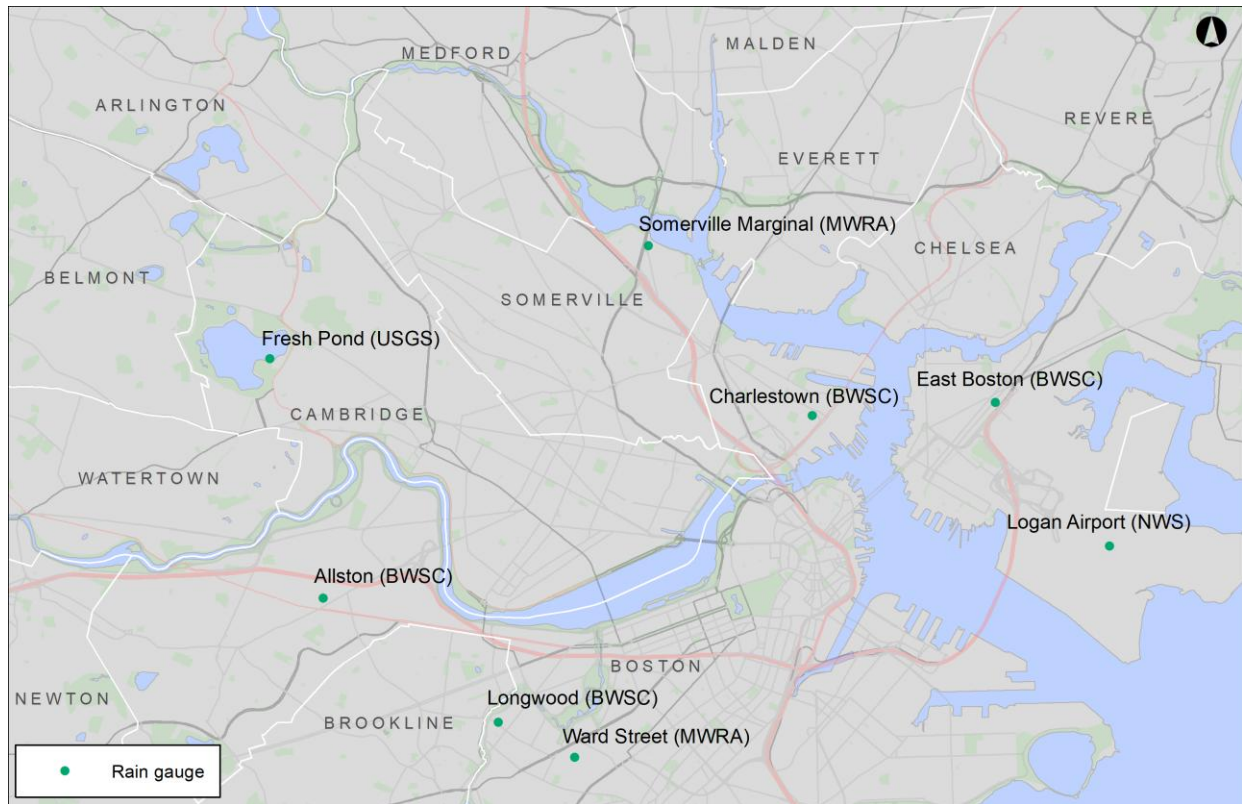


Figure I-1. Map of rain gauges utilized in this report.

Permanent rain gauges used in the analysis of water quality data in this report. This is a subset of MWRA's rain gauge network and are the most relevant gauges for the Charles River and Alewife Brook/Upper Mystic River Variance waters.

APPENDIX II

Charles River 2025 sample results collected within 72 hours of a CSO discharge

Appendix II: Charles River 2025 sample results collected within 72 hours of a CSO discharge, organized by rain event.

CSO Discharge Date	CSO Discharge Time (24h)	Outfall	Volume (MG)	Duration (decimal hours)	CSO Type			
7/20/2025	19:45	CAM005	0.17	0.50	Untreated			
	Station	Sample Date/Time	Enterococcus (#/100mL)	E. coli (#/100mL)	Nearest Rain Gauge	Prior 24 hour rain (in)	Prior 48 hour rain (in)	Prior 72 hour rain (in)
	001*	7/21/2025 9:33 AM	794	5480	FRESH_POND	0.42	0.42	0.42
	144*	7/21/2025 9:21 AM	5170	>24200	FRESH_POND	0.42	0.42	0.42
	002*	7/21/2025 9:14 AM	2910	>24200	FRESH_POND	0.42	0.42	0.42
	003	7/21/2025 8:56 AM	1300	2850	FRESH_POND	0.42	0.42	0.42
	004	7/21/2025 8:41 AM	41	171	BWSC004	0.62	0.62	0.62
	005	7/21/2025 8:34 AM	52	75	BWSC004	0.62	0.62	0.62
	006	7/21/2025 8:26 AM	84	487	BWSC004	0.62	0.62	0.62
	007	7/21/2025 8:17 AM	422	1470	BO-DI-1	0.53	0.53	0.53
	145	7/21/2025 8:21 AM	364	987	BO-DI-1	0.53	0.53	0.53
	008	7/21/2025 8:11 AM	364	4570	BO-DI-1	0.53	0.53	0.53
	009	7/21/2025 8:05 AM	20	98	BWSC007	0.31	0.31	0.31
	010	7/21/2025 7:57 AM	<10	10	BWSC007	0.31	0.31	0.31
	210	7/21/2025 7:54 AM	<10	10	BWSC007	0.31	0.31	0.31
	011	7/21/2025 7:46 AM	10	<10	BWSC007	0.31	0.31	0.31

CSO Discharge Date	CSO Discharge Time (24h)	Outfall	Volume (MG)	Duration (decimal hours)	CSO Type			
08/14/2025	18:45	CAM005	1.22	0.50	Untreated			
	Station	Sample Date/Time	Enterococcus (#/100mL)	E. coli (#/100mL)	Nearest Rain Gauge	Prior 24 hour rain (in)	Prior 48 hour rain (in)	Prior 72 hour rain (in)
	001*	8/15/2025 9:26 AM	203	754	FRESH_POND	0.63	0.63	0.63
	144*	8/15/2025 9:15 AM	565	13000	FRESH_POND	0.63	0.63	0.63
	002*	8/15/2025 9:10 AM	110	520	FRESH_POND	0.63	0.63	0.63
	003	8/15/2025 8:56 AM	1140	933	FRESH_POND	0.63	0.63	0.63
	004	8/15/2025 8:43 AM	455	855	BWSC004	0.37	0.37	0.37
	005	8/15/2025 8:38 AM	108	253	BWSC004	0.37	0.37	0.37
	006	8/15/2025 8:32 AM	146	1780	BWSC004	0.37	0.37	0.37
	007	8/15/2025 8:22 AM	317	5170	BO-DI-1	0.71	0.71	0.71
	145	8/15/2025 8:27 AM	2610	48100	BO-DI-1	0.71	0.71	0.71
	008	8/15/2025 8:18 AM	20	528	BO-DI-1	0.71	0.71	0.71
	009	8/15/2025 8:12 AM	52	52	BWSC007	0.29	0.3	0.3
	010	8/15/2025 8:01 AM	31	10	BWSC007	0.29	0.3	0.3
	210	8/15/2025 7:58 AM	30	41	BWSC007	0.29	0.3	0.3
	011	8/15/2025 7:51 AM	31	1620	BWSC007	0.29	0.3	0.3

CSO Discharge Date	CSO Discharge Time (24h)	Outfall	Volume (MG)	Duration (decimal hours)	CSO Type			
10/08/2025	09:15	CAM005	0.05	0.25	Untreated			
	Station	Sample Date/Time	Enterococcus (#/100mL)	E. coli (#/100mL)	Nearest Rain Gauge	Prior 24 hour rain (in)	Prior 48 hour rain (in)	Prior 72 hour rain (in)
	001*	10/10/25 10:35	10	712	FRESH_POND	0	0.05	1.12
	144*	10/10/25 10:25	52	4610	FRESH_POND	0	0.05	1.12
	002*	10/10/25 10:15	369	15500	FRESH_POND	0	0.05	1.12
	003	10/10/25 9:58	52	2380	FRESH_POND	0	0.05	1.12
	004	10/10/25 9:40	<10	292	BWSC004	0	0.08	0.90
	005	10/10/25 9:31	20	323	BWSC004	0	0.08	0.90
	006	10/10/25 9:23	52	262	BWSC004	0	0.08	0.90
	007	10/10/25 9:06	10	203	BO-DI-1	0	0.12	1.03
	145	10/10/25 9:13	20	148	BO-DI-1	0	0.11	1.03
	008	10/10/25 9:00	31	697	BO-DI-1	0	0.14	1.03
	009	10/10/25 8:50	<10	512	BWSC007	0	0.20	0.94
	010	10/10/25 8:43	10	52	BWSC007	0	0.24	0.94
	210	10/10/25 8:38	10	161	BWSC007	0	0.27	0.94
	011	10/10/25 8:29	<10	20	BWSC007	0	0.31	0.94

* Results from stations upstream of any CSO discharge for that event are shaded gray.

** Note that samples are collected only at treated CSOs during an activation, and four times annually per permit requirements. Available CSO bacteria data for events that included sampling at river stations is added here.

Receiving water samples reflect all pollutant sources to that water, such as CSO, stormwater, and upstream inputs.

APPENDIX III

Mystic River and Alewife Brook 2025 sample results collected within 72 hours of a CSO discharge

Appendix III: Mystic River and Alewife Brook 2025 sample results collected within 72 hours of a CSO discharge, organized by rain event.

CSO Discharge Date	CSO Discharge Time (24h)	Outfall	Volume (MG)	Duration (decimal hours)	CSO Type			
09/07/2025	18:10	SOM001A	0.39	0.25	Untreated			
	Station	Sample Date/Time	Enterococcus (#/100mL)	E. coli (#/100mL)	Nearest Rain Gauge	Prior 24 hour rain (in)	Prior 48 hour rain (in)	Prior 72 hour rain (in)
	174*	9/10/25 9:07	52	315	FRESH_POND	0.00	0.00	0.27
	074	9/10/25 9:12	85	355	FRESH_POND	0.00	0.00	0.25
	277	9/10/25 8:50	144	262	FRESH_POND	0.00	0.00	0.33
	172	9/10/25 8:52	132	393	FRESH_POND	0.00	0.00	0.32
	276	9/10/25 8:43	121	305	FRESH_POND	0.00	0.00	0.34
	070	9/10/25 8:29	122	211	FRESH_POND	0.00	0.00	0.36
	083*	9/10/25 10:02	31	195	FRESH_POND	0.00	0.00	0.09
	057	9/10/25 9:56	31	110	FRESH_POND	0.00	0.00	0.11
	056	9/10/25 9:29	20	185	FRESH_POND	0.00	0.00	0.19
	067	9/10/25 9:18	<10	63	BWSC007	0.00	0.00	0.31
	176*	9/10/25 9:08	20	262	BWSC007	0.00	0.00	0.33
	059	9/10/25 9:01	20	63	SOM_MARG	0.00	0.00	0.34

CSO Discharge Date	CSO Discharge Time (24h)	Outfall	Volume (MG)	Duration (decimal hours)	CSO Type			
10/08/2025	08:55	SOM001A	0.73	0.67	Untreated			
10/08/2025	10:30	SOM007A/MWR205A	0.04	0.25	Treated **			
10/08/2025	08:45	CAM401A	2.14	0.75	Untreated			
10/08/2025	09:15	CAM401B	0.03	0.75	Untreated			
	Station	Sample Date/Time	Enterococcus (#/100mL)	E. coli (#/100mL)	Nearest Rain Gauge	Prior 24 hour rain (in)	Prior 48 hour rain (in)	Prior 72 hour rain (in)
	174*	10/8/25 9:24	50400	153000	FRESH_POND	1.07	1.07	1.07
	074	10/8/25 9:29	32300	53800	FRESH_POND	1.07	1.07	1.07
	277	10/8/25 9:11	24200	57300	FRESH_POND	1.07	1.07	1.07
	172	10/8/25 9:11	37300	49600	FRESH_POND	1.07	1.07	1.07
	276	10/8/25 9:00	10500	58300	FRESH_POND	1.06	1.06	1.06
	070	10/8/25 8:48	24200	35000	FRESH_POND	1.04	1.04	1.04
	083*	10/8/25 9:59	19900	13000	FRESH_POND	1.07	1.07	1.07
	057	10/8/25 10:15	43200	39900	FRESH_POND	1.07	1.07	1.07
	066	10/8/25 10:45	10500	13000	FRESH_POND	1.08	1.08	1.08
	067	10/8/25 11:08	323	1110	BWSC007	0.90	0.90	0.90
	167	10/8/25 11:00	602	1940	SOM_MARG	0.92	0.92	0.92
	174*	10/9/25 8:43	3280	14100	FRESH_POND	0.09	1.12	1.12
	074	10/9/25 8:44	2310	13000	FRESH_POND	0.08	1.12	1.12
	277	10/9/25 8:23	1970	13000	FRESH_POND	0.18	1.12	1.12
	172	10/9/25 8:26	4610	10500	FRESH_POND	0.16	1.12	1.12
	276	10/9/25 8:16	2480	17300	FRESH_POND	0.21	1.12	1.12
	070	10/9/25 8:04	3780	24200	FRESH_POND	0.29	1.12	1.12
	083*	10/9/25 7:58	253	573	FRESH_POND	0.36	1.12	1.12
	057	10/9/25 7:47	201	426	FRESH_POND	0.61	1.12	1.12
	056	10/9/25 8:21	1320	6130	FRESH_POND	0.19	1.12	1.12
	067	10/9/25 8:41	847	4110	BWSC007	0.25	0.94	0.94
	176*	10/9/25 8:53	2010	19900	BWSC007	0.19	0.94	0.94
	059	10/9/25 9:01	708	4350	SOM_MARG	0.09	0.96	0.96

* Results from stations upstream of any CSO discharge for that event are shaded gray.

** Note that samples are collected only at treated CSOs during an activation, and four times annually per permit requirements. Available CSO bacteria data for events that included sampling at river stations is added here.

Receiving water samples reflect all pollutant sources to that water, such as CSO, stormwater, and upstream inputs.

Appendix III : Mystic River and Alewife Brook 2025 sample results collected within 72 hours of a CSO discharge, organized by rain event.

CSO Discharge Date	CSO Discharge Time (24h)	Outfall	Volume (MG)	Duration (decimal hours)	CSO Type			
10/13/2025	16:00	SOM007A/MWR205A	0.59	0.25	Treated**			
	Station	Sample Date/Time	Enterococcus (#/100mL)	E. coli (#/100mL)	Nearest Rain Gauge	Prior 24 hour rain (in)	Prior 48 hour rain (in)	Prior 72 hour rain (in)
	083*	10/14/25 9:09	226	195	FRESH_POND	0.72	1.41	1.41
	066	10/14/25 9:00	399	341	FRESH_POND	0.73	1.40	1.40
	066	10/14/25 9:00	487	435	FRESH_POND	0.73	1.40	1.40
	177	10/14/25 8:18	7270	1450	FRESH_POND	0.74	1.39	1.39
	174*	10/16/25 10:10	156	404	FRESH_POND	0.00	0.06	0.67
	074	10/16/25 10:14	84	443	FRESH_POND	0.00	0.06	0.66
	277	10/16/25 9:54	120	520	FRESH_POND	0.00	0.06	0.70
	172	10/16/25 9:57	121	471	FRESH_POND	0.00	0.06	0.70
	276	10/16/25 9:47	145	350	FRESH_POND	0.00	0.06	0.72
	070	10/16/25 9:35	146	292	FRESH_POND	0.00	0.06	0.74
	083*	10/16/25 9:28	122	86	FRESH_POND	0.00	0.06	0.75
	057	10/16/25 9:18	52	121	FRESH_POND	0.00	0.06	0.77
	056	10/16/25 10:10	122	173	FRESH_POND	0.00	0.06	0.67
	067	10/16/25 9:52	63	121	BWSC007	0.00	0.15	1.50
	176*	10/16/25 9:38	121	350	BWSC007	0.00	0.15	1.55
	059	10/16/25 9:31	52	275	SOM_MARG	0.00	0.12	1.15

CSO Discharge Date	CSO Discharge Time (24h)	Outfall	Volume (MG)	Duration (decimal hours)	CSO Type			
10/22/2025	08:54	CAM401A	0.21	0.33	Untreated			
	Station	Sample Date/Time	Enterococcus (#/100mL)	E. coli (#/100mL)	Nearest Rain Gauge	Prior 24 hour rain (in)	Prior 48 hour rain (in)	Prior 72 hour rain (in)
	174*	10/23/25 9:26	410	1080	FRESH_POND	0.00	0.46	1.19
	074	10/23/25 9:27	313	882	FRESH_POND	0.00	0.46	1.18
	277	10/23/25 9:12	528	767	FRESH_POND	0.00	0.46	1.20
	172	10/23/25 9:13	345	860	FRESH_POND	0.00	0.46	1.20
	276	10/23/25 9:03	428	663	FRESH_POND	0.00	0.46	1.21
	070	10/23/25 8:52	933	1230	FRESH_POND	0.00	0.46	1.21
	083*	10/23/25 8:40	187	269	FRESH_POND	0.00	0.46	1.21
	057	10/23/25 8:33	148	285	FRESH_POND	0.00	0.46	1.21
	056	10/23/25 8:12	336	292	FRESH_POND	0.01	0.46	1.21
	067	10/23/25 8:32	187	309	BWSC007	0.09	0.51	1.14
	176*	10/23/25 8:44	96	428	BWSC007	0.09	0.51	1.14
	059	10/23/25 8:53	31	246	SOM_MARG	0.02	0.57	1.25

* Results from stations upstream of any CSO discharge for that event are shaded gray.

** Note that samples are collected only at treated CSOs during an activation, and four times annually per permit requirements. Available CSO bacteria data for events that included sampling at river stations is added here.

Receiving water samples reflect all pollutant sources to that water, such as CSO, stormwater, and upstream inputs.

APPENDIX IV

2025 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.

Region	Subregion	Station	Day/Time(EST)	Surface/Bottom	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)
CHARLES RIVER	UPPER BASIN	012	08-Jan-25	S	0.1	0	0	0	41	128	
CHARLES RIVER	UPPER BASIN	012	21-Jan-25	S	0.1	0	0.01	0.38	5	152	
CHARLES RIVER	UPPER BASIN	012	04-Feb-25	S	0.1	0	0.05	0.15	63.5	202	
CHARLES RIVER	UPPER BASIN	012	20-Feb-25	S	0.1	0	0	0	109	184.5	
CHARLES RIVER	UPPER BASIN	012	03-Mar-25	S	0.1	0	0	0	0	67.5	
CHARLES RIVER	UPPER BASIN	012	20-Mar-25	S	0.1	0	0	0	31	63	
CHARLES RIVER	UPPER BASIN	012	31-Mar-25	S	0.1	0.23	0.25	0.29	10	63	
CHARLES RIVER	UPPER BASIN	012	14-Apr-25	S	0.1	0	0.08	0.45	41	97	
CHARLES RIVER	UPPER BASIN	012	28-Apr-25	S	0.1	0	0	0.55	52	74	
CHARLES RIVER	UPPER BASIN	012	15-May-25	S	0.1	0.35	0.35	0.35	1720	2490	
CHARLES RIVER	UPPER BASIN	012	28-May-25	S	0.1	0	0	0	63	262	
CHARLES RIVER	UPPER BASIN	012	09-Jun-25	S	0.1	0.01	0.01	1.05	275	670	
CHARLES RIVER	UPPER BASIN	012	27-Jun-25	S	0.1	0	0	0	41	596	
CHARLES RIVER	UPPER BASIN	012	07-Jul-25	S	0.1	0	0	0	20	566	
CHARLES RIVER	UPPER BASIN	012	25-Jul-25	S	0.1	0.1	0.1	0.1	30	228	
CHARLES RIVER	UPPER BASIN	012	08-Aug-25	S	0.1	0	0	0	0	86	
CHARLES RIVER	UPPER BASIN	012	18-Aug-25	S	0.1	0	0	0	20	98	
CHARLES RIVER	UPPER BASIN	012	02-Sep-25	S	0.1	0	0	0	126	860	
CHARLES RIVER	UPPER BASIN	012	15-Sep-25	S	0.1	0	0	0	0	144	
CHARLES RIVER	UPPER BASIN	012	02-Oct-25	S	0.1	0	0	0	10	246	
CHARLES RIVER	UPPER BASIN	012	14-Oct-25	S	0.1	0.3	1.97	2.42	860	909	
CHARLES RIVER	UPPER BASIN	012	29-Oct-25	S	0.1	0	0	0	15.5	46.5	
CHARLES RIVER	UPPER BASIN	012	13-Nov-25	S	0.1	0.01	0.01	0.01	31	41	
CHARLES RIVER	UPPER BASIN	012	24-Nov-25	S	0.1	0	0	0.1	52	31	
CHARLES RIVER	UPPER BASIN	012	10-Dec-25	S	0.1	0.04	0.04	0.04	15	68.5	
CHARLES RIVER	UPPER BASIN	012	22-Dec-25	S	0.1	0	0	0	86	197	
CHARLES RIVER	UPPER BASIN	001	04-Apr-25	S	0.1	0	0.19	0.26	52	120	
CHARLES RIVER	UPPER BASIN	001	16-Apr-25	S	0.1	0	0.08	0.08	10	74	
CHARLES RIVER	UPPER BASIN	001	29-Apr-25	S	0.1	0	0	0	0	110	
CHARLES RIVER	UPPER BASIN	001	05-May-25	S	0.1	0.75	0.84	0.89	6130	5480	
CHARLES RIVER	UPPER BASIN	001	09-May-25	S	0.1	1.09	1.09	1.11	146	399	
CHARLES RIVER	UPPER BASIN	001	14-May-25	S	0.1	0	0	0	63	836	
CHARLES RIVER	UPPER BASIN	001	02-Jun-25	S	0.1	0	0	0.21	62	4350	
CHARLES RIVER	UPPER BASIN	001	06-Jun-25	S	0.1	0	0	0	86	2760	
CHARLES RIVER	UPPER BASIN	001	12-Jun-25	S	0.1	0	0	0.15	31	670	
CHARLES RIVER	UPPER BASIN	001	30-Jun-25	S	0.1	0	0	0.03	41	5790	
CHARLES RIVER	UPPER BASIN	001	21-Jul-25	S	0.1	0	0.2	0.2	794	5480	
CHARLES RIVER	UPPER BASIN	001	11-Aug-25	S	0.1	0	0	0	20	301	
CHARLES RIVER	UPPER BASIN	001	15-Aug-25	S	0.1	0	0.24	0.24	203	754	
CHARLES RIVER	UPPER BASIN	001	05-Sep-25	S	0.1	0.08	0.08	0.08	191	420	
CHARLES RIVER	UPPER BASIN	001	12-Sep-25	S	0.1	0	0	0	20	706	
CHARLES RIVER	UPPER BASIN	001	16-Sep-25	S	0.1	0	0	0	10	246	
CHARLES RIVER	UPPER BASIN	001	19-Sep-25	S	0.1	0	0.11	0.12	148	1860	
CHARLES RIVER	UPPER BASIN	001	10-Oct-25	S	0.1	0	0	0.85	10	712	
CHARLES RIVER	UPPER BASIN	001	21-Oct-25	S	0.1	0	0.62	0.62	75	199	
CHARLES RIVER	UPPER BASIN	001	24-Oct-25	S	0.1	0	0	0.41	30	199	
CHARLES RIVER	UPPER BASIN	001	07-Nov-25	S	0.1	0.01	0.01	0.03	0	41	
CHARLES RIVER	UPPER BASIN	144	04-Apr-25	S	0.1	0	0.19	0.26	20	120	
CHARLES RIVER	UPPER BASIN	144	16-Apr-25	S	0.1	0	0.08	0.08	0	84	
CHARLES RIVER	UPPER BASIN	144	29-Apr-25	S	0.1	0	0	0	0	31	
CHARLES RIVER	UPPER BASIN	144	05-May-25	S	0.1	0.75	0.84	0.89	2610	3650	
CHARLES RIVER	UPPER BASIN	144	09-May-25	S	0.1	1.09	1.09	1.11	51	256	
CHARLES RIVER	UPPER BASIN	144	14-May-25	S	0.1	0	0	0	20	243	
CHARLES RIVER	UPPER BASIN	144	02-Jun-25	S	0.1	0	0	0.21	30	173	
CHARLES RIVER	UPPER BASIN	144	06-Jun-25	S	0.1	0	0	0	75	243	
CHARLES RIVER	UPPER BASIN	144	12-Jun-25	S	0.1	0	0	0.15	63	411	
CHARLES RIVER	UPPER BASIN	144	30-Jun-25	S	0.1	0	0	0.03	10	521	
CHARLES RIVER	UPPER BASIN	144	21-Jul-25	S	0.1	0	0.2	0.2	5170		
CHARLES RIVER	UPPER BASIN	144	11-Aug-25	S	0.1	0	0	0	0	145	
CHARLES RIVER	UPPER BASIN	144	15-Aug-25	S	0.1	0	0.24	0.24	565	13000	

Region	Subregion	Station	Day/Time(EST)	Surface/Bottom	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)
CHARLES RIVER	UPPER BASIN	144	05-Sep-25	S	0.1	0.08	0.08	0.08	10	41	
CHARLES RIVER	UPPER BASIN	144	12-Sep-25	S	0.1	0	0	0	0	161	
CHARLES RIVER	UPPER BASIN	144	16-Sep-25	S	0.1	0	0	0	0	175	
CHARLES RIVER	UPPER BASIN	144	19-Sep-25	S	0.1	0	0.11	0.12	0	160	
CHARLES RIVER	UPPER BASIN	144	10-Oct-25	S	0.1	0	0	0.85	52	4610	
CHARLES RIVER	UPPER BASIN	144	21-Oct-25	S	0.1	0	0.62	0.62	457	723	
CHARLES RIVER	UPPER BASIN	144	24-Oct-25	S	0.1	0	0	0.41	51	203	
CHARLES RIVER	UPPER BASIN	144	07-Nov-25	S	0.1	0.01	0.01	0.03	10	109	
CHARLES RIVER	UPPER BASIN	002	04-Apr-25	S	0.1	0	0.19	0.26	10	134	
CHARLES RIVER	UPPER BASIN	002	16-Apr-25	S	0.1	0	0.08	0.08	41	145	
CHARLES RIVER	UPPER BASIN	002	29-Apr-25	S	0.1	0	0	0	10	41	
CHARLES RIVER	UPPER BASIN	002	05-May-25	S	0.1	0.75	0.84	0.89	2910	3080	
CHARLES RIVER	UPPER BASIN	002	09-May-25	S	0.1	1.09	1.09	1.11	75	199	
CHARLES RIVER	UPPER BASIN	002	14-May-25	S	0.1	0	0	0	41	132	
CHARLES RIVER	UPPER BASIN	002	02-Jun-25	S	0.1	0	0	0.21	85	410	
CHARLES RIVER	UPPER BASIN	002	06-Jun-25	S	0.1	0	0	0	31	241	
CHARLES RIVER	UPPER BASIN	002	12-Jun-25	S	0.1	0	0	0.15	94	620	
CHARLES RIVER	UPPER BASIN	002	30-Jun-25	S	0.1	0	0	0.03	20	231	
CHARLES RIVER	UPPER BASIN	002	21-Jul-25	S	0.1	0	0.2	0.2	2910		
CHARLES RIVER	UPPER BASIN	002	11-Aug-25	S	0.1	0	0	0	0	20	
CHARLES RIVER	UPPER BASIN	002	15-Aug-25	S	0.1	0	0.24	0.24	110	520	
CHARLES RIVER	UPPER BASIN	002	05-Sep-25	S	0.1	0.08	0.08	0.08	0	20	
CHARLES RIVER	UPPER BASIN	002	12-Sep-25	S	0.1	0	0	0	20	63	
CHARLES RIVER	UPPER BASIN	002	16-Sep-25	S	0.1	0	0	0	0	97	
CHARLES RIVER	UPPER BASIN	002	19-Sep-25	S	0.1	0	0.11	0.12	0	10	
CHARLES RIVER	UPPER BASIN	002	10-Oct-25	S	0.1	0	0	0.85	369	15500	
CHARLES RIVER	UPPER BASIN	002	21-Oct-25	S	0.1	0	0.62	0.62	1370	1720	
CHARLES RIVER	UPPER BASIN	002	24-Oct-25	S	0.1	0	0	0.41	20	886	
CHARLES RIVER	UPPER BASIN	002	07-Nov-25	S	0.1	0.01	0.01	0.03	10	355	
CHARLES RIVER	UPPER BASIN	003	04-Apr-25	S	0.1	0	0.19	0.26	20	173	
CHARLES RIVER	UPPER BASIN	003	16-Apr-25	S	0.1	0	0.08	0.08	119	160	
CHARLES RIVER	UPPER BASIN	003	29-Apr-25	S	0.1	0	0	0	10	41	
CHARLES RIVER	UPPER BASIN	003	05-May-25	S	0.1	0.75	0.84	0.89	813	1780	
CHARLES RIVER	UPPER BASIN	003	09-May-25	S	0.1	1.09	1.09	1.11	30	109	
CHARLES RIVER	UPPER BASIN	003	14-May-25	S	0.1	0	0	0	51	156	
CHARLES RIVER	UPPER BASIN	003	02-Jun-25	S	0.1	0	0	0.21	63	816	
CHARLES RIVER	UPPER BASIN	003	06-Jun-25	S	0.1	0	0	0	63	209	
CHARLES RIVER	UPPER BASIN	003	12-Jun-25	S	0.1	0	0	0.15	31	450	
CHARLES RIVER	UPPER BASIN	003	30-Jun-25	S	0.1	0	0	0.03	20	253	
CHARLES RIVER	UPPER BASIN	003	21-Jul-25	S	0.1	0	0.2	0.2	1300	2850	
CHARLES RIVER	UPPER BASIN	003	11-Aug-25	S	0.1	0	0	0	10	75	
CHARLES RIVER	UPPER BASIN	003	15-Aug-25	S	0.1	0	0.24	0.24	1140	933	
CHARLES RIVER	UPPER BASIN	003	05-Sep-25	S	0.1	0.08	0.08	0.08	10	52	
CHARLES RIVER	UPPER BASIN	003	12-Sep-25	S	0.1	0	0	0	0	85	
CHARLES RIVER	UPPER BASIN	003	16-Sep-25	S	0.1	0	0	0	10	31	
CHARLES RIVER	UPPER BASIN	003	19-Sep-25	S	0.1	0	0.11	0.12	10	52	
CHARLES RIVER	UPPER BASIN	003	10-Oct-25	S	0.1	0	0	0.85	52	2380	
CHARLES RIVER	UPPER BASIN	003	21-Oct-25	S	0.1	0	0.62	0.62	121	520	
CHARLES RIVER	UPPER BASIN	003	24-Oct-25	S	0.1	0	0	0.41	98	733	
CHARLES RIVER	UPPER BASIN	003	07-Nov-25	S	0.1	0.01	0.01	0.03	10	749	
CHARLES RIVER	UPPER BASIN	004	04-Apr-25	S	0.1	0	0.19	0.26	20	243	
CHARLES RIVER	UPPER BASIN	004	16-Apr-25	S	0.1	0	0.08	0.08	20	135	
CHARLES RIVER	UPPER BASIN	004	29-Apr-25	S	0.1	0	0	0	10	31	
CHARLES RIVER	UPPER BASIN	004	05-May-25	S	0.1	0.75	0.84	0.89	285	292	
CHARLES RIVER	UPPER BASIN	004	09-May-25	S	0.1	1.09	1.09	1.11	10	122	
CHARLES RIVER	UPPER BASIN	004	14-May-25	S	0.1	0	0	0	10	160	
CHARLES RIVER	UPPER BASIN	004	02-Jun-25	S	0.1	0	0	0.21	41	650	
CHARLES RIVER	UPPER BASIN	004	06-Jun-25	S	0.1	0	0	0	20	195	
CHARLES RIVER	UPPER BASIN	004	12-Jun-25	S	0.1	0	0	0.15	31	189	
CHARLES RIVER	UPPER BASIN	004	30-Jun-25	S	0.1	0	0	0.03	10	41	

Region	Subregion	Station	Day/Time(EST)	Surface/Bottom	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)
CHARLES RIVER	UPPER BASIN	004	21-Jul-25	S	0.1	0	0.2	0.2	41	171	
CHARLES RIVER	UPPER BASIN	004	11-Aug-25	S	0.1	0	0	0	0	20	
CHARLES RIVER	UPPER BASIN	004	15-Aug-25	S	0.1	0	0.24	0.24	455	855	
CHARLES RIVER	UPPER BASIN	004	05-Sep-25	S	0.1	0.08	0.08	0.08	20	41	
CHARLES RIVER	UPPER BASIN	004	12-Sep-25	S	0.1	0	0	0	20	156	
CHARLES RIVER	UPPER BASIN	004	16-Sep-25	S	0.1	0	0	0	0	0	
CHARLES RIVER	UPPER BASIN	004	19-Sep-25	S	0.1	0	0.11	0.12	41	148	
CHARLES RIVER	UPPER BASIN	004	10-Oct-25	S	0.1	0	0	0.85	0	292	
CHARLES RIVER	UPPER BASIN	004	21-Oct-25	S	0.1	0	0.62	0.62	1860	3970	
CHARLES RIVER	UPPER BASIN	004	24-Oct-25	S	0.1	0	0	0.41	158	480	
CHARLES RIVER	UPPER BASIN	004	07-Nov-25	S	0.1	0.01	0.01	0.03	20	311	
CHARLES RIVER	UPPER BASIN	005	20-Mar-25	S	0.1	0	0	0	10	74	
CHARLES RIVER	UPPER BASIN	005	31-Mar-25	S	0.1	0.23	0.25	0.29	0	122	
CHARLES RIVER	UPPER BASIN	005	04-Apr-25	S	0.1	0	0.19	0.26	20	122	
CHARLES RIVER	UPPER BASIN	005	14-Apr-25	S	0.1	0	0.08	0.45	20	109	
CHARLES RIVER	UPPER BASIN	005	16-Apr-25	S	0.1	0	0.08	0.08	31	96	
CHARLES RIVER	UPPER BASIN	005	28-Apr-25	S	0.1	0	0	0.55	10	185	
CHARLES RIVER	UPPER BASIN	005	29-Apr-25	S	0.1	0	0	0	10	31	
CHARLES RIVER	UPPER BASIN	005	05-May-25	S	0.1	0.75	0.84	0.89	262	211	
CHARLES RIVER	UPPER BASIN	005	09-May-25	S	0.1	1.09	1.09	1.11	30	269	
CHARLES RIVER	UPPER BASIN	005	14-May-25	S	0.1	0	0	0	20	256	
CHARLES RIVER	UPPER BASIN	005	15-May-25	S	0.1	0.35	0.35	0.35	85	171	
CHARLES RIVER	UPPER BASIN	005	28-May-25	S	0.1	0	0	0	10	97	
CHARLES RIVER	UPPER BASIN	005	02-Jun-25	S	0.1	0	0	0.21	31	259	
CHARLES RIVER	UPPER BASIN	005	06-Jun-25	S	0.1	0	0	0	0	130	
CHARLES RIVER	UPPER BASIN	005	09-Jun-25	S	0.1	0.01	0.01	1.05	132	624	
CHARLES RIVER	UPPER BASIN	005	12-Jun-25	S	0.1	0	0	0.15	10	259	
CHARLES RIVER	UPPER BASIN	005	27-Jun-25	S	0.1	0	0	0	3450	4610	
CHARLES RIVER	UPPER BASIN	005	30-Jun-25	S	0.1	0	0	0.03	10	97	
CHARLES RIVER	UPPER BASIN	005	07-Jul-25	S	0.1	0	0	0	10	393	
CHARLES RIVER	UPPER BASIN	005	21-Jul-25	S	0.1	0	0.2	0.2	52	75	
CHARLES RIVER	UPPER BASIN	005	25-Jul-25	S	0.1	0.1	0.1	0.1	0	31	
CHARLES RIVER	UPPER BASIN	005	08-Aug-25	S	0.1	0	0	0	20	97	
CHARLES RIVER	UPPER BASIN	005	11-Aug-25	S	0.1	0	0	0	30	62	
CHARLES RIVER	UPPER BASIN	005	15-Aug-25	S	0.1	0	0.24	0.24	108	253	
CHARLES RIVER	UPPER BASIN	005	18-Aug-25	S	0.1	0	0	0	0	41	
CHARLES RIVER	UPPER BASIN	005	02-Sep-25	S	0.1	0	0	0	30	31	
CHARLES RIVER	UPPER BASIN	005	05-Sep-25	S	0.1	0.08	0.08	0.08	41	52	
CHARLES RIVER	UPPER BASIN	005	12-Sep-25	S	0.1	0	0	0	63	520	
CHARLES RIVER	UPPER BASIN	005	15-Sep-25	S	0.1	0	0	0	10	121	
CHARLES RIVER	UPPER BASIN	005	16-Sep-25	S	0.1	0	0	0	0	10	
CHARLES RIVER	UPPER BASIN	005	19-Sep-25	S	0.1	0	0.11	0.12	63	134	
CHARLES RIVER	UPPER BASIN	005	02-Oct-25	S	0.1	0	0	0	10	97	
CHARLES RIVER	UPPER BASIN	005	10-Oct-25	S	0.1	0	0	0.85	20	323	
CHARLES RIVER	UPPER BASIN	005	14-Oct-25	S	0.1	0.3	1.97	2.42	175	414	
CHARLES RIVER	UPPER BASIN	005	21-Oct-25	S	0.1	0	0.62	0.62	379	609	
CHARLES RIVER	UPPER BASIN	005	24-Oct-25	S	0.1	0	0	0.41	30	305	
CHARLES RIVER	UPPER BASIN	005	29-Oct-25	S	0.1	0	0	0	20	52	
CHARLES RIVER	UPPER BASIN	005	07-Nov-25	S	0.1	0.01	0.01	0.03	10	122	
CHARLES RIVER	UPPER BASIN	005	13-Nov-25	S	0.1	0.01	0.01	0.01	109	602	
CHARLES RIVER	UPPER BASIN	005	24-Nov-25	S	0.1	0	0	0.1	41	1720	
CHARLES RIVER	UPPER BASIN	005	22-Dec-25	S	0.1	0	0	0	259	691	
CHARLES RIVER	MID-BASIN	006	04-Apr-25	S	0.1	0	0.19	0.26	10	243	
CHARLES RIVER	MID-BASIN	006	16-Apr-25	S	0.1	0	0.08	0.08	20	134	
CHARLES RIVER	MID-BASIN	006	29-Apr-25	S	0.1	0	0	0	10	41	
CHARLES RIVER	MID-BASIN	006	05-May-25	S	0.1	0.75	0.84	0.89	183	132	
CHARLES RIVER	MID-BASIN	006	09-May-25	S	0.1	1.09	1.09	1.11	30	86	
CHARLES RIVER	MID-BASIN	006	14-May-25	S	0.1	0	0	0	10	134	
CHARLES RIVER	MID-BASIN	006	02-Jun-25	S	0.1	0	0	0.21	41	259	
CHARLES RIVER	MID-BASIN	006	06-Jun-25	S	0.1	0	0	0	10	109	

Region	Subregion	Station	Day/Time(EST)	Surface/Bottom	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)
CHARLES RIVER	MID-BASIN	006	12-Jun-25	S	0.1	0	0	0.15	31	131	
CHARLES RIVER	MID-BASIN	006	30-Jun-25	S	0.1	0	0	0.03	10	74	
CHARLES RIVER	MID-BASIN	006	21-Jul-25	S	0.1	0	0.2	0.2	84	487	
CHARLES RIVER	MID-BASIN	006	11-Aug-25	S	0.1	0	0	0	0	63	
CHARLES RIVER	MID-BASIN	006	15-Aug-25	S	0.1	0	0.24	0.24	146	1780	
CHARLES RIVER	MID-BASIN	006	05-Sep-25	S	0.1	0.08	0.08	0.08	84	161	
CHARLES RIVER	MID-BASIN	006	12-Sep-25	S	0.1	0	0	0	146	253	
CHARLES RIVER	MID-BASIN	006	16-Sep-25	S	0.1	0	0	0	0	20	
CHARLES RIVER	MID-BASIN	006	19-Sep-25	S	0.1	0	0.11	0.12	10	98	
CHARLES RIVER	MID-BASIN	006	10-Oct-25	S	0.1	0	0	0.85	52	262	
CHARLES RIVER	MID-BASIN	006	21-Oct-25	S	0.1	0	0.62	0.62	63	279	
CHARLES RIVER	MID-BASIN	006	24-Oct-25	S	0.1	0	0	0.41	63	288	
CHARLES RIVER	MID-BASIN	006	07-Nov-25	S	0.1	0.01	0.01	0.03	10	226	
CHARLES RIVER	MID-BASIN	007	04-Apr-25	B	4.5	0	0.19	0.26	10	98	
CHARLES RIVER	MID-BASIN	007	04-Apr-25	S	0.1	0	0.19	0.26	41	63	
CHARLES RIVER	MID-BASIN	007	16-Apr-25	B	4.7	0	0.08	0.08	10	110	
CHARLES RIVER	MID-BASIN	007	16-Apr-25	S	0.1	0	0.08	0.08	30	146	
CHARLES RIVER	MID-BASIN	007	29-Apr-25	S	0.1	0	0	0	10	201	
CHARLES RIVER	MID-BASIN	007	29-Apr-25	B	4.1	0	0	0	0	98	
CHARLES RIVER	MID-BASIN	007	05-May-25	B	4.5	0.75	0.84	0.89	41	305	
CHARLES RIVER	MID-BASIN	007	05-May-25	S	0.1	0.75	0.84	0.89	31	86	
CHARLES RIVER	MID-BASIN	007	09-May-25	B	4.6	1.09	1.09	1.11	30	98	
CHARLES RIVER	MID-BASIN	007	09-May-25	S	0.1	1.09	1.09	1.11	10	98	
CHARLES RIVER	MID-BASIN	007	14-May-25	B	3.9	0	0	0	0	110	
CHARLES RIVER	MID-BASIN	007	14-May-25	S	0.1	0	0	0	31	108	
CHARLES RIVER	MID-BASIN	007	02-Jun-25	S	0.1	0	0	0.21	31	98	
CHARLES RIVER	MID-BASIN	007	02-Jun-25	B	4.9	0	0	0.21	41	97	
CHARLES RIVER	MID-BASIN	007	06-Jun-25	S	0.1	0	0	0	0	10	
CHARLES RIVER	MID-BASIN	007	06-Jun-25	B	4.5	0	0	0	253	134	
CHARLES RIVER	MID-BASIN	007	12-Jun-25	S	0.1	0	0	0.15	10	238	
CHARLES RIVER	MID-BASIN	007	12-Jun-25	B	4.7	0	0	0.15	30	169	
CHARLES RIVER	MID-BASIN	007	30-Jun-25	B	4.3	0	0	0.03	86	109	
CHARLES RIVER	MID-BASIN	007	30-Jun-25	S	0.1	0	0	0.03	73	359	
CHARLES RIVER	MID-BASIN	007	21-Jul-25	S	0.1	0	0.2	0.2	422	1470	
CHARLES RIVER	MID-BASIN	007	21-Jul-25	B	4.5	0	0.2	0.2	379	6890	
CHARLES RIVER	MID-BASIN	007	11-Aug-25	B	4.7	0	0	0	31	10	
CHARLES RIVER	MID-BASIN	007	11-Aug-25	S	0.1	0	0	0	10	20	
CHARLES RIVER	MID-BASIN	007	15-Aug-25	S	0.1	0	0.24	0.24	317	5170	
CHARLES RIVER	MID-BASIN	007	15-Aug-25	B	4.7	0	0.24	0.24	345	4350	
CHARLES RIVER	MID-BASIN	007	05-Sep-25	S	0.1	0.08	0.08	0.08	20	20	
CHARLES RIVER	MID-BASIN	007	05-Sep-25	B	4.3	0.08	0.08	0.08	10	171	
CHARLES RIVER	MID-BASIN	007	12-Sep-25	S	0.1	0	0	0	10	51	
CHARLES RIVER	MID-BASIN	007	12-Sep-25	B	4.5	0	0	0	0	0	
CHARLES RIVER	MID-BASIN	007	16-Sep-25	B	4.2	0	0	0	41	275	
CHARLES RIVER	MID-BASIN	007	16-Sep-25	S	0.1	0	0	0	0	31	
CHARLES RIVER	MID-BASIN	007	19-Sep-25	B	4.3	0	0.11	0.12	336	749	
CHARLES RIVER	MID-BASIN	007	19-Sep-25	S	0.1	0	0.11	0.12	0	41	
CHARLES RIVER	MID-BASIN	007	10-Oct-25	B	4.1	0	0	0.85	31	435	
CHARLES RIVER	MID-BASIN	007	10-Oct-25	S	0.1	0	0	0.85	10	203	
CHARLES RIVER	MID-BASIN	007	21-Oct-25	S	0.1	0	0.62	0.62	161	241	
CHARLES RIVER	MID-BASIN	007	21-Oct-25	B	4.3	0	0.62	0.62	85	228	
CHARLES RIVER	MID-BASIN	007	24-Oct-25	B	4.8	0	0	0.41	31	313	
CHARLES RIVER	MID-BASIN	007	24-Oct-25	S	0.1	0	0	0.41	20	216	
CHARLES RIVER	MID-BASIN	007	07-Nov-25	S	0.1	0.01	0.01	0.03	10	63	
CHARLES RIVER	MID-BASIN	007	07-Nov-25	B	4.2	0.01	0.01	0.03	10	63	
CHARLES RIVER	MID-BASIN	145	04-Apr-25	S	0.1	0	0.19	0.26	52	86	
CHARLES RIVER	MID-BASIN	145	16-Apr-25	S	0.1	0	0.08	0.08	0	97	
CHARLES RIVER	MID-BASIN	145	29-Apr-25	S	0.1	0	0	0	10	132	
CHARLES RIVER	MID-BASIN	145	05-May-25	S	0.1	0.75	0.84	0.89	393	2190	
CHARLES RIVER	MID-BASIN	145	09-May-25	S	0.1	1.09	1.09	1.11	109	631	

Region	Subregion	Station	Day/Time(EST)	Surface/Bottom	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)
CHARLES RIVER	MID-BASIN	145	14-May-25	S	0.1	0	0	0	0	75	
CHARLES RIVER	MID-BASIN	145	02-Jun-25	S	0.1	0	0	0.21	0	41	
CHARLES RIVER	MID-BASIN	145	06-Jun-25	S	0.1	0	0	0	10	110	
CHARLES RIVER	MID-BASIN	145	12-Jun-25	S	0.1	0	0	0.15	20	231	
CHARLES RIVER	MID-BASIN	145	30-Jun-25	S	0.1	0	0	0.03	20	0	
CHARLES RIVER	MID-BASIN	145	21-Jul-25	S	0.1	0	0.2	0.2	364	987	
CHARLES RIVER	MID-BASIN	145	11-Aug-25	S	0.1	0	0	0	30	0	
CHARLES RIVER	MID-BASIN	145	15-Aug-25	S	0.1	0	0.24	0.24	2610	48100	
CHARLES RIVER	MID-BASIN	145	05-Sep-25	S	0.1	0.08	0.08	0.08	41	199	
CHARLES RIVER	MID-BASIN	145	12-Sep-25	S	0.1	0	0	0	41	189	
CHARLES RIVER	MID-BASIN	145	16-Sep-25	S	0.1	0	0	0	20	52	
CHARLES RIVER	MID-BASIN	145	19-Sep-25	S	0.1	0	0.11	0.12	52	583	
CHARLES RIVER	MID-BASIN	145	10-Oct-25	S	0.1	0	0	0.85	20	148	
CHARLES RIVER	MID-BASIN	145	21-Oct-25	S	0.1	0	0.62	0.62	282	1300	
CHARLES RIVER	MID-BASIN	145	24-Oct-25	S	0.1	0	0	0.41	63	318	
CHARLES RIVER	MID-BASIN	145	07-Nov-25	S	0.1	0.01	0.01	0.03	41	158	
CHARLES RIVER	MID-BASIN	008	04-Apr-25	S	0.1	0	0.19	0.26	63	120	
CHARLES RIVER	MID-BASIN	008	04-Apr-25	B	3.7	0	0.19	0.26	74	187	
CHARLES RIVER	MID-BASIN	008	16-Apr-25	B	3.4	0	0.08	0.08	0	31	
CHARLES RIVER	MID-BASIN	008	16-Apr-25	S	0.1	0	0.08	0.08	0	120	
CHARLES RIVER	MID-BASIN	008	29-Apr-25	B	3.8	0	0	0	63	98	
CHARLES RIVER	MID-BASIN	008	29-Apr-25	S	0.1	0	0	0	20	41	
CHARLES RIVER	MID-BASIN	008	05-May-25	B	3.9	0.75	0.84	0.89	52	285	
CHARLES RIVER	MID-BASIN	008	05-May-25	S	0.1	0.75	0.84	0.89	109	389	
CHARLES RIVER	MID-BASIN	008	09-May-25	B	3.4	1.09	1.09	1.11	20	171	
CHARLES RIVER	MID-BASIN	008	09-May-25	S	0.1	1.09	1.09	1.11	41	109	
CHARLES RIVER	MID-BASIN	008	14-May-25	B	3.9	0	0	0	10	63	
CHARLES RIVER	MID-BASIN	008	14-May-25	S	0.1	0	0	0	10	41	
CHARLES RIVER	MID-BASIN	008	02-Jun-25	B	4.1	0	0	0.21	63	121	
CHARLES RIVER	MID-BASIN	008	02-Jun-25	S	0.1	0	0	0.21	10	51	
CHARLES RIVER	MID-BASIN	008	06-Jun-25	S	0.1	0	0	0	20	31	
CHARLES RIVER	MID-BASIN	008	06-Jun-25	B	4.5	0	0	0	20	20	
CHARLES RIVER	MID-BASIN	008	12-Jun-25	S	0.1	0	0	0.15	10	109	
CHARLES RIVER	MID-BASIN	008	12-Jun-25	B	3.5	0	0	0.15	41	86	
CHARLES RIVER	MID-BASIN	008	30-Jun-25	S	0.1	0	0	0.03	0	0	
CHARLES RIVER	MID-BASIN	008	30-Jun-25	B	3.6	0	0	0.03	84	0	
CHARLES RIVER	MID-BASIN	008	21-Jul-25	S	0.1	0	0.2	0.2	364	4570	
CHARLES RIVER	MID-BASIN	008	21-Jul-25	B	3.4	0	0.2	0.2	520	4790	
CHARLES RIVER	MID-BASIN	008	11-Aug-25	S	0.1	0	0	0	0	0	
CHARLES RIVER	MID-BASIN	008	11-Aug-25	B	4.4	0	0	0	0	0	
CHARLES RIVER	MID-BASIN	008	15-Aug-25	S	0.1	0	0.24	0.24	20	528	
CHARLES RIVER	MID-BASIN	008	15-Aug-25	B	4	0	0.24	0.24	228	2990	
CHARLES RIVER	MID-BASIN	008	05-Sep-25	B	3.8	0.08	0.08	0.08	10	10	
CHARLES RIVER	MID-BASIN	008	05-Sep-25	S	0.1	0.08	0.08	0.08	0	10	
CHARLES RIVER	MID-BASIN	008	12-Sep-25	B	4.2	0	0	0	0	63	
CHARLES RIVER	MID-BASIN	008	12-Sep-25	S	0.1	0	0	0	10	41	
CHARLES RIVER	MID-BASIN	008	16-Sep-25	S	0.1	0	0	0	0	20	
CHARLES RIVER	MID-BASIN	008	16-Sep-25	B	3.8	0	0	0	0	10	
CHARLES RIVER	MID-BASIN	008	19-Sep-25	B	3.8	0	0.11	0.12	0	31	
CHARLES RIVER	MID-BASIN	008	19-Sep-25	S	0.1	0	0.11	0.12	20	213	
CHARLES RIVER	MID-BASIN	008	10-Oct-25	B	3.8	0	0	0.85	41	233	
CHARLES RIVER	MID-BASIN	008	10-Oct-25	S	0.1	0	0	0.85	31	697	
CHARLES RIVER	MID-BASIN	008	21-Oct-25	S	0.1	0	0.62	0.62	465	2600	
CHARLES RIVER	MID-BASIN	008	21-Oct-25	B	3.7	0	0.62	0.62	97	238	
CHARLES RIVER	MID-BASIN	008	24-Oct-25	B	4.2	0	0	0.41	63	399	
CHARLES RIVER	MID-BASIN	008	24-Oct-25	S	0.1	0	0	0.41	63	313	
CHARLES RIVER	MID-BASIN	008	07-Nov-25	B	3.4	0.01	0.01	0.03	10	132	
CHARLES RIVER	MID-BASIN	008	07-Nov-25	S	0.1	0.01	0.01	0.03	20	84	
CHARLES RIVER	MID-BASIN	009	04-Apr-25	S	0.1	0	0.19	0.26	63	41	
CHARLES RIVER	MID-BASIN	009	04-Apr-25	B	8.9	0	0.19	0.26	0	10	

Region	Subregion	Station	Day/Time(EST)	Surface/Bottom	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)
CHARLES RIVER	MID-BASIN	009	16-Apr-25	B	8.4	0	0.08	0.08	0	0	
CHARLES RIVER	MID-BASIN	009	16-Apr-25	S	0.1	0	0.08	0.08	10	218	
CHARLES RIVER	MID-BASIN	009	29-Apr-25	S	0.1	0	0	0	0	52	
CHARLES RIVER	MID-BASIN	009	29-Apr-25	B	8.3	0	0	0	0	10	
CHARLES RIVER	MID-BASIN	009	05-May-25	B	8.8	0.75	0.84	0.89	0	63	
CHARLES RIVER	MID-BASIN	009	05-May-25	S	0.1	0.75	0.84	0.89	0	134	
CHARLES RIVER	MID-BASIN	009	09-May-25	B	8.3	1.09	1.09	1.11	0	31	
CHARLES RIVER	MID-BASIN	009	09-May-25	S	0.1	1.09	1.09	1.11	20	85	
CHARLES RIVER	MID-BASIN	009	14-May-25	B	8.5	0	0	0	0	10	
CHARLES RIVER	MID-BASIN	009	14-May-25	S	0.1	0	0	0	20	41	
CHARLES RIVER	MID-BASIN	009	02-Jun-25	B	8.9	0	0	0.21	0	20	
CHARLES RIVER	MID-BASIN	009	02-Jun-25	S	0.1	0	0	0.21	30	63	
CHARLES RIVER	MID-BASIN	009	06-Jun-25	B	8.8	0	0	0	0	20	
CHARLES RIVER	MID-BASIN	009	06-Jun-25	S	0.1	0	0	0	10	10	
CHARLES RIVER	MID-BASIN	009	12-Jun-25	B	8.8	0	0	0.15	0	63	
CHARLES RIVER	MID-BASIN	009	12-Jun-25	S	0.1	0	0	0.15	0	160	
CHARLES RIVER	MID-BASIN	009	30-Jun-25	S	0.1	0	0	0.03	31	0	
CHARLES RIVER	MID-BASIN	009	30-Jun-25	B	8.9	0	0	0.03	20	10	
CHARLES RIVER	MID-BASIN	009	10-Jul-25	S	0.1	1.33	1.68	1.74	75	63	
CHARLES RIVER	MID-BASIN	009	11-Jul-25	S	0.1	0	1.33	1.68	199	145	
CHARLES RIVER	MID-BASIN	009	21-Jul-25	S	0.1	0	0.2	0.2	20	98	
CHARLES RIVER	MID-BASIN	009	21-Jul-25	B	8.6	0	0.2	0.2	0	31	
CHARLES RIVER	MID-BASIN	009	11-Aug-25	S	0.1	0	0	0	0	0	
CHARLES RIVER	MID-BASIN	009	11-Aug-25	B	8.5	0	0	0	0	10	
CHARLES RIVER	MID-BASIN	009	15-Aug-25	B	9	0	0.24	0.24	0	41	
CHARLES RIVER	MID-BASIN	009	15-Aug-25	S	0.1	0	0.24	0.24	52	52	
CHARLES RIVER	MID-BASIN	009	05-Sep-25	B	8.9	0.08	0.08	0.08	0	0	
CHARLES RIVER	MID-BASIN	009	05-Sep-25	S	0.1	0.08	0.08	0.08	0	10	
CHARLES RIVER	MID-BASIN	009	12-Sep-25	B	8.5	0	0	0	0	10	
CHARLES RIVER	MID-BASIN	009	12-Sep-25	S	0.1	0	0	0	0	10	
CHARLES RIVER	MID-BASIN	009	16-Sep-25	B	9.2	0	0	0	0	0	
CHARLES RIVER	MID-BASIN	009	16-Sep-25	S	0.1	0	0	0	0	0	
CHARLES RIVER	MID-BASIN	009	19-Sep-25	B	7.3	0	0.11	0.12	10	10	
CHARLES RIVER	MID-BASIN	009	19-Sep-25	S	0.1	0	0.11	0.12	10	10	
CHARLES RIVER	MID-BASIN	009	10-Oct-25	S	0.1	0	0	0.85	0	512	
CHARLES RIVER	MID-BASIN	009	10-Oct-25	B	8.6	0	0	0.85	0	31	
CHARLES RIVER	MID-BASIN	009	21-Oct-25	B	8.8	0	0.62	0.62	0	52	
CHARLES RIVER	MID-BASIN	009	21-Oct-25	S	0.1	0	0.62	0.62	183	959	
CHARLES RIVER	MID-BASIN	009	24-Oct-25	B	8.9	0	0	0.41	0	20	
CHARLES RIVER	MID-BASIN	009	24-Oct-25	S	0.1	0	0	0.41	20	373	
CHARLES RIVER	MID-BASIN	009	07-Nov-25	S	0.1	0.01	0.01	0.03	0	31	
CHARLES RIVER	MID-BASIN	009	07-Nov-25	B	8.9	0.01	0.01	0.03	0	31	
CHARLES RIVER	MID-BASIN	010	04-Apr-25	B	8.7	0	0.19	0.26	0	20	
CHARLES RIVER	MID-BASIN	010	04-Apr-25	S	0.1	0	0.19	0.26	10	98	
CHARLES RIVER	MID-BASIN	010	16-Apr-25	B	9.1	0	0.08	0.08	0	10	
CHARLES RIVER	MID-BASIN	010	16-Apr-25	S	0.1	0	0.08	0.08	10	85	
CHARLES RIVER	MID-BASIN	010	29-Apr-25	S	0.1	0	0	0	0	31	
CHARLES RIVER	MID-BASIN	010	29-Apr-25	B	9.3	0	0	0	0	20	
CHARLES RIVER	MID-BASIN	010	05-May-25	B	9.6	0.75	0.84	0.89	0	0	
CHARLES RIVER	MID-BASIN	010	05-May-25	S	0.1	0.75	0.84	0.89	30	201	
CHARLES RIVER	MID-BASIN	010	09-May-25	B	9.3	1.09	1.09	1.11	10	0	
CHARLES RIVER	MID-BASIN	010	09-May-25	S	0.1	1.09	1.09	1.11	63	175	
CHARLES RIVER	MID-BASIN	010	14-May-25	S	0.1	0	0	0	20	75	
CHARLES RIVER	MID-BASIN	010	14-May-25	B	9	0	0	0	0	10	
CHARLES RIVER	MID-BASIN	010	02-Jun-25	B	9.2	0	0	0.21	0	31	
CHARLES RIVER	MID-BASIN	010	02-Jun-25	S	0.1	0	0	0.21	0	31	
CHARLES RIVER	MID-BASIN	010	06-Jun-25	B	9	0	0	0	0	0	
CHARLES RIVER	MID-BASIN	010	06-Jun-25	S	0.1	0	0	0	20	41	
CHARLES RIVER	MID-BASIN	010	12-Jun-25	B	8.9	0	0	0.15	0	85	
CHARLES RIVER	MID-BASIN	010	12-Jun-25	S	0.1	0	0	0.15	10	121	

Region	Subregion	Station	Day/Time(EST)	Surface/Bottom	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)
CHARLES RIVER	MID-BASIN	010	30-Jun-25	B	9	0	0	0.03	10	0	
CHARLES RIVER	MID-BASIN	010	30-Jun-25	S	0.1	0	0	0.03	0	0	
CHARLES RIVER	MID-BASIN	010	21-Jul-25	S	0.1	0	0.2	0.2	0	10	
CHARLES RIVER	MID-BASIN	010	21-Jul-25	B	9	0	0.2	0.2	41	20	
CHARLES RIVER	MID-BASIN	010	11-Aug-25	S	0.1	0	0	0	0	10	
CHARLES RIVER	MID-BASIN	010	11-Aug-25	B	8.8	0	0	0	31	0	
CHARLES RIVER	MID-BASIN	010	15-Aug-25	S	0.1	0	0.24	0.24	31	10	
CHARLES RIVER	MID-BASIN	010	15-Aug-25	B	9.2	0	0.24	0.24	0	0	
CHARLES RIVER	MID-BASIN	010	05-Sep-25	S	0.1	0.08	0.08	0.08	0	0	
CHARLES RIVER	MID-BASIN	010	05-Sep-25	B	8.9	0.08	0.08	0.08	0	0	
CHARLES RIVER	MID-BASIN	010	12-Sep-25	S	0.1	0	0	0	10	20	
CHARLES RIVER	MID-BASIN	010	12-Sep-25	B	9	0	0	0	0	10	
CHARLES RIVER	MID-BASIN	010	16-Sep-25	S	0.1	0	0	0	0	0	
CHARLES RIVER	MID-BASIN	010	16-Sep-25	B	9.2	0	0	0	10	30	
CHARLES RIVER	MID-BASIN	010	19-Sep-25	B	9.5	0	0.11	0.12	10	10	
CHARLES RIVER	MID-BASIN	010	19-Sep-25	S	0.1	0	0.11	0.12	0	41	
CHARLES RIVER	MID-BASIN	010	10-Oct-25	B	8.6	0	0	0.85	31	10	
CHARLES RIVER	MID-BASIN	010	10-Oct-25	S	0.1	0	0	0.85	10	52	
CHARLES RIVER	MID-BASIN	010	21-Oct-25	B	9.3	0	0.62	0.62	0	20	
CHARLES RIVER	MID-BASIN	010	21-Oct-25	S	0.1	0	0.62	0.62	161	495	
CHARLES RIVER	MID-BASIN	010	24-Oct-25	B	8.9	0	0	0.41	10	20	
CHARLES RIVER	MID-BASIN	010	24-Oct-25	S	0.1	0	0	0.41	20	383	
CHARLES RIVER	MID-BASIN	010	07-Nov-25	B	9.2	0.01	0.01	0.03	0	0	
CHARLES RIVER	MID-BASIN	010	07-Nov-25	S	0.1	0.01	0.01	0.03	0	97	
CHARLES RIVER	MID-BASIN	210	04-Apr-25	S	0.1	0	0.19	0.26	31	74	
CHARLES RIVER	MID-BASIN	210	16-Apr-25	S	0.1	0	0.08	0.08	0	31	
CHARLES RIVER	MID-BASIN	210	29-Apr-25	S	0.1	0	0	0	0	75	
CHARLES RIVER	MID-BASIN	210	05-May-25	S	0.1	0.75	0.84	0.89	20	156	
CHARLES RIVER	MID-BASIN	210	09-May-25	S	0.1	1.09	1.09	1.11	30	146	
CHARLES RIVER	MID-BASIN	210	14-May-25	S	0.1	0	0	0	10	110	
CHARLES RIVER	MID-BASIN	210	02-Jun-25	S	0.1	0	0	0.21	20	31	
CHARLES RIVER	MID-BASIN	210	06-Jun-25	S	0.1	0	0	0	0	20	
CHARLES RIVER	MID-BASIN	210	12-Jun-25	S	0.1	0	0	0.15	20	85	
CHARLES RIVER	MID-BASIN	210	30-Jun-25	S	0.1	0	0	0.03	0	0	
CHARLES RIVER	MID-BASIN	210	21-Jul-25	S	0.1	0	0.2	0.2	0	10	
CHARLES RIVER	MID-BASIN	210	11-Aug-25	S	0.1	0	0	0	20	0	
CHARLES RIVER	MID-BASIN	210	15-Aug-25	S	0.1	0	0.24	0.24	30	41	
CHARLES RIVER	MID-BASIN	210	05-Sep-25	S	0.1	0.08	0.08	0.08	31	20	
CHARLES RIVER	MID-BASIN	210	12-Sep-25	S	0.1	0	0	0	10	52	
CHARLES RIVER	MID-BASIN	210	16-Sep-25	S	0.1	0	0	0	0	10	
CHARLES RIVER	MID-BASIN	210	19-Sep-25	S	0.1	0	0.11	0.12	0	0	
CHARLES RIVER	MID-BASIN	210	10-Oct-25	S	0.1	0	0	0.85	10	161	
CHARLES RIVER	MID-BASIN	210	21-Oct-25	S	0.1	0	0.62	0.62	41	288	
CHARLES RIVER	MID-BASIN	210	24-Oct-25	S	0.1	0	0	0.41	31	243	
CHARLES RIVER	MID-BASIN	210	07-Nov-25	S	0.1	0.01	0.01	0.03	20	110	
CHARLES RIVER	LOWER BASIN	166	04-Feb-25	S	0.1	0	0.05	0.15	10	52	
CHARLES RIVER	LOWER BASIN	166	03-Mar-25	S	0.1	0	0	0	20	187	
CHARLES RIVER	LOWER BASIN	166	20-Mar-25	S	0.1	0	0	0	41	364	
CHARLES RIVER	LOWER BASIN	166	31-Mar-25	S	0.1	0.23	0.25	0.29	10	63	
CHARLES RIVER	LOWER BASIN	166	14-Apr-25	S	0.1	0	0.08	0.45	10	41	
CHARLES RIVER	LOWER BASIN	166	28-Apr-25	S	0.1	0	0	0.55	10	144	
CHARLES RIVER	LOWER BASIN	166	15-May-25	S	0.1	0.35	0.35	0.35	0	52	
CHARLES RIVER	LOWER BASIN	166	28-May-25	S	0.1	0	0	0	10	63	
CHARLES RIVER	LOWER BASIN	166	09-Jun-25	S	0.1	0.01	0.01	1.05	97	627	
CHARLES RIVER	LOWER BASIN	166	27-Jun-25	S	0.1	0	0	0	5	30.5	
CHARLES RIVER	LOWER BASIN	166	07-Jul-25	S	0.1	0	0	0	20.5	10	
CHARLES RIVER	LOWER BASIN	166	25-Jul-25	S	0.1	0.1	0.1	0.1	110	20	
CHARLES RIVER	LOWER BASIN	166	08-Aug-25	S	0.1	0	0	0	20	0	
CHARLES RIVER	LOWER BASIN	166	18-Aug-25	S	0.1	0	0	0	36	25.5	
CHARLES RIVER	LOWER BASIN	166	02-Sep-25	S	0.1	0	0	0	10	20	

Region	Subregion	Station	Day/Time(EST)	Surface/Bottom	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)
CHARLES RIVER	LOWER BASIN	166	15-Sep-25	S	0.1	0	0	0	0	0	
CHARLES RIVER	LOWER BASIN	166	02-Oct-25	S	0.1	0	0	0	0	5	
CHARLES RIVER	LOWER BASIN	166	14-Oct-25	S	0.1	0.3	1.97	2.42	20	85	
CHARLES RIVER	LOWER BASIN	166	29-Oct-25	S	0.1	0	0	0	20	85	
CHARLES RIVER	LOWER BASIN	166	13-Nov-25	S	0.1	0.01	0.01	0.01	41	63	
CHARLES RIVER	LOWER BASIN	166	24-Nov-25	S	0.1	0	0	0.1	25.5	315.5	
CHARLES RIVER	LOWER BASIN	166	22-Dec-25	S	0.1	0	0	0	20	109	
CHARLES RIVER	LOWER BASIN	011	04-Apr-25	B	6.4	0	0.19	0.26	0	41	
CHARLES RIVER	LOWER BASIN	011	04-Apr-25	S	0.1	0	0.19	0.26	41	74	
CHARLES RIVER	LOWER BASIN	011	16-Apr-25	S	0.1	0	0.08	0.08	10	63	
CHARLES RIVER	LOWER BASIN	011	16-Apr-25	B	5.9	0	0.08	0.08	0	52	
CHARLES RIVER	LOWER BASIN	011	29-Apr-25	B	6.3	0	0	0	0	86	
CHARLES RIVER	LOWER BASIN	011	29-Apr-25	S	0.1	0	0	0	10	20	
CHARLES RIVER	LOWER BASIN	011	05-May-25	B	7	0.75	0.84	0.89	41	379	
CHARLES RIVER	LOWER BASIN	011	05-May-25	S	0.1	0.75	0.84	0.89	158	2140	
CHARLES RIVER	LOWER BASIN	011	09-May-25	B	5.7	1.09	1.09	1.11	31	98	
CHARLES RIVER	LOWER BASIN	011	09-May-25	S	0.1	1.09	1.09	1.11	10	98	
CHARLES RIVER	LOWER BASIN	011	14-May-25	S	0.1	0	0	0	0	63	
CHARLES RIVER	LOWER BASIN	011	14-May-25	B	6.2	0	0	0	20	74	
CHARLES RIVER	LOWER BASIN	011	02-Jun-25	B	5	0	0	0.21	20	86	
CHARLES RIVER	LOWER BASIN	011	02-Jun-25	S	0.1	0	0	0.21	10	52	
CHARLES RIVER	LOWER BASIN	011	06-Jun-25	B	5.6	0	0	0	0	0	
CHARLES RIVER	LOWER BASIN	011	06-Jun-25	S	0.1	0	0	0	10	63	
CHARLES RIVER	LOWER BASIN	011	12-Jun-25	B	3.1	0	0	0.15	10	243	
CHARLES RIVER	LOWER BASIN	011	12-Jun-25	S	0.1	0	0	0.15	20	201	
CHARLES RIVER	LOWER BASIN	011	30-Jun-25	B	6	0	0	0.03	41	52	
CHARLES RIVER	LOWER BASIN	011	30-Jun-25	S	0.1	0	0	0.03	10	20	
CHARLES RIVER	LOWER BASIN	011	21-Jul-25	S	0.1	0	0.2	0.2	10	0	
CHARLES RIVER	LOWER BASIN	011	21-Jul-25	B	4.9	0	0.2	0.2	169	520	
CHARLES RIVER	LOWER BASIN	011	11-Aug-25	S	0.1	0	0	0	0	0	
CHARLES RIVER	LOWER BASIN	011	11-Aug-25	B	5.7	0	0	0	51	30	
CHARLES RIVER	LOWER BASIN	011	15-Aug-25	B	5.7	0	0.24	0.24	98	187	
CHARLES RIVER	LOWER BASIN	011	15-Aug-25	S	0.1	0	0.24	0.24	31	1620	
CHARLES RIVER	LOWER BASIN	011	05-Sep-25	B	5.2	0.08	0.08	0.08	20	20	
CHARLES RIVER	LOWER BASIN	011	05-Sep-25	S	0.1	0.08	0.08	0.08	20	0	
CHARLES RIVER	LOWER BASIN	011	12-Sep-25	B	5.7	0	0	0	20	20	
CHARLES RIVER	LOWER BASIN	011	12-Sep-25	S	0.1	0	0	0	0	20	
CHARLES RIVER	LOWER BASIN	011	16-Sep-25	B	5.7	0	0	0	0	0	
CHARLES RIVER	LOWER BASIN	011	16-Sep-25	S	0.1	0	0	0	20	10	
CHARLES RIVER	LOWER BASIN	011	19-Sep-25	B	5.5	0	0.11	0.12	10	75	
CHARLES RIVER	LOWER BASIN	011	19-Sep-25	S	0.1	0	0.11	0.12	10	10	
CHARLES RIVER	LOWER BASIN	011	10-Oct-25	B	4.7	0	0	0.85	20	31	
CHARLES RIVER	LOWER BASIN	011	10-Oct-25	S	0.1	0	0	0.85	0	20	
CHARLES RIVER	LOWER BASIN	011	21-Oct-25	B	4.7	0	0.62	0.62	30	20	
CHARLES RIVER	LOWER BASIN	011	21-Oct-25	S	0.1	0	0.62	0.62	20	110	
CHARLES RIVER	LOWER BASIN	011	24-Oct-25	B	5.7	0	0	0.41	41	96	
CHARLES RIVER	LOWER BASIN	011	24-Oct-25	S	0.1	0	0	0.41	0	272	
CHARLES RIVER	LOWER BASIN	011	07-Nov-25	S	0.1	0.01	0.01	0.03	20	41	
CHARLES RIVER	LOWER BASIN	011	07-Nov-25	B	4.7	0.01	0.01	0.03	10	86	
MYSTIC/ALEWIFE	ALEWIFE BROOK	174	09-Apr-25	S	0.1	0	0.12	0.25	10	10	
MYSTIC/ALEWIFE	ALEWIFE BROOK	174	17-Apr-25	S	0.1	0	0	0.08	10	0	
MYSTIC/ALEWIFE	ALEWIFE BROOK	174	30-Apr-25	S	0.1	0	0	0	85	187	
MYSTIC/ALEWIFE	ALEWIFE BROOK	174	13-May-25	S	0.1	0	0	0	86	259	
MYSTIC/ALEWIFE	ALEWIFE BROOK	174	03-Jun-25	S	0.1	0	0	0	97	882	
MYSTIC/ALEWIFE	ALEWIFE BROOK	174	11-Jun-25	S	0.1	0	0.15	0.16	201	520	
MYSTIC/ALEWIFE	ALEWIFE BROOK	174	18-Jun-25	S	0.1	0	0.05	0.05	364	146	
MYSTIC/ALEWIFE	ALEWIFE BROOK	174	26-Jun-25	S	0.1	0	0	0	987	1190	
MYSTIC/ALEWIFE	ALEWIFE BROOK	174	14-Jul-25	S	0.1	0	0	0	480		
MYSTIC/ALEWIFE	ALEWIFE BROOK	174	22-Jul-25	S	0.1	0	0	0.2	331	1050	
MYSTIC/ALEWIFE	ALEWIFE BROOK	174	24-Jul-25	S	0.1	0	0	0	30	131	

Region	Subregion	Station	Day/Time(EST)	Surface/Bottom	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)
MYSTIC/ALEWIFE	ALEWIFE BROOK	174	07-Aug-25	S	0.1	0	0	0	86	171	
MYSTIC/ALEWIFE	ALEWIFE BROOK	174	14-Aug-25	S	0.1	0.24	0.24	0.24	62	464	
MYSTIC/ALEWIFE	ALEWIFE BROOK	174	21-Aug-25	S	0.1	0	0.24	0.24	173	422	
MYSTIC/ALEWIFE	ALEWIFE BROOK	174	10-Sep-25	S	0.1	0	0	0	52	315	
MYSTIC/ALEWIFE	ALEWIFE BROOK	174	18-Sep-25	S	0.1	0.11	0.12	0.12	121	420	
MYSTIC/ALEWIFE	ALEWIFE BROOK	174	24-Sep-25	S	0.1	0.11	0.11	0.11	41	75	
MYSTIC/ALEWIFE	ALEWIFE BROOK	174	01-Oct-25	S	0.1	0	0	0	122	97	
MYSTIC/ALEWIFE	ALEWIFE BROOK	174	08-Oct-25	S	0.1	0.85	0.85	0.85	50400	153000	
MYSTIC/ALEWIFE	ALEWIFE BROOK	174	09-Oct-25	S	0.1	0	0.85	0.85	3280	14100	
MYSTIC/ALEWIFE	ALEWIFE BROOK	174	16-Oct-25	S	0.1	0	0	0.3	156	404	
MYSTIC/ALEWIFE	ALEWIFE BROOK	174	23-Oct-25	S	0.1	0	0.41	0.41	410	1080	
MYSTIC/ALEWIFE	ALEWIFE BROOK	074	09-Apr-25	S	0.1	0	0.12	0.25	0	108	
MYSTIC/ALEWIFE	ALEWIFE BROOK	074	17-Apr-25	S	0.1	0	0	0.08	0	31	
MYSTIC/ALEWIFE	ALEWIFE BROOK	074	30-Apr-25	S	0.1	0	0	0	31	279	
MYSTIC/ALEWIFE	ALEWIFE BROOK	074	13-May-25	S	0.1	0	0	0	52	211	
MYSTIC/ALEWIFE	ALEWIFE BROOK	074	03-Jun-25	S	0.1	0	0	0	75	908	
MYSTIC/ALEWIFE	ALEWIFE BROOK	074	11-Jun-25	S	0.1	0	0.15	0.16	63	487	
MYSTIC/ALEWIFE	ALEWIFE BROOK	074	18-Jun-25	S	0.1	0	0.05	0.05	247	529	
MYSTIC/ALEWIFE	ALEWIFE BROOK	074	26-Jun-25	S	0.1	0	0	0	323	350	
MYSTIC/ALEWIFE	ALEWIFE BROOK	074	14-Jul-25	S	0.1	0	0	0	262		
MYSTIC/ALEWIFE	ALEWIFE BROOK	074	22-Jul-25	S	0.1	0	0	0.2	620	1960	
MYSTIC/ALEWIFE	ALEWIFE BROOK	074	24-Jul-25	S	0.1	0	0	0	299	573	
MYSTIC/ALEWIFE	ALEWIFE BROOK	074	07-Aug-25	S	0.1	0	0	0	74	171	
MYSTIC/ALEWIFE	ALEWIFE BROOK	074	14-Aug-25	S	0.1	0.24	0.24	0.24	108	771	
MYSTIC/ALEWIFE	ALEWIFE BROOK	074	21-Aug-25	S	0.1	0	0.24	0.24	697		
MYSTIC/ALEWIFE	ALEWIFE BROOK	074	10-Sep-25	S	0.1	0	0	0	85	355	
MYSTIC/ALEWIFE	ALEWIFE BROOK	074	18-Sep-25	S	0.1	0.11	0.12	0.12	727	3450	
MYSTIC/ALEWIFE	ALEWIFE BROOK	074	24-Sep-25	S	0.1	0.11	0.11	0.11	583	3650	
MYSTIC/ALEWIFE	ALEWIFE BROOK	074	01-Oct-25	S	0.1	0	0	0	20	86	
MYSTIC/ALEWIFE	ALEWIFE BROOK	074	08-Oct-25	S	0.1	0.85	0.85	0.85	32300	53800	
MYSTIC/ALEWIFE	ALEWIFE BROOK	074	09-Oct-25	S	0.1	0	0.85	0.85	2310	13000	
MYSTIC/ALEWIFE	ALEWIFE BROOK	074	16-Oct-25	S	0.1	0	0	0.3	84	443	
MYSTIC/ALEWIFE	ALEWIFE BROOK	074	23-Oct-25	S	0.1	0	0.41	0.41	313	882	
MYSTIC/ALEWIFE	ALEWIFE BROOK	277	09-Apr-25	S	0.1	0	0.12	0.25	10	160	
MYSTIC/ALEWIFE	ALEWIFE BROOK	277	17-Apr-25	S	0.1	0	0	0.08	158	2610	
MYSTIC/ALEWIFE	ALEWIFE BROOK	277	30-Apr-25	S	0.1	0	0	0	10	135	
MYSTIC/ALEWIFE	ALEWIFE BROOK	277	13-May-25	S	0.1	0	0	0	107	350	
MYSTIC/ALEWIFE	ALEWIFE BROOK	277	03-Jun-25	S	0.1	0	0	0	199	857	
MYSTIC/ALEWIFE	ALEWIFE BROOK	277	11-Jun-25	S	0.1	0	0.15	0.16	52	201	
MYSTIC/ALEWIFE	ALEWIFE BROOK	277	18-Jun-25	S	0.1	0	0.05	0.05	160	422	
MYSTIC/ALEWIFE	ALEWIFE BROOK	277	26-Jun-25	S	0.1	0	0	0	109	233	
MYSTIC/ALEWIFE	ALEWIFE BROOK	277	14-Jul-25	S	0.1	0	0	0	882		
MYSTIC/ALEWIFE	ALEWIFE BROOK	277	22-Jul-25	S	0.1	0	0	0.2	557	1780	
MYSTIC/ALEWIFE	ALEWIFE BROOK	277	24-Jul-25	S	0.1	0	0	0	259	404	
MYSTIC/ALEWIFE	ALEWIFE BROOK	277	07-Aug-25	S	0.1	0	0	0	63	246	
MYSTIC/ALEWIFE	ALEWIFE BROOK	277	14-Aug-25	S	0.1	0.24	0.24	0.24	119	135	
MYSTIC/ALEWIFE	ALEWIFE BROOK	277	21-Aug-25	S	0.1	0	0.24	0.24	355	9210	
MYSTIC/ALEWIFE	ALEWIFE BROOK	277	10-Sep-25	S	0.1	0	0	0	144	262	
MYSTIC/ALEWIFE	ALEWIFE BROOK	277	18-Sep-25	S	0.1	0.11	0.12	0.12	473	2600	
MYSTIC/ALEWIFE	ALEWIFE BROOK	277	24-Sep-25	S	0.1	0.11	0.11	0.11	135	259	
MYSTIC/ALEWIFE	ALEWIFE BROOK	277	01-Oct-25	S	0.1	0	0	0	84	158	
MYSTIC/ALEWIFE	ALEWIFE BROOK	277	08-Oct-25	S	0.1	0.85	0.85	0.85	24200	57300	
MYSTIC/ALEWIFE	ALEWIFE BROOK	277	09-Oct-25	S	0.1	0	0.85	0.85	1970	13000	
MYSTIC/ALEWIFE	ALEWIFE BROOK	277	16-Oct-25	S	0.1	0	0	0.3	120	520	
MYSTIC/ALEWIFE	ALEWIFE BROOK	277	23-Oct-25	S	0.1	0	0.41	0.41	528	767	
MYSTIC/ALEWIFE	ALEWIFE BROOK	172	09-Apr-25	S	0.1	0	0.12	0.25	20	158	
MYSTIC/ALEWIFE	ALEWIFE BROOK	172	17-Apr-25	S	0.1	0	0	0.08	199	3280	
MYSTIC/ALEWIFE	ALEWIFE BROOK	172	30-Apr-25	S	0.1	0	0	0	41	265	
MYSTIC/ALEWIFE	ALEWIFE BROOK	172	13-May-25	S	0.1	0	0	0	97	496	
MYSTIC/ALEWIFE	ALEWIFE BROOK	172	03-Jun-25	S	0.1	0	0	0	201	1080	

Region	Subregion	Station	Day/Time(EST)	Surface/Bottom	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)
MYSTIC/ALEWIFE	ALEWIFE BROOK	172	11-Jun-25	S	0.1	0	0.15	0.16	86	86	
MYSTIC/ALEWIFE	ALEWIFE BROOK	172	18-Jun-25	S	0.1	0	0.05	0.05	110	350	
MYSTIC/ALEWIFE	ALEWIFE BROOK	172	26-Jun-25	S	0.1	0	0	0	121	428	
MYSTIC/ALEWIFE	ALEWIFE BROOK	172	14-Jul-25	S	0.1	0	0	0	355		
MYSTIC/ALEWIFE	ALEWIFE BROOK	172	22-Jul-25	S	0.1	0	0	0.2	487	2050	
MYSTIC/ALEWIFE	ALEWIFE BROOK	172	24-Jul-25	S	0.1	0	0	0	309	201	
MYSTIC/ALEWIFE	ALEWIFE BROOK	172	07-Aug-25	S	0.1	0	0	0	41	173	
MYSTIC/ALEWIFE	ALEWIFE BROOK	172	14-Aug-25	S	0.1	0.24	0.24	0.24	109	98	
MYSTIC/ALEWIFE	ALEWIFE BROOK	172	21-Aug-25	S	0.1	0	0.24	0.24	459	8160	
MYSTIC/ALEWIFE	ALEWIFE BROOK	172	10-Sep-25	S	0.1	0	0	0	132	393	
MYSTIC/ALEWIFE	ALEWIFE BROOK	172	18-Sep-25	S	0.1	0.11	0.12	0.12	379	1850	
MYSTIC/ALEWIFE	ALEWIFE BROOK	172	24-Sep-25	S	0.1	0.11	0.11	0.11	41	120	
MYSTIC/ALEWIFE	ALEWIFE BROOK	172	01-Oct-25	S	0.1	0	0	0	52	73	
MYSTIC/ALEWIFE	ALEWIFE BROOK	172	08-Oct-25	S	0.1	0.85	0.85	0.85	37300	49600	
MYSTIC/ALEWIFE	ALEWIFE BROOK	172	09-Oct-25	S	0.1	0	0.85	0.85	4610	10500	
MYSTIC/ALEWIFE	ALEWIFE BROOK	172	16-Oct-25	S	0.1	0	0	0.3	121	471	
MYSTIC/ALEWIFE	ALEWIFE BROOK	172	23-Oct-25	S	0.1	0	0.41	0.41	345	860	
MYSTIC/ALEWIFE	ALEWIFE BROOK	276	09-Apr-25	S	0.1	0	0.12	0.25	41	259	
MYSTIC/ALEWIFE	ALEWIFE BROOK	276	17-Apr-25	S	0.1	0	0	0.08	120	3080	
MYSTIC/ALEWIFE	ALEWIFE BROOK	276	30-Apr-25	S	0.1	0	0	0	30	187	
MYSTIC/ALEWIFE	ALEWIFE BROOK	276	13-May-25	S	0.1	0	0	0	41	355	
MYSTIC/ALEWIFE	ALEWIFE BROOK	276	03-Jun-25	S	0.1	0	0	0	197	1090	
MYSTIC/ALEWIFE	ALEWIFE BROOK	276	11-Jun-25	S	0.1	0	0.15	0.16	63	185	
MYSTIC/ALEWIFE	ALEWIFE BROOK	276	18-Jun-25	S	0.1	0	0.05	0.05	63	199	
MYSTIC/ALEWIFE	ALEWIFE BROOK	276	26-Jun-25	S	0.1	0	0	0	109	243	
MYSTIC/ALEWIFE	ALEWIFE BROOK	276	14-Jul-25	S	0.1	0	0	0	393		
MYSTIC/ALEWIFE	ALEWIFE BROOK	276	22-Jul-25	S	0.1	0	0	0.2	512	1940	
MYSTIC/ALEWIFE	ALEWIFE BROOK	276	24-Jul-25	S	0.1	0	0	0	295	108	
MYSTIC/ALEWIFE	ALEWIFE BROOK	276	07-Aug-25	S	0.1	0	0	0	41	175	
MYSTIC/ALEWIFE	ALEWIFE BROOK	276	14-Aug-25	S	0.1	0.24	0.24	0.24	256	120	
MYSTIC/ALEWIFE	ALEWIFE BROOK	276	21-Aug-25	S	0.1	0	0.24	0.24	487	8660	
MYSTIC/ALEWIFE	ALEWIFE BROOK	276	10-Sep-25	S	0.1	0	0	0	121	305	
MYSTIC/ALEWIFE	ALEWIFE BROOK	276	18-Sep-25	S	0.1	0.11	0.12	0.12	359	1560	
MYSTIC/ALEWIFE	ALEWIFE BROOK	276	24-Sep-25	S	0.1	0.11	0.11	0.11	134	97	
MYSTIC/ALEWIFE	ALEWIFE BROOK	276	01-Oct-25	S	0.1	0	0	0	84	31	
MYSTIC/ALEWIFE	ALEWIFE BROOK	276	08-Oct-25	S	0.1	0.85	0.85	0.85	10500	58300	
MYSTIC/ALEWIFE	ALEWIFE BROOK	276	09-Oct-25	S	0.1	0	0.85	0.85	2480	17300	
MYSTIC/ALEWIFE	ALEWIFE BROOK	276	16-Oct-25	S	0.1	0	0	0.3	145	350	
MYSTIC/ALEWIFE	ALEWIFE BROOK	276	23-Oct-25	S	0.1	0	0.41	0.41	428	663	
MYSTIC/ALEWIFE	ALEWIFE BROOK	070	09-Apr-25	S	0.1	0	0.12	0.25	148	565	
MYSTIC/ALEWIFE	ALEWIFE BROOK	070	17-Apr-25	S	0.1	0	0	0.08	10	98	
MYSTIC/ALEWIFE	ALEWIFE BROOK	070	30-Apr-25	S	0.1	0	0	0	63	187	
MYSTIC/ALEWIFE	ALEWIFE BROOK	070	13-May-25	S	0.1	0	0	0	86	399	
MYSTIC/ALEWIFE	ALEWIFE BROOK	070	03-Jun-25	S	0.1	0	0	0	473	389	
MYSTIC/ALEWIFE	ALEWIFE BROOK	070	11-Jun-25	S	0.1	0	0.15	0.16	231	318	
MYSTIC/ALEWIFE	ALEWIFE BROOK	070	18-Jun-25	S	0.1	0	0.05	0.05	161	627	
MYSTIC/ALEWIFE	ALEWIFE BROOK	070	26-Jun-25	S	0.1	0	0	0	609	495	
MYSTIC/ALEWIFE	ALEWIFE BROOK	070	14-Jul-25	S	0.1	0	0	0	399		
MYSTIC/ALEWIFE	ALEWIFE BROOK	070	22-Jul-25	S	0.1	0	0	0.2	496	2910	
MYSTIC/ALEWIFE	ALEWIFE BROOK	070	24-Jul-25	S	0.1	0	0	0	529	350	
MYSTIC/ALEWIFE	ALEWIFE BROOK	070	07-Aug-25	S	0.1	0	0	0	171	175	
MYSTIC/ALEWIFE	ALEWIFE BROOK	070	14-Aug-25	S	0.1	0.24	0.24	0.24	160	187	
MYSTIC/ALEWIFE	ALEWIFE BROOK	070	21-Aug-25	S	0.1	0	0.24	0.24	1180	1020	
MYSTIC/ALEWIFE	ALEWIFE BROOK	070	10-Sep-25	S	0.1	0	0	0	122	211	
MYSTIC/ALEWIFE	ALEWIFE BROOK	070	18-Sep-25	S	0.1	0.11	0.12	0.12	4610	8860	
MYSTIC/ALEWIFE	ALEWIFE BROOK	070	24-Sep-25	S	0.1	0.11	0.11	0.11	223	388	
MYSTIC/ALEWIFE	ALEWIFE BROOK	070	01-Oct-25	S	0.1	0	0	0	226	318	
MYSTIC/ALEWIFE	ALEWIFE BROOK	070	08-Oct-25	S	0.1	0.85	0.85	0.85	24200	35000	
MYSTIC/ALEWIFE	ALEWIFE BROOK	070	09-Oct-25	S	0.1	0	0.85	0.85	3780	24200	
MYSTIC/ALEWIFE	ALEWIFE BROOK	070	16-Oct-25	S	0.1	0	0	0.3	146	292	

Region	Subregion	Station	Day/Time(EST)	Surface/Bottom	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)
MYSTIC/ALEWIFE	ALEWIFE BROOK	070	23-Oct-25	S	0.1	0	0.41	0.41	933	1230	
MYSTIC/ALEWIFE	UPPER MYSTIC	083	08-Jan-25	S	0.1	0	0	0	657	504	
MYSTIC/ALEWIFE	UPPER MYSTIC	083	04-Feb-25	S	0.1	0	0.05	0.15	105	428	
MYSTIC/ALEWIFE	UPPER MYSTIC	083	20-Feb-25	S	0.1	0	0	0	668	789	
MYSTIC/ALEWIFE	UPPER MYSTIC	083	20-Mar-25	S	0.1	0	0	0	31	108	
MYSTIC/ALEWIFE	UPPER MYSTIC	083	31-Mar-25	S	0.1	0.23	0.25	0.29	10	0	
MYSTIC/ALEWIFE	UPPER MYSTIC	083	09-Apr-25	S	0.1	0	0.12	0.25	10	41	
MYSTIC/ALEWIFE	UPPER MYSTIC	083	14-Apr-25	S	0.1	0	0.08	0.45	0	0	
MYSTIC/ALEWIFE	UPPER MYSTIC	083	17-Apr-25	S	0.1	0	0	0.08	0	0	
MYSTIC/ALEWIFE	UPPER MYSTIC	083	28-Apr-25	S	0.1	0	0	0.55	20	10	
MYSTIC/ALEWIFE	UPPER MYSTIC	083	30-Apr-25	S	0.1	0	0	0	0	31	
MYSTIC/ALEWIFE	UPPER MYSTIC	083	13-May-25	S	0.1	0	0	0	20	121	
MYSTIC/ALEWIFE	UPPER MYSTIC	083	15-May-25	S	0.1	0.35	0.35	0.35	158	189	
MYSTIC/ALEWIFE	UPPER MYSTIC	083	28-May-25	S	0.1	0	0	0	30	10	
MYSTIC/ALEWIFE	UPPER MYSTIC	083	03-Jun-25	S	0.1	0	0	0	10	63	
MYSTIC/ALEWIFE	UPPER MYSTIC	083	09-Jun-25	S	0.1	0.01	0.01	1.05	272	1400	
MYSTIC/ALEWIFE	UPPER MYSTIC	083	11-Jun-25	S	0.1	0	0.15	0.16	52	41	
MYSTIC/ALEWIFE	UPPER MYSTIC	083	18-Jun-25	S	0.1	0	0.05	0.05	0	31	
MYSTIC/ALEWIFE	UPPER MYSTIC	083	26-Jun-25	S	0.1	0	0	0	41	86	
MYSTIC/ALEWIFE	UPPER MYSTIC	083	27-Jun-25	S	0.1	0	0	0	20	30	
MYSTIC/ALEWIFE	UPPER MYSTIC	083	07-Jul-25	S	0.1	0	0	0	30	362	
MYSTIC/ALEWIFE	UPPER MYSTIC	083	14-Jul-25	S	0.1	0	0	0	41		
MYSTIC/ALEWIFE	UPPER MYSTIC	083	22-Jul-25	S	0.1	0	0	0.2	41	86	
MYSTIC/ALEWIFE	UPPER MYSTIC	083	24-Jul-25	S	0.1	0	0	0	62	121	
MYSTIC/ALEWIFE	UPPER MYSTIC	083	25-Jul-25	S	0.1	0.1	0.1	0.1	52	63	
MYSTIC/ALEWIFE	UPPER MYSTIC	083	07-Aug-25	S	0.1	0	0	0	31	135	
MYSTIC/ALEWIFE	UPPER MYSTIC	083	08-Aug-25	S	0.1	0	0	0	10	189	
MYSTIC/ALEWIFE	UPPER MYSTIC	083	14-Aug-25	S	0.1	0.24	0.24	0.24	10	85	
MYSTIC/ALEWIFE	UPPER MYSTIC	083	18-Aug-25	S	0.1	0	0	0	10	96	
MYSTIC/ALEWIFE	UPPER MYSTIC	083	21-Aug-25	S	0.1	0	0.24	0.24	97	135	
MYSTIC/ALEWIFE	UPPER MYSTIC	083	02-Sep-25	S	0.1	0	0	0	132	108	
MYSTIC/ALEWIFE	UPPER MYSTIC	083	10-Sep-25	S	0.1	0	0	0	31	195	
MYSTIC/ALEWIFE	UPPER MYSTIC	083	15-Sep-25	S	0.1	0	0	0	10	108	
MYSTIC/ALEWIFE	UPPER MYSTIC	083	18-Sep-25	S	0.1	0.11	0.12	0.12	238	504	
MYSTIC/ALEWIFE	UPPER MYSTIC	083	24-Sep-25	S	0.1	0.11	0.11	0.11	63	122	
MYSTIC/ALEWIFE	UPPER MYSTIC	083	01-Oct-25	S	0.1	0	0	0	0	98	
MYSTIC/ALEWIFE	UPPER MYSTIC	083	02-Oct-25	S	0.1	0	0	0	41	175	
MYSTIC/ALEWIFE	UPPER MYSTIC	083	08-Oct-25	S	0.1	0.85	0.85	0.85	19900	13000	
MYSTIC/ALEWIFE	UPPER MYSTIC	083	09-Oct-25	S	0.1	0	0.85	0.85	253	573	
MYSTIC/ALEWIFE	UPPER MYSTIC	083	14-Oct-25	S	0.1	0.3	1.97	2.42	226	195	
MYSTIC/ALEWIFE	UPPER MYSTIC	083	16-Oct-25	S	0.1	0	0	0.3	122	86	
MYSTIC/ALEWIFE	UPPER MYSTIC	083	23-Oct-25	S	0.1	0	0.41	0.41	187	269	
MYSTIC/ALEWIFE	UPPER MYSTIC	083	29-Oct-25	S	0.1	0	0	0	259	563	
MYSTIC/ALEWIFE	UPPER MYSTIC	083	13-Nov-25	S	0.1	0.01	0.01	0.01	20	31	
MYSTIC/ALEWIFE	UPPER MYSTIC	083	24-Nov-25	S	0.1	0	0	0.1	0	10	
MYSTIC/ALEWIFE	UPPER MYSTIC	083	10-Dec-25	S	0.1	0.04	0.04	0.04	0	30	
MYSTIC/ALEWIFE	UPPER MYSTIC	083	22-Dec-25	S	0.1	0	0	0	10	41	
MYSTIC/ALEWIFE	UPPER MYSTIC	057	09-Apr-25	S	0.1	0	0.12	0.25	41	20	
MYSTIC/ALEWIFE	UPPER MYSTIC	057	17-Apr-25	S	0.1	0	0	0.08	0	10	
MYSTIC/ALEWIFE	UPPER MYSTIC	057	30-Apr-25	S	0.1	0	0	0	10	0	
MYSTIC/ALEWIFE	UPPER MYSTIC	057	13-May-25	S	0.1	0	0	0	10	62	
MYSTIC/ALEWIFE	UPPER MYSTIC	057	03-Jun-25	S	0.1	0	0	0	10	41	
MYSTIC/ALEWIFE	UPPER MYSTIC	057	11-Jun-25	S	0.1	0	0.15	0.16	51	97	
MYSTIC/ALEWIFE	UPPER MYSTIC	057	18-Jun-25	S	0.1	0	0.05	0.05	20	10	
MYSTIC/ALEWIFE	UPPER MYSTIC	057	26-Jun-25	S	0.1	0	0	0	52	31	
MYSTIC/ALEWIFE	UPPER MYSTIC	057	14-Jul-25	S	0.1	0	0	0	31		
MYSTIC/ALEWIFE	UPPER MYSTIC	057	22-Jul-25	S	0.1	0	0	0.2	41	256	
MYSTIC/ALEWIFE	UPPER MYSTIC	057	24-Jul-25	S	0.1	0	0	0	20	10	
MYSTIC/ALEWIFE	UPPER MYSTIC	057	07-Aug-25	S	0.1	0	0	0	0	109	
MYSTIC/ALEWIFE	UPPER MYSTIC	057	14-Aug-25	S	0.1	0.24	0.24	0.24	52	109	

Region	Subregion	Station	Day/Time(EST)	Surface/Bottom	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)
MYSTIC/ALEWIFE	UPPER MYSTIC	057	21-Aug-25	S	0.1	0	0.24	0.24	231	295	
MYSTIC/ALEWIFE	UPPER MYSTIC	057	10-Sep-25	S	0.1	0	0	0	31	110	
MYSTIC/ALEWIFE	UPPER MYSTIC	057	18-Sep-25	S	0.1	0.11	0.12	0.12	1990	6130	
MYSTIC/ALEWIFE	UPPER MYSTIC	057	24-Sep-25	S	0.1	0.11	0.11	0.11	20	187	
MYSTIC/ALEWIFE	UPPER MYSTIC	057	01-Oct-25	S	0.1	0	0	0	10	74	
MYSTIC/ALEWIFE	UPPER MYSTIC	057	08-Oct-25	S	0.1	0.85	0.85	0.85	43200	39900	
MYSTIC/ALEWIFE	UPPER MYSTIC	057	09-Oct-25	S	0.1	0	0.85	0.85	201	426	
MYSTIC/ALEWIFE	UPPER MYSTIC	057	16-Oct-25	S	0.1	0	0	0.3	52	121	
MYSTIC/ALEWIFE	UPPER MYSTIC	057	23-Oct-25	S	0.1	0	0.41	0.41	148	285	
MYSTIC/ALEWIFE	UPPER MYSTIC	066	08-Jan-25	S	0.1	0	0	0	98	134	
MYSTIC/ALEWIFE	UPPER MYSTIC	066	21-Jan-25	S	0.1	0	0.01	0.38	0	161	
MYSTIC/ALEWIFE	UPPER MYSTIC	066	04-Feb-25	S	0.1	0	0.05	0.15	52	345	
MYSTIC/ALEWIFE	UPPER MYSTIC	066	20-Feb-25	S	0.1	0	0	0	323	2190	
MYSTIC/ALEWIFE	UPPER MYSTIC	066	03-Mar-25	S	0.1	0	0	0	0	97	
MYSTIC/ALEWIFE	UPPER MYSTIC	066	20-Mar-25	S	0.1	0	0	0	41	1080	
MYSTIC/ALEWIFE	UPPER MYSTIC	066	31-Mar-25	S	0.1	0.23	0.25	0.29	20	85	
MYSTIC/ALEWIFE	UPPER MYSTIC	066	14-Apr-25	S	0.1	0	0.08	0.45	10	98	
MYSTIC/ALEWIFE	UPPER MYSTIC	066	28-Apr-25	S	0.1	0	0	0.55	10	75	
MYSTIC/ALEWIFE	UPPER MYSTIC	066	15-May-25	S	0.1	0.35	0.35	0.35	683	1020	
MYSTIC/ALEWIFE	UPPER MYSTIC	066	28-May-25	S	0.1	0	0	0	20	74	
MYSTIC/ALEWIFE	UPPER MYSTIC	066	09-Jun-25	S	0.1	0.01	0.01	1.05	309	839	
MYSTIC/ALEWIFE	UPPER MYSTIC	066	27-Jun-25	S	0.1	0	0	0	31	134	
MYSTIC/ALEWIFE	UPPER MYSTIC	066	07-Jul-25	S	0.1	0	0	0	41	397	
MYSTIC/ALEWIFE	UPPER MYSTIC	066	25-Jul-25	S	0.1	0.1	0.1	0.1	86	148	
MYSTIC/ALEWIFE	UPPER MYSTIC	066	08-Aug-25	S	0.1	0	0	0	10	98	
MYSTIC/ALEWIFE	UPPER MYSTIC	066	18-Aug-25	S	0.1	0	0	0	10	110	
MYSTIC/ALEWIFE	UPPER MYSTIC	066	02-Sep-25	S	0.1	0	0	0	108	208	
MYSTIC/ALEWIFE	UPPER MYSTIC	066	15-Sep-25	S	0.1	0	0	0	31	107	
MYSTIC/ALEWIFE	UPPER MYSTIC	066	02-Oct-25	S	0.1	0	0	0	41	148	
MYSTIC/ALEWIFE	UPPER MYSTIC	066	08-Oct-25	S	0.1	0.85	0.85	0.85	10500	13000	
MYSTIC/ALEWIFE	UPPER MYSTIC	066	14-Oct-25	S	0.1	0.3	1.97	2.42	443	388	
MYSTIC/ALEWIFE	UPPER MYSTIC	066	29-Oct-25	S	0.1	0	0	0	31	132	
MYSTIC/ALEWIFE	UPPER MYSTIC	066	13-Nov-25	S	0.1	0.01	0.01	0.01	52	86	
MYSTIC/ALEWIFE	UPPER MYSTIC	066	24-Nov-25	S	0.1	0	0	0.1	0	74	
MYSTIC/ALEWIFE	UPPER MYSTIC	066	10-Dec-25	S	0.1	0.04	0.04	0.04	52	292	
MYSTIC/ALEWIFE	UPPER MYSTIC	066	22-Dec-25	S	0.1	0	0	0	98	86	
MYSTIC/ALEWIFE	UPPER MYSTIC	056	09-Apr-25	S	0.1	0	0.12	0.25	0	63	
MYSTIC/ALEWIFE	UPPER MYSTIC	056	17-Apr-25	S	0.1	0	0	0.08	10	52	
MYSTIC/ALEWIFE	UPPER MYSTIC	056	30-Apr-25	S	0.1	0	0	0	20	132	
MYSTIC/ALEWIFE	UPPER MYSTIC	056	13-May-25	S	0.1	0	0	0	41	226	
MYSTIC/ALEWIFE	UPPER MYSTIC	056	03-Jun-25	S	0.1	0	0	0	41	189	
MYSTIC/ALEWIFE	UPPER MYSTIC	056	11-Jun-25	S	0.1	0	0.15	0.16	52	301	
MYSTIC/ALEWIFE	UPPER MYSTIC	056	18-Jun-25	S	0.1	0	0.05	0.05	41	272	
MYSTIC/ALEWIFE	UPPER MYSTIC	056	26-Jun-25	S	0.1	0	0	0	52	96	
MYSTIC/ALEWIFE	UPPER MYSTIC	056	22-Jul-25	S	0.1	0	0	0.2	41	1400	
MYSTIC/ALEWIFE	UPPER MYSTIC	056	24-Jul-25	S	0.1	0	0	0	63	201	
MYSTIC/ALEWIFE	UPPER MYSTIC	056	07-Aug-25	S	0.1	0	0	0	98	556	
MYSTIC/ALEWIFE	UPPER MYSTIC	056	14-Aug-25	S	0.1	0.24	0.24	0.24	187	31	
MYSTIC/ALEWIFE	UPPER MYSTIC	056	21-Aug-25	S	0.1	0	0.24	0.24	389	0	
MYSTIC/ALEWIFE	UPPER MYSTIC	056	10-Sep-25	S	0.1	0	0	0	20	185	
MYSTIC/ALEWIFE	UPPER MYSTIC	056	18-Sep-25	S	0.1	0.11	0.12	0.12	399	201	
MYSTIC/ALEWIFE	UPPER MYSTIC	056	24-Sep-25	S	0.1	0.11	0.11	0.11	110	249	
MYSTIC/ALEWIFE	UPPER MYSTIC	056	01-Oct-25	S	0.1	0	0	0	20	86	
MYSTIC/ALEWIFE	UPPER MYSTIC	056	09-Oct-25	S	0.1	0	0.85	0.85	1320	6130	
MYSTIC/ALEWIFE	UPPER MYSTIC	056	16-Oct-25	S	0.1	0	0	0.3	122	173	
MYSTIC/ALEWIFE	UPPER MYSTIC	056	23-Oct-25	S	0.1	0	0.41	0.41	336	292	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	177	08-Jan-25	S	0.1	0	0	0	41	109	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	177	04-Feb-25	S	0.1	0	0.05	0.15	10	480	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	177	03-Mar-25	S	0.1	0	0	0	10	345	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	177	20-Mar-25	S	0.1	0	0	0	30	135	

Region	Subregion	Station	Day/Time(EST)	Surface/Bottom	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)
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	177	31-Mar-25	S	0.1	0.23	0.25	0.29	52	203	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	177	14-Apr-25	S	0.1	0	0.08	0.45	30	173	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	177	28-Apr-25	S	0.1	0	0	0.55	41	185	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	177	15-May-25	S	0.1	0.35	0.35	0.35	86	292	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	177	28-May-25	S	0.1	0	0	0	10	275	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	177	09-Jun-25	S	0.1	0.01	0.01	1.05	269	620	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	177	27-Jun-25	S	0.1	0	0	0	30	75	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	177	07-Jul-25	S	0.1	0	0	0	0	467	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	177	25-Jul-25	S	0.1	0.1	0.1	0.1	25.5	64.5	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	177	08-Aug-25	S	0.1	0	0	0	10	41	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	177	18-Aug-25	S	0.1	0	0	0	31	74	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	177	02-Sep-25	S	0.1	0	0	0	10	41	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	177	15-Sep-25	S	0.1	0	0	0	0	86	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	177	02-Oct-25	S	0.1	0	0	0	20	41	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	177	14-Oct-25	S	0.1	0.3	1.97	2.42	7270	1450	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	177	29-Oct-25	S	0.1	0	0	0	20	109	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	177	13-Nov-25	S	0.1	0.01	0.01	0.01	20	216	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	177	24-Nov-25	S	0.1	0	0	0.1	41	331	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	177	10-Dec-25	S	0.1	0.04	0.04	0.04	0	62	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	177	22-Dec-25	S	0.1	0	0	0	63	145	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	067	09-Apr-25	S	0.1	0	0.12	0.25	0	52	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	067	17-Apr-25	S	0.1	0	0	0.08	0	30	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	067	30-Apr-25	S	0.1	0	0	0	30	31	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	067	13-May-25	S	0.1	0	0	0	0	213	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	067	03-Jun-25	S	0.1	0	0	0	0	10	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	067	11-Jun-25	S	0.1	0	0.15	0.16	20	145	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	067	18-Jun-25	S	0.1	0	0.05	0.05	10	31	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	067	26-Jun-25	S	0.1	0	0	0	20	63	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	067	14-Jul-25	S	0.1	0	0	0	20		
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	067	22-Jul-25	S	0.1	0	0	0.2	0	41	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	067	24-Jul-25	S	0.1	0	0	0	41	20	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	067	07-Aug-25	S	0.1	0	0	0	158	41	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	067	14-Aug-25	S	0.1	0.24	0.24	0.24	63	160	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	067	21-Aug-25	S	0.1	0	0.24	0.24	292	275	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	067	10-Sep-25	S	0.1	0	0	0	0	63	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	067	18-Sep-25	S	0.1	0.11	0.12	0.12	10	73	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	067	24-Sep-25	S	0.1	0.11	0.11	0.11	10	31	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	067	01-Oct-25	S	0.1	0	0	0	20	86	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	067	08-Oct-25	S	0.1	0.85	0.85	0.85	323	1110	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	067	09-Oct-25	S	0.1	0	0.85	0.85	847	4110	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	067	16-Oct-25	S	0.1	0	0	0.3	63	121	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	067	23-Oct-25	S	0.1	0	0.41	0.41	187	309	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	059	09-Apr-25	S	0.1	0	0.12	0.25	0	31	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	059	17-Apr-25	S	0.1	0	0	0.08	10	31	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	059	30-Apr-25	S	0.1	0	0	0	10	10	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	059	13-May-25	S	0.1	0	0	0	0	41	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	059	03-Jun-25	S	0.1	0	0	0	10	41	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	059	11-Jun-25	S	0.1	0	0.15	0.16	41	171	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	059	18-Jun-25	S	0.1	0	0.05	0.05	0	20	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	059	26-Jun-25	S	0.1	0	0	0	40	20	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	059	14-Jul-25	S	0.1	0	0	0	0		
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	059	22-Jul-25	S	0.1	0	0	0.2	0	20	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	059	24-Jul-25	S	0.1	0	0	0	10	0	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	059	07-Aug-25	S	0.1	0	0	0	20	52	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	059	14-Aug-25	S	0.1	0.24	0.24	0.24	52	20	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	059	21-Aug-25	S	0.1	0	0.24	0.24	20	85	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	059	10-Sep-25	S	0.1	0	0	0	20	63	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	059	18-Sep-25	S	0.1	0.11	0.12	0.12	0	41	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	059	24-Sep-25	S	0.1	0.11	0.11	0.11	0	20	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	059	01-Oct-25	S	0.1	0	0	0	0	108	

Region	Subregion	Station	Day/Time(EST)	Surface/Bottom	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)
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	059	09-Oct-25	S	0.1	0	0.85	0.85	708	4350	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	059	16-Oct-25	S	0.1	0	0	0.3	52	275	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	059	23-Oct-25	S	0.1	0	0.41	0.41	31	246	
MYSTIC/ALEWIFE	MALDEN RIVER	176	09-Apr-25	S	0.1	0	0.12	0.25	0	109	
MYSTIC/ALEWIFE	MALDEN RIVER	176	17-Apr-25	S	0.1	0	0	0.08	10	52	
MYSTIC/ALEWIFE	MALDEN RIVER	176	30-Apr-25	S	0.1	0	0	0	20	10	
MYSTIC/ALEWIFE	MALDEN RIVER	176	13-May-25	S	0.1	0	0	0	41	121	
MYSTIC/ALEWIFE	MALDEN RIVER	176	03-Jun-25	S	0.1	0	0	0	10	171	
MYSTIC/ALEWIFE	MALDEN RIVER	176	11-Jun-25	S	0.1	0	0.15	0.16	40	135	
MYSTIC/ALEWIFE	MALDEN RIVER	176	18-Jun-25	S	0.1	0	0.05	0.05	20	20	
MYSTIC/ALEWIFE	MALDEN RIVER	176	26-Jun-25	S	0.1	0	0	0	52	63	
MYSTIC/ALEWIFE	MALDEN RIVER	176	14-Jul-25	S	0.1	0	0	0	31		
MYSTIC/ALEWIFE	MALDEN RIVER	176	22-Jul-25	S	0.1	0	0	0.2	20	272	
MYSTIC/ALEWIFE	MALDEN RIVER	176	24-Jul-25	S	0.1	0	0	0	92	134	
MYSTIC/ALEWIFE	MALDEN RIVER	176	07-Aug-25	S	0.1	0	0	0	10	122	
MYSTIC/ALEWIFE	MALDEN RIVER	176	14-Aug-25	S	0.1	0.24	0.24	0.24	20	52	
MYSTIC/ALEWIFE	MALDEN RIVER	176	21-Aug-25	S	0.1	0	0.24	0.24	41	31	
MYSTIC/ALEWIFE	MALDEN RIVER	176	10-Sep-25	S	0.1	0	0	0	20	262	
MYSTIC/ALEWIFE	MALDEN RIVER	176	18-Sep-25	S	0.1	0.11	0.12	0.12	10	107	
MYSTIC/ALEWIFE	MALDEN RIVER	176	24-Sep-25	S	0.1	0.11	0.11	0.11	52	345	
MYSTIC/ALEWIFE	MALDEN RIVER	176	01-Oct-25	S	0.1	0	0	0	10	275	
MYSTIC/ALEWIFE	MALDEN RIVER	176	09-Oct-25	S	0.1	0	0.85	0.85	2010	19900	
MYSTIC/ALEWIFE	MALDEN RIVER	176	16-Oct-25	S	0.1	0	0	0.3	121	350	
MYSTIC/ALEWIFE	MALDEN RIVER	176	23-Oct-25	S	0.1	0	0.41	0.41	96	428	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	167	20-Mar-25	S	0.1	0	0	0	10	327	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	167	31-Mar-25	S	0.1	0.23	0.25	0.29	0	20	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	167	14-Apr-25	S	0.1	0	0.08	0.45	0	160	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	167	28-Apr-25	S	0.1	0	0	0.55	0	31	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	167	15-May-25	S	0.1	0.35	0.35	0.35	10	110	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	167	28-May-25	S	0.1	0	0	0	31	52	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	167	09-Jun-25	S	0.1	0.01	0.01	1.05	108	988	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	167	27-Jun-25	S	0.1	0	0	0	10	52	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	167	07-Jul-25	S	0.1	0	0	0	20	0	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	167	25-Jul-25	S	0.1	0.1	0.1	0.1	74	52	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	167	08-Aug-25	S	0.1	0	0	0	10	41	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	167	18-Aug-25	S	0.1	0	0	0	10	41	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	167	15-Sep-25	S	0.1	0	0	0	0	63	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	167	02-Oct-25	S	0.1	0	0	0	31	63	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	167	08-Oct-25	S	0.1	0.85	0.85	0.85	602	1940	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	167	29-Oct-25	S	0.1	0	0	0	86	132	
MYSTIC/ALEWIFE	LOWER MYSTIC BASIN	167	13-Nov-25	S	0.1	0.01	0.01	0.01	31	292	
MYSTIC/ALEWIFE	MYSTIC MOUTH	052	09-Apr-25	S	0.1	0	0.12	0.25	10		9.09
MYSTIC/ALEWIFE	MYSTIC MOUTH	052	09-Apr-25	B	3.3	0	0.12	0.25	10		0
MYSTIC/ALEWIFE	MYSTIC MOUTH	052	17-Apr-25	S	0.1	0	0	0.08	4110		3000
MYSTIC/ALEWIFE	MYSTIC MOUTH	052	30-Apr-25	S	0.1	0	0	0	63		36.4
MYSTIC/ALEWIFE	MYSTIC MOUTH	052	13-May-25	S	0.1	0	0	0	1720		11100
MYSTIC/ALEWIFE	MYSTIC MOUTH	052	03-Jun-25	S	0.1	0	0	0	20		136
MYSTIC/ALEWIFE	MYSTIC MOUTH	052	11-Jun-25	B	3.1	0	0.15	0.16	10		330
MYSTIC/ALEWIFE	MYSTIC MOUTH	052	11-Jun-25	S	0.1	0	0.15	0.16	228		2100
MYSTIC/ALEWIFE	MYSTIC MOUTH	052	18-Jun-25	S	0.1	0	0.05	0.05	30		90.1
MYSTIC/ALEWIFE	MYSTIC MOUTH	052	26-Jun-25	S	0.1	0	0	0	9800		130000
MYSTIC/ALEWIFE	MYSTIC MOUTH	052	26-Jun-25	B	3	0	0	0	233		7160
MYSTIC/ALEWIFE	MYSTIC MOUTH	052	14-Jul-25	S	0.1	0	0	0	2920		34800
MYSTIC/ALEWIFE	MYSTIC MOUTH	052	22-Jul-25	B	4.3	0	0	0.2	122		1450
MYSTIC/ALEWIFE	MYSTIC MOUTH	052	22-Jul-25	S	0.1	0	0	0.2	2490		63000
MYSTIC/ALEWIFE	MYSTIC MOUTH	052	24-Jul-25	B	4.3	0	0	0	20		600
MYSTIC/ALEWIFE	MYSTIC MOUTH	052	24-Jul-25	S	0.1	0	0	0	63		6820
MYSTIC/ALEWIFE	MYSTIC MOUTH	052	07-Aug-25	S	0.1	0	0	0	8160		144000
MYSTIC/ALEWIFE	MYSTIC MOUTH	052	07-Aug-25	B	4.6	0	0	0	173		3200
MYSTIC/ALEWIFE	MYSTIC MOUTH	052	14-Aug-25	S	0.1	0.24	0.24	0.24	183		144

Region	Subregion	Station	Day/Time(EST)	Surface/Bottom	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)
MYSTIC/ALEWIFE	MYSTIC MOUTH	052	21-Aug-25	B	5	0	0.24	0.24	20		330
MYSTIC/ALEWIFE	MYSTIC MOUTH	052	21-Aug-25	S	0.1	0	0.24	0.24	529		5000
MYSTIC/ALEWIFE	MYSTIC MOUTH	052	10-Sep-25	S	0.1	0	0	0	2400		24500
MYSTIC/ALEWIFE	MYSTIC MOUTH	052	10-Sep-25	B	3.2	0	0	0	364		4100
MYSTIC/ALEWIFE	MYSTIC MOUTH	052	18-Sep-25	S	0.1	0.11	0.12	0.12	301		2100
MYSTIC/ALEWIFE	MYSTIC MOUTH	052	18-Sep-25	B	4.7	0.11	0.12	0.12	285		927
MYSTIC/ALEWIFE	MYSTIC MOUTH	052	24-Sep-25	B	2.7	0.11	0.11	0.11	86		627
MYSTIC/ALEWIFE	MYSTIC MOUTH	052	24-Sep-25	S	0.1	0.11	0.11	0.11	9210		200000
MYSTIC/ALEWIFE	MYSTIC MOUTH	052	01-Oct-25	B	3.5	0	0	0	0		0
MYSTIC/ALEWIFE	MYSTIC MOUTH	052	01-Oct-25	S	0.1	0	0	0	10		18
MYSTIC/ALEWIFE	MYSTIC MOUTH	052	09-Oct-25	S	0.1	0	0.85	0.85	160		460
MYSTIC/ALEWIFE	MYSTIC MOUTH	052	09-Oct-25	B	2.7	0	0.85	0.85	52		210
MYSTIC/ALEWIFE	MYSTIC MOUTH	052	16-Oct-25	B	3.5	0	0	0.3	63		300
MYSTIC/ALEWIFE	MYSTIC MOUTH	052	16-Oct-25	S	0.1	0	0	0.3	20		108
MYSTIC/ALEWIFE	MYSTIC MOUTH	052	23-Oct-25	S	0.1	0	0.41	0.41	5790		70900
MYSTIC/ALEWIFE	MYSTIC MOUTH	052	23-Oct-25	B	3.3	0	0.41	0.41	134		809
MYSTIC/ALEWIFE	MYSTIC MOUTH	069	09-Apr-25	B	3.9	0	0.12	0.25	10		0
MYSTIC/ALEWIFE	MYSTIC MOUTH	069	09-Apr-25	S	0.1	0	0.12	0.25	0		0
MYSTIC/ALEWIFE	MYSTIC MOUTH	069	17-Apr-25	S	0.1	0	0	0.08	135		72.7
MYSTIC/ALEWIFE	MYSTIC MOUTH	069	30-Apr-25	S	0.1	0	0	0	175		90.9
MYSTIC/ALEWIFE	MYSTIC MOUTH	069	30-Apr-25	B	5	0	0	0	20		0
MYSTIC/ALEWIFE	MYSTIC MOUTH	069	13-May-25	S	0.1	0	0	0	1850		9500
MYSTIC/ALEWIFE	MYSTIC MOUTH	069	03-Jun-25	B	4.6	0	0	0	0		5
MYSTIC/ALEWIFE	MYSTIC MOUTH	069	03-Jun-25	S	0.1	0	0	0	0		118
MYSTIC/ALEWIFE	MYSTIC MOUTH	069	11-Jun-25	S	0.1	0	0.15	0.16	0		631
MYSTIC/ALEWIFE	MYSTIC MOUTH	069	11-Jun-25	B	5	0	0.15	0.16	0		30
MYSTIC/ALEWIFE	MYSTIC MOUTH	069	18-Jun-25	S	0.1	0	0.05	0.05	20		2300
MYSTIC/ALEWIFE	MYSTIC MOUTH	069	26-Jun-25	B	6	0	0	0	0		35
MYSTIC/ALEWIFE	MYSTIC MOUTH	069	26-Jun-25	S	0.1	0	0	0	0		420
MYSTIC/ALEWIFE	MYSTIC MOUTH	069	14-Jul-25	B	4	0	0	0	0		105
MYSTIC/ALEWIFE	MYSTIC MOUTH	069	14-Jul-25	S	0.1	0	0	0	0		145
MYSTIC/ALEWIFE	MYSTIC MOUTH	069	22-Jul-25	S	0.1	0	0	0.2	98		4200
MYSTIC/ALEWIFE	MYSTIC MOUTH	069	22-Jul-25	B	3	0	0	0.2	0		290
MYSTIC/ALEWIFE	MYSTIC MOUTH	069	24-Jul-25	S	0.1	0	0	0	0		27.3
MYSTIC/ALEWIFE	MYSTIC MOUTH	069	24-Jul-25	B	2.7	0	0	0	10		30
MYSTIC/ALEWIFE	MYSTIC MOUTH	069	07-Aug-25	B	6	0	0	0	20		75
MYSTIC/ALEWIFE	MYSTIC MOUTH	069	07-Aug-25	S	0.1	0	0	0	20		400
MYSTIC/ALEWIFE	MYSTIC MOUTH	069	14-Aug-25	S	0.1	0.24	0.24	0.24	20		81.8
MYSTIC/ALEWIFE	MYSTIC MOUTH	069	14-Aug-25	B	3.2	0.24	0.24	0.24	10		5
MYSTIC/ALEWIFE	MYSTIC MOUTH	069	21-Aug-25	S	0.1	0	0.24	0.24	1260		3700
MYSTIC/ALEWIFE	MYSTIC MOUTH	069	21-Aug-25	B	7.2	0	0.24	0.24	31		135
MYSTIC/ALEWIFE	MYSTIC MOUTH	069	10-Sep-25	S	0.1	0	0	0	156		4900
MYSTIC/ALEWIFE	MYSTIC MOUTH	069	18-Sep-25	B	2.8	0.11	0.12	0.12	63		525
MYSTIC/ALEWIFE	MYSTIC MOUTH	069	18-Sep-25	S	0.1	0.11	0.12	0.12	9210		74000
MYSTIC/ALEWIFE	MYSTIC MOUTH	069	24-Sep-25	B	6.2	0.11	0.11	0.11	0		9.09
MYSTIC/ALEWIFE	MYSTIC MOUTH	069	24-Sep-25	S	0.1	0.11	0.11	0.11	20		340
MYSTIC/ALEWIFE	MYSTIC MOUTH	069	01-Oct-25	S	0.1	0	0	0	30		45
MYSTIC/ALEWIFE	MYSTIC MOUTH	069	09-Oct-25	B	4.7	0	0.85	0.85	10		27.3
MYSTIC/ALEWIFE	MYSTIC MOUTH	069	09-Oct-25	S	0.1	0	0.85	0.85	602		4400
MYSTIC/ALEWIFE	MYSTIC MOUTH	069	16-Oct-25	B	2.7	0	0	0.3	41		945
MYSTIC/ALEWIFE	MYSTIC MOUTH	069	16-Oct-25	S	0.1	0	0	0.3	52		856
MYSTIC/ALEWIFE	MYSTIC MOUTH	069	23-Oct-25	S	0.1	0	0.41	0.41	31		260
MYSTIC/ALEWIFE	MYSTIC MOUTH	069	23-Oct-25	B	3.9	0	0.41	0.41	10		72.7
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	06-Jan-25	B	11.1	0	0	0	0		5
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	06-Jan-25	S	0.1	0	0	0	213		480
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	24-Jan-25	B	12	0	0	0	0		0
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	24-Jan-25	S	0.1	0	0	0	0		0
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	05-Feb-25	B	10.9	0	0	0.05	0		0
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	05-Feb-25	S	0.1	0	0	0.05	0		0
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	26-Feb-25	B	13.5	0	0	0	0		5

Region	Subregion	Station	Day/Time(EST)	Surface/Bottom	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)
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	26-Feb-25	S	0.1	0	0	0			0
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	11-Mar-25	S	0.1	0	0	0	31		27.5
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	11-Mar-25	B	15.8	0	0	0	0		0
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	25-Mar-25	S	0.1	0	0.79	0.79	10		22.75
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	25-Mar-25	B	13.4	0	0.79	0.79	0		0
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	02-Apr-25	S	0.1	0.07	0.34	0.57	20.5		165
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	02-Apr-25	B	11.3	0.07	0.34	0.57	0		5
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	15-Apr-25	S	11.9	0.08	0.08	0.16	0		5
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	15-Apr-25	S	0.1	0.08	0.08	0.16	220.5		137.5
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	07-May-25	B	14.6	0.02	0.29	1.04	86		340
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	07-May-25	S	0.1	0.02	0.29	1.04	109		847
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	21-May-25	B	10.9	0	0	0	0		155
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	21-May-25	S	0.1	0	0	0	0		290
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	04-Jun-25	S	0.1	0	0	0	0		9.1
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	04-Jun-25	B	13.2	0	0	0	0		0
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	16-Jun-25	S	0.1	0	0	0.02	0		9.09
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	16-Jun-25	B	11	0	0	0.02	0		5
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	02-Jul-25	B	13.5	0	0.17	0.17	0		15
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	02-Jul-25	S	0.1	0	0.17	0.17	15		1520
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	18-Jul-25	S	0.1	0	0	0	10		63.1
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	18-Jul-25	B	10.8	0	0	0	0		0
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	06-Aug-25	S	0.1	0	0	0	10		631
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	06-Aug-25	B	14.2	0	0	0	0		5
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	20-Aug-25	B	13	0.24	0.24	0.24	0		5
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	20-Aug-25	S	0.1	0.24	0.24	0.24	0		9.09
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	09-Sep-25	B	15.3	0	0	0.79	0		0
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	09-Sep-25	S	0.1	0	0	0.79	0		18.195
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	23-Sep-25	B	13.5	0	0	0	0		5
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	23-Sep-25	S	0.1	0	0	0	0		727
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	07-Oct-25	B	16.3	0	0	0	0		10
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	07-Oct-25	S	0.1	0	0	0	0		81.8
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	28-Oct-25	B	11.7	0	0	0	10		25
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	28-Oct-25	S	0.1	0	0	0	41		4900
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	05-Nov-25	S	0.1	0.02	0.02	0.07	98		340
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	05-Nov-25	B	12.9	0.02	0.02	0.07	0		10
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	04-Dec-25	B	16.2	0	0.03	0.7	0		0
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	04-Dec-25	S	0.1	0	0.03	0.7	52		40

Region	Subregion	Station	Day/Time(EST)	Surface/B ottom	Sample Depth (m)	Ammonium (uM)	Nitrate+nitrate (uM)	Total Nitrogen (uM)	Phosphate (uM)	Chlorophyll a (ug/L)	Phaeophytin (ug/L)	Total phosphorus (uM)	Total suspended solids (mg/L)	Particulate carbon (uM)	Particulate nitrogen (uM)	Particulate P (uM)	Total dissolved N (uM)	Total dissolved P (uM)
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	2-Jul-25	B	13.5	3.09	0.75		0.693	1.51	1.98		2.82					
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	2-Jul-25	S	0.1	0.455	0.5525		0.04355	4.75	3.65		3.445	47.2	7.155	0.734	21.6	0.737
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	18-Jul-25	S	0.1	1.91	0.69		1.22	6.39	2.48		19.4	57.9	10.9	0.587	19.7	1.68
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	18-Jul-25	B	10.8	4.9	0.966		0.732	1.95	1.96		10.5					
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	6-Aug-25	S	0.1	1.57	0.255		0.597	3.95	1.32		6.32	137	21.2	1.75	20.2	1.42
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	6-Aug-25	B	14.2	2.64	0.366		0.844	0.213	0.217		2.58					
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	20-Aug-25	B	13	2.05	0.301		0.934	2.55	1.59		5.5					
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	20-Aug-25	S	0.1	0.131	0.025		0.329	4.91	1.35		4.31	60.2	9.1	0.72	13.4	0.848
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	9-Sep-25	B	15.3	5.66	1.23		1.15	0.413	0.601		2.64					
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	9-Sep-25	S	0.1	2.33	2.445		0.646	0.225	0.465		4.715	43.65	5.98	0.6	23.75	1.26
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	23-Sep-25	B	13.5	7.52	2.07		1.3	1.08	0.835		2.21					
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	23-Sep-25	S	0.1	0.791	0.391		0.482	5.11	1.87		9.77	66.5	8.85	0.663	19.2	1.27
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	7-Oct-25	B	16.3	13.4	3.38		2.01	0.554	1.15		3.15					
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	7-Oct-25	S	0.1	2.5	4.92		0.753	9.89	1.38		4.61	54.6	8.87	0.687	23.9	1.25
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	28-Oct-25	B	11.7	6.1	4.79		1.13	0.447	0.992		2.83					
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	28-Oct-25	S	0.1	9.58	6.83		1.47	2.13	1.06		2.35	34.1	4.54	0.375	24.9	1.73
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	5-Nov-25	S	0.1	8.03	7.9		1.24	1.18	0.855		1.7	22.9	2.87	0.243	26.2	1.56
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	5-Nov-25	B	12.9	5.89	6.57		2.01	0.335	0.411		3.34					
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	4-Dec-25	B	16.2	2.41	5.09		0.706	0.704	0.367							
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	4-Dec-25	S	0.1	4.27	8.26		0.672	0.978	0.538			18	2.19	0.156	29.2	1.16

APPENDIX V

2025 raw data for physical profile results.

Region	Subregion	Station	Day/Time (EST)	Surface or Bottom	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)
CHARLES RIVER	UPPER BASIN	012	1/8/2025	S	0.1	0	0	0	0.32	0.26	13.32	92.1	0.555		7.61	
CHARLES RIVER	UPPER BASIN	012	1/21/2025	S	0.1	0	0.01	0.38	0.204	0.45	15.15	104.5	0.926		7.62	
CHARLES RIVER	UPPER BASIN	012	2/4/2025	S	0.1	0	0.05	0.15	1.411	0.61	13.29	95	1.249		7.77	
CHARLES RIVER	UPPER BASIN	012	2/20/2025	S	0.1	0	0	0	0.447	0.68	14.48	100.7	1.373		7.42	
CHARLES RIVER	UPPER BASIN	012	2/20/2025	B		0	0	0	0.436	0.68	14.62	101.7	1.373		7.37	
CHARLES RIVER	UPPER BASIN	012	3/3/2025	S	0.1	0	0	0	1.048	0.31	14.64	103.3	0.645	0	7.95	
CHARLES RIVER	UPPER BASIN	012	3/20/2025	S	0.1	0	0	0	10.222	0.25	11.73	104.7	0.521		7.47	
CHARLES RIVER	UPPER BASIN	012	3/31/2025	S	0.1	0.23	0.25	0.29								
CHARLES RIVER	UPPER BASIN	012	4/14/2025	S	0.1	0	0.08	0.45	8.083	0.25	12.32	104.4	0.518		7.27	
CHARLES RIVER	UPPER BASIN	012	4/14/2025	B		0	0.08	0.45	8.085	0.25	12.4	105.1	0.519		7.21	
CHARLES RIVER	UPPER BASIN	012	4/28/2025	S	0.1	0	0	0.55	15.285	0.28	10.56	105.5	0.57	2.47	7.38	
CHARLES RIVER	UPPER BASIN	012	5/15/2025	S	0.1	0.35	0.35	0.35	18.943	0.21	8.38	90.4	0.43	4.14	6.92	
CHARLES RIVER	UPPER BASIN	012	5/15/2025	B		0.35	0.35	0.35	18.923	0.21	8.16	87.9	0.43	4.7	6.88	
CHARLES RIVER	UPPER BASIN	012	5/28/2025	S	0.1	0	0	0	18.11	0.19	9.19	97.4	0.4		7.19	
CHARLES RIVER	UPPER BASIN	012	6/9/2025	S	0.1	0.01	0.01	1.05	20.268	0.22	8.34	92.4	0.465	2.75	6.87	
CHARLES RIVER	UPPER BASIN	012	6/27/2025	S	0.1	0	0	0	23.823	0.31	7.51	89.1	0.641		7.08	
CHARLES RIVER	UPPER BASIN	012	7/7/2025	S	0.1	0	0	0	26.428	0.34	6.67	82.9	0.699	0.25	7.43	
CHARLES RIVER	UPPER BASIN	012	7/7/2025	B		0	0	0	25.669	0.34	5.77	70.8	0.707	6.47	7.24	
CHARLES RIVER	UPPER BASIN	012	7/25/2025	S	0.1	0.1	0.1	0.1	25.913	0.25	6.49	80	0.522		7.28	
CHARLES RIVER	UPPER BASIN	012	8/8/2025	S	0.1	0	0	0	22.494	0.31	7.47	86.4	0.637	1.61	7.33	
CHARLES RIVER	UPPER BASIN	012	8/18/2025	S	0.1	0	0	0	24.058	0.37	5.65	67.3	0.756		7.42	
CHARLES RIVER	UPPER BASIN	012	9/2/2025	S	0.1	0	0	0	20.528	0.39	5.98	66.7	0.796		7.34	
CHARLES RIVER	UPPER BASIN	012	9/2/2025	B		0	0	0	19.762	0.39	5.2	57	0.797		7.01	
CHARLES RIVER	UPPER BASIN	012	9/15/2025	S	0.1	0	0	0	19.795	0.39	7.36	80.8	0.798	0	7.22	
CHARLES RIVER	UPPER BASIN	012	10/2/2025	S	0.1	0	0	0	17.12	0.35	8.91	92.6	0.721		7.4	
CHARLES RIVER	UPPER BASIN	012	10/14/2025	S	0.1	0.3	1.97	2.42	14.091	0.3	9.7	94.4	0.61	3.06	7.35	
CHARLES RIVER	UPPER BASIN	012	10/29/2025	S	0.1	0	0	0	10.477	0.28	10.88	97.7	0.577		7.05	
CHARLES RIVER	UPPER BASIN	012	10/29/2025	B		0	0	0	10.466	0.28	10.5	94.2	0.578		7	
CHARLES RIVER	UPPER BASIN	012	11/13/2025	S	0.1	0.01	0.01	0.01	7.67	0.3	11.08	93	0.624		7.33	
CHARLES RIVER	UPPER BASIN	012	11/24/2025	S	0.1	0	0	0.1	4.416	0.29	12.04	93	0.607		7.28	
CHARLES RIVER	UPPER BASIN	012	11/24/2025	B		0	0	0.1	4.403	0.29	12.19	94.1	0.606		7.23	
CHARLES RIVER	UPPER BASIN	012	12/10/2025	S	0.1	0.04	0.04	0.04	1.977	0.31	11.88	86	0.647		7.56	
CHARLES RIVER	UPPER BASIN	012	12/10/2025	B		0.04	0.04	0.04	1.932	0.31	12.38	89.5	0.646		7.43	
CHARLES RIVER	UPPER BASIN	012	12/22/2025	S	0.1	0	0	0	1.175	0.39			0.805		7.57	
CHARLES RIVER	UPPER BASIN	012	12/22/2025	B		0	0	0	1.226	0.39			0.804		7.44	
CHARLES RIVER	UPPER BASIN	001	4/4/2025	S	0.1	0	0.19	0.26	11.437	0.25	11.85	108.7	0.522	5.44	6.87	0.8
CHARLES RIVER	UPPER BASIN	001	4/4/2025	B		0	0.19	0.26	11.387	0.25	11.83	108.4	0.521	5.66	6.83	
CHARLES RIVER	UPPER BASIN	001	4/16/2025	S	0.1	0	0.08	0.08	10.615	0.22	11.34	102.1	0.464	6.9	6.98	
CHARLES RIVER	UPPER BASIN	001	4/16/2025	B		0	0.08	0.08	10.634	0.27	11.24	101.2	0.554	17.4	6.94	
CHARLES RIVER	UPPER BASIN	001	4/29/2025	S	0.1	0	0	0	16.486	0.29	9.64	98.8	0.596	5.8	7.18	
CHARLES RIVER	UPPER BASIN	001	4/29/2025	B		0	0	0	16.495	0.29	9.63	98.7	0.595	4.31	7.12	
CHARLES RIVER	UPPER BASIN	001	5/5/2025	S	0.1	0.75	0.84	0.89	17.839	0.19	7.93	83.5	0.402	6.56	6.94	0.5
CHARLES RIVER	UPPER BASIN	001	5/5/2025	B		0.75	0.84	0.89	17.858	0.21	7.85	82.8	0.432	8.91	6.83	
CHARLES RIVER	UPPER BASIN	001	5/9/2025	S	0.1	1.09	1.09	1.11	17.707	0.27	7.62	80.1	0.549	5.76	6.99	0.8
CHARLES RIVER	UPPER BASIN	001	5/9/2025	B		1.09	1.09	1.11	17.737	0.27	7.44	78.3	0.549	6.79	6.8	
CHARLES RIVER	UPPER BASIN	001	5/14/2025	S	0.1	0	0	0	18.164	0.24	7.52	79.8	0.495	7.13	6.72	
CHARLES RIVER	UPPER BASIN	001	6/2/2025	S	0.1	0	0	0.21	18.207	0.23	8.45	89.7	0.469	24.53	6.96	
CHARLES RIVER	UPPER BASIN	001	6/2/2025	B		0	0	0.21	18.206	0.22	8.45	89.7	0.454	18.67	6.87	
CHARLES RIVER	UPPER BASIN	001	6/6/2025	S	0.1	0	0	0	22.974	0.24	8.39	97.9	0.504		6.99	0.6
CHARLES RIVER	UPPER BASIN	001	6/12/2025	S	0.1	0	0	0.15	21.013	0.27	7.99	89.7	0.561	5.46	6.98	
CHARLES RIVER	UPPER BASIN	001	6/30/2025	S	0.1	0	0	0.03	25.571	0.34	7.13	87.4	0.694	5.54	6.97	
CHARLES RIVER	UPPER BASIN	001	7/21/2025	S	0.1	0	0.2	0.2	25.494	0.23	6.97	85.2	0.49	16.01	7.29	0.6
CHARLES RIVER	UPPER BASIN	001	8/11/2025	S	0.1	0	0	0	25.562	0.35	7.71	94.5	0.714	1.17	7.31	
CHARLES RIVER	UPPER BASIN	001	8/15/2025	S	0.1	0	0.24	0.24	26.215	0.37	6.76	83.9	0.762	2.1	7.54	0.3
CHARLES RIVER	UPPER BASIN	001	9/5/2025	S	0.1	0.08	0.08	0.08	22.025	0.42	7.96	91.3	0.86	13.87	7.49	
CHARLES RIVER	UPPER BASIN	001	9/5/2025	B		0.08	0.08	0.08	21.902	0.42	7.5	85.9	0.859	14.49	7.02	
CHARLES RIVER	UPPER BASIN	001	9/12/2025	S	0.1	0	0	0	20.014	0.47	8.02	88.5	0.942		7.57	
CHARLES RIVER	UPPER BASIN	001	9/12/2025	B		0	0	0	19.772	0.47	7.61	83.6	0.944		7.36	
CHARLES RIVER	UPPER BASIN	001	9/16/2025	S	0.1	0	0	0	20.707	0.44	7.85	87.8	0.89	1.87	7.57	
CHARLES RIVER	UPPER BASIN	001	9/16/2025	B		0	0	0	20.4	0.44	7.67	85.2	0.883	8.51	7.17	
CHARLES RIVER	UPPER BASIN	001	9/19/2025	S	0.1	0	0.11	0.12	20.512	0.39	8.51	94.8	0.792	8.39	7.78	
CHARLES RIVER	UPPER BASIN	001	10/10/2025	S	0.1	0	0	0.85	15.244	0.36	8.83	88.2	0.727	5.8	7.62	1
CHARLES RIVER	UPPER BASIN	001	10/10/2025	B		0	0	0.85	14.354	0.34	8.09	79.3	0.696	5.81	7.34	
CHARLES RIVER	UPPER BASIN	001	10/21/2025	S	0.1	0	0.62	0.62	14.513	0.3	9.74	95.8	0.616	3.41	7.16	0.8
CHARLES RIVER	UPPER BASIN	001	10/21/2025	B		0	0.62	0.62	14.498	0.3	9.92	97.4	0.61	7.13	7.06	
CHARLES RIVER	UPPER BASIN	001	10/24/2025	S	0.1	0	0	0.41	13.227	0.28	9.68	92.5	0.565	5.06	7.06	1
CHARLES RIVER	UPPER BASIN	001	10/24/2025	B		0	0	0.41	13.167	0.28	9.77	93.2	0.567	12.95	6.87	
CHARLES RIVER	UPPER BASIN	001	11/7/2025	S	0.1	0.01	0.01	0.03	8.319	0.3	11.23	95.7	0.605	11.07	7.24	
CHARLES RIVER	UPPER BASIN	001	11/7/2025	B		0.01	0.01	0.03	8.301	0.28	11.12	94.8	0.566	12.95	7.05	

Region	Subregion	Station	Day/Time (EST)	Surface or Bottom	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)
CHARLES RIVER	UPPER BASIN	144	4/4/2025	S	0.1	0	0.19	0.26	11.089	0.26	11.72	106.6	0.526	7.89	6.91	1
CHARLES RIVER	UPPER BASIN	144	4/4/2025	B		0	0.19	0.26	11.043	0.26	11.54	104.9	0.526	8.56	6.84	
CHARLES RIVER	UPPER BASIN	144	4/16/2025	S	0.1	0	0.08	0.08	10.15	0.28	11.02	98.1	0.565	7.89	6.95	0.8
CHARLES RIVER	UPPER BASIN	144	4/16/2025	B		0	0.08	0.08	10.119	0.28	10.93	97.2	0.584	8.36	6.93	
CHARLES RIVER	UPPER BASIN	144	4/29/2025	S	0.1	0	0	0	16.305	0.29	8.96	91.5	0.603	6.36	7.09	1.1
CHARLES RIVER	UPPER BASIN	144	4/29/2025	B		0	0	0	15.504	0.29	8.59	86.2	0.603	7.22	6.95	
CHARLES RIVER	UPPER BASIN	144	5/5/2025	S	0.1	0.75	0.84	0.89	18.251	0.24	6.29	66.9	0.488	6.02	6.82	0.5
CHARLES RIVER	UPPER BASIN	144	5/5/2025	B		0.75	0.84	0.89	18.258	0.25	6.13	65.2	0.51	7.46	6.75	
CHARLES RIVER	UPPER BASIN	144	5/9/2025	S	0.1	1.09	1.09	1.11	17.442	0.28	7.08	74.1	0.566	10.25	7	0.6
CHARLES RIVER	UPPER BASIN	144	5/9/2025	B		1.09	1.09	1.11	17.36	0.29	7.08	73.9	0.593	13.94	6.81	
CHARLES RIVER	UPPER BASIN	144	5/14/2025	S	0.1	0	0	0	18	0.23	7.75	82	0.477	7.26	6.96	0.8
CHARLES RIVER	UPPER BASIN	144	5/14/2025	B		0	0	0	17.786	0.25	7.56	79.6	0.508	7.87	6.8	
CHARLES RIVER	UPPER BASIN	144	6/2/2025	S	0.1	0	0	0.21	17.875	0.22	8.23	86.8	0.461	3.59	6.97	1
CHARLES RIVER	UPPER BASIN	144	6/2/2025	B		0	0	0.21	17.576	0.24	8.08	84.7	0.497	4.77	6.83	
CHARLES RIVER	UPPER BASIN	144	6/6/2025	S	0.1	0	0	0	22.617	0.24	8.03	93	0.494	3.36	6.99	1.1
CHARLES RIVER	UPPER BASIN	144	6/6/2025	B		0	0	0	22.157	0.25	7.28	83.6	0.51	4.31	6.76	
CHARLES RIVER	UPPER BASIN	144	6/12/2025	S	0.1	0	0	0.15	20.707	0.25	7.76	86.7	0.516	4.49	6.99	0.8
CHARLES RIVER	UPPER BASIN	144	6/12/2025	B		0	0	0.15	20.393	0.23	7.64	84.8	0.473	6.03	6.86	
CHARLES RIVER	UPPER BASIN	144	6/30/2025	S	0.1	0	0	0.03	25.996	0.34	8.45	104.3	0.692	3.02	7.06	1
CHARLES RIVER	UPPER BASIN	144	6/30/2025	B		0	0	0.03	24.16	0.36	7.14	85.2	0.737	3.39	6.89	
CHARLES RIVER	UPPER BASIN	144	7/21/2025	S	0.1	0	0.2	0.2	25.043	0.17	5.81	70.4	0.357	7.79	7.32	0.5
CHARLES RIVER	UPPER BASIN	144	7/21/2025	B		0	0.2	0.2	25.207	0.22	4.58	55.8	0.457	10.92	6.94	
CHARLES RIVER	UPPER BASIN	144	8/11/2025	S	0.1	0	0	0	26.268	0.35	9.75	120.9	0.718	2.54	7.5	1
CHARLES RIVER	UPPER BASIN	144	8/11/2025	B		0	0	0	25.097	0.37	9	109.3	0.765	7.82	7.2	
CHARLES RIVER	UPPER BASIN	144	8/15/2025	S	0.1	0	0.24	0.24	26.889	0.37	7.8	97.9	0.765	3.75	7.57	0.6
CHARLES RIVER	UPPER BASIN	144	8/15/2025	B		0	0.24	0.24	26.707	0.36	6.83	85.5	0.749	4.13	7.32	
CHARLES RIVER	UPPER BASIN	144	9/5/2025	S	0.1	0.08	0.08	0.08	22.394	0.38	10.53	121.6	0.773	13.71	7.57	0.8
CHARLES RIVER	UPPER BASIN	144	9/5/2025	B		0.08	0.08	0.08	22.077	0.38	9.92	113.8	0.771	14.23	7.34	
CHARLES RIVER	UPPER BASIN	144	9/12/2025	S	0.1	0	0	0	20.637	0.45	8.38	93.6	0.92		7.47	1.4
CHARLES RIVER	UPPER BASIN	144	9/12/2025	B		0	0	0	19.922	0.46	7.05	77.7	0.935		7.14	
CHARLES RIVER	UPPER BASIN	144	9/16/2025	S	0.1	0	0	0	21.454	0.46	8.6	97.6	0.937	2.55	7.53	1.5
CHARLES RIVER	UPPER BASIN	144	9/16/2025	B		0	0	0	21.191	0.47	8.04	90.7	0.947	3.28	7.43	
CHARLES RIVER	UPPER BASIN	144	9/19/2025	S	0.1	0	0.11	0.12	20.926	0.42	9.67	108.6	0.856	8.33	7.75	1
CHARLES RIVER	UPPER BASIN	144	9/19/2025	B		0	0.11	0.12	20.747	0.42	8.86	99.2	0.861	8.15	7.41	
CHARLES RIVER	UPPER BASIN	144	10/10/2025	S	0.1	0	0	0.85	16.331	0.31	8.17	83.5	0.628	6.2	7.71	1.6
CHARLES RIVER	UPPER BASIN	144	10/10/2025	B		0	0	0.85	15.683	0.32	7.4	74.7	0.661	6.87	7.25	
CHARLES RIVER	UPPER BASIN	144	10/21/2025	S	0.1	0	0.62	0.62	13.605	0.29	8.91	85.9	0.589	4.24	7.03	1
CHARLES RIVER	UPPER BASIN	144	10/21/2025	B		0	0.62	0.62	13.538	0.29	8.79	84.5	0.586	4.65	6.91	
CHARLES RIVER	UPPER BASIN	144	10/24/2025	S	0.1	0	0	0.41	13.332	0.28	9.46	90.6	0.583	4.48	6.96	1.5
CHARLES RIVER	UPPER BASIN	144	10/24/2025	B		0	0	0.41	13.121	0.3	9.22	87.9	0.604	8	6.85	
CHARLES RIVER	UPPER BASIN	144	11/7/2025	S	0.1	0.01	0.01	0.03	7.91	0.3	10.95	92.4	0.62	11.71	7.1	1.2
CHARLES RIVER	UPPER BASIN	144	11/7/2025	B		0.01	0.01	0.03	7.756	0.29	10.82	90.9	0.603	11.89	6.96	
CHARLES RIVER	UPPER BASIN	002	4/4/2025	S	0.1	0	0.19	0.26	10.982	0.26	11.64	105.7	0.531	5.5	7.03	0.8
CHARLES RIVER	UPPER BASIN	002	4/4/2025	B		0	0.19	0.26	10.88	0.26	11.28	102.1	0.532	6.57	6.83	
CHARLES RIVER	UPPER BASIN	002	4/16/2025	S	0.1	0	0.08	0.08	9.861	0.27	10.94	96.7	0.545	7.34	6.92	1
CHARLES RIVER	UPPER BASIN	002	4/16/2025	B		0	0.08	0.08	9.8	0.24	10.66	94.1	0.493	13.88	6.87	
CHARLES RIVER	UPPER BASIN	002	4/29/2025	S	0.1	0	0	0	15.864	0.29	8.51	86.2	0.603	6.59	7.04	1
CHARLES RIVER	UPPER BASIN	002	4/29/2025	B		0	0	0	15.683	0.29	8.16	82.2	0.603	9.2	6.9	
CHARLES RIVER	UPPER BASIN	002	5/5/2025	S	0.1	0.75	0.84	0.89	18.373	0.27	6.33	67.5	0.557	6.89	7.01	0.5
CHARLES RIVER	UPPER BASIN	002	5/5/2025	B		0.75	0.84	0.89	18.41	0.28	5.77	61.5	0.568	8.38	6.72	
CHARLES RIVER	UPPER BASIN	002	5/9/2025	S	0.1	1.09	1.09	1.11	17.486	0.28	6.93	72.6	0.567	6.86	6.85	0.7
CHARLES RIVER	UPPER BASIN	002	5/9/2025	B		1.09	1.09	1.11	17.474	0.28	6.95	72.8	0.569	9.79	6.68	
CHARLES RIVER	UPPER BASIN	002	5/14/2025	S	0.1	0	0	0	17.689	0.23	7.65	80.4	0.479	7.25	6.98	0.9
CHARLES RIVER	UPPER BASIN	002	5/14/2025	B		0	0	0	17.606	0.23	7.51	78.8	0.478	7.27	6.75	
CHARLES RIVER	UPPER BASIN	002	6/2/2025	S	0.1	0	0	0.21	17.534	0.24	7.99	83.7	0.488	3.93	6.98	1
CHARLES RIVER	UPPER BASIN	002	6/2/2025	B		0	0	0.21	17.48	0.24	7.92	82.9	0.502	4.5	6.83	
CHARLES RIVER	UPPER BASIN	002	6/6/2025	S	0.1	0	0	0	23.271	0.24	7.84	92	0.501	3.18	7.02	1
CHARLES RIVER	UPPER BASIN	002	6/6/2025	B		0	0	0	22.434	0.24	7.03	81.2	0.506	5.19	6.79	
CHARLES RIVER	UPPER BASIN	002	6/12/2025	S	0.1	0	0	0.15	20.33	0.22	7.47	82.8	0.464	5.34	7	0.8
CHARLES RIVER	UPPER BASIN	002	6/12/2025	B		0	0	0.15	20.104	0.25	7.13	78.7	0.526	9.22	6.8	
CHARLES RIVER	UPPER BASIN	002	6/30/2025	S	0.1	0	0	0.03	25.563	0.34	8.42	103.1	0.696	2.59	7.07	1
CHARLES RIVER	UPPER BASIN	002	6/30/2025	B		0	0	0.03	24.002	0.35	7.33	87.2	0.711	4.47	6.87	
CHARLES RIVER	UPPER BASIN	002	7/21/2025	S	0.1	0	0.2	0.2	26.287	0.2	5.3	65.7	0.425	12.33	7.28	0.5
CHARLES RIVER	UPPER BASIN	002	7/21/2025	B		0	0.2	0.2	25.867	0.2	4.23	52.1	0.423	10	6.79	
CHARLES RIVER	UPPER BASIN	002	8/11/2025	S	0.1	0	0	0	25.642	0.35	9.23	113.2	0.724	9.98	7.72	1
CHARLES RIVER	UPPER BASIN	002	8/11/2025	B		0	0	0	24.391	0.37	6.84	82.1	0.75	5.65	7.02	
CHARLES RIVER	UPPER BASIN	002	8/15/2025	S	0.1	0	0.24	0.24	26.594	0.37	8	99.8	0.755	3.71	7.68	1
CHARLES RIVER	UPPER BASIN	002	8/15/2025	B		0	0.24	0.24	26.527	0.36	7.4	92.3	0.746	4.84	7.17	
CHARLES RIVER	UPPER BASIN	002	9/5/2025	S	0.1	0.08	0.08	0.08	22.237	0.39	10.12	116.5	0.793	13.63	7.47	1

Region	Subregion	Station	Day/Time (EST)	Surface or Bottom	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)
CHARLES RIVER	UPPER BASIN	002	9/5/2025	B		0.08	0.08	0.08	21.407	0.47	4.01	45.5	0.957	16.27	6.74	
CHARLES RIVER	UPPER BASIN	002	9/12/2025	S	0.1	0	0	0	20.854	0.41	8.85	99.3	0.842		7.56	1.1
CHARLES RIVER	UPPER BASIN	002	9/12/2025	B		0	0	0	20.146	0.43	6.84	75.6	0.878		7.1	
CHARLES RIVER	UPPER BASIN	002	9/16/2025	S	0.1	0	0	0	21.314	0.49	8.47	95.9	0.989	2.64	7.71	1.5
CHARLES RIVER	UPPER BASIN	002	9/16/2025	B		0	0	0	21.003	0.49	7.23	81.3	0.992	9.14	7.09	
CHARLES RIVER	UPPER BASIN	002	9/19/2025	S	0.1	0	0.11	0.12	21.03	0.44	9.51	107	0.886	10.12	7.77	1.1
CHARLES RIVER	UPPER BASIN	002	9/19/2025	B		0	0.11	0.12	20.764	0.44	8.34	93.4	0.888	9.73	7.12	
CHARLES RIVER	UPPER BASIN	002	10/10/2025	S	0.1	0	0	0.85	16.618	0.25	6.07	62.4	0.52	7.31	7.58	0.6
CHARLES RIVER	UPPER BASIN	002	10/10/2025	B		0	0	0.85	16.271	0.24	5.23	53.3	0.499	8.94	7.16	
CHARLES RIVER	UPPER BASIN	002	10/21/2025	S	0.1	0	0.62	0.62	13.961	0.27	8.71	84.6	0.552	5.54	7.16	1
CHARLES RIVER	UPPER BASIN	002	10/21/2025	B		0	0.62	0.62	13.895	0.27	8.48	82.2	0.554	7.49	6.87	
CHARLES RIVER	UPPER BASIN	002	10/24/2025	S	0.1	0	0	0.41	13.786	0.28	9.26	89.6	0.574	4.83	6.92	1.5
CHARLES RIVER	UPPER BASIN	002	10/24/2025	B		0	0	0.41	13.391	0.3	9.07	87	0.606		6.85	
CHARLES RIVER	UPPER BASIN	002	11/7/2025	S	0.1	0.01	0.01	0.03	8.207	0.3	11.06	94.1	0.624	11.8	7.31	1.3
CHARLES RIVER	UPPER BASIN	002	11/7/2025	B		0.01	0.01	0.03	8.04	0.29	10.77	91.2	0.6	11.9	7.02	
CHARLES RIVER	UPPER BASIN	003	4/4/2025	S	0.1	0	0.19	0.26	11.066	0.26	11.59	105.4	0.533	5.75	6.9	1
CHARLES RIVER	UPPER BASIN	003	4/4/2025	B		0	0.19	0.26	10.946	0.26	11.32	102.7	0.532	7.25	6.83	
CHARLES RIVER	UPPER BASIN	003	4/16/2025	S	0.1	0	0.08	0.08	10.137	0.27	10.79	96	0.551	7.92	6.97	0.8
CHARLES RIVER	UPPER BASIN	003	4/16/2025	B		0	0.08	0.08	10.068	0.26	10.29	91.4	0.533	9.38	6.85	
CHARLES RIVER	UPPER BASIN	003	4/29/2025	S	0.1	0	0	0	16.835	0.29	9.26	95.6	0.599	6.86	7.08	0.9
CHARLES RIVER	UPPER BASIN	003	4/29/2025	B		0	0	0	16.655	0.29	9.1	93.6	0.599	8.52	6.97	
CHARLES RIVER	UPPER BASIN	003	5/5/2025	S	0.1	0.75	0.84	0.89	19.664	0.27	5.66	61.9	0.561	6.89	6.96	0.5
CHARLES RIVER	UPPER BASIN	003	5/5/2025	B		0.75	0.84	0.89	19.704	0.29	5.17	56.6	0.595	11.07	6.73	
CHARLES RIVER	UPPER BASIN	003	5/9/2025	S	0.1	1.09	1.09	1.11	18.172	0.28	6.73	71.5	0.57	7.18	6.89	0.7
CHARLES RIVER	UPPER BASIN	003	5/9/2025	B		1.09	1.09	1.11	18.207	0.28	6.55	69.6	0.571	8.95	6.74	
CHARLES RIVER	UPPER BASIN	003	5/14/2025	S	0.1	0	0	0	17.963	0.23	7.3	77.1	0.484	7.19	6.83	0.6
CHARLES RIVER	UPPER BASIN	003	5/14/2025	B		0	0	0	17.523	0.23	7.08	74.1	0.482	6.66	6.7	
CHARLES RIVER	UPPER BASIN	003	6/2/2025	S	0.1	0	0	0.21	17.952	0.21	7.96	84.1	0.439	3.34	7.05	0.6
CHARLES RIVER	UPPER BASIN	003	6/2/2025	B		0	0	0.21	17.71	0.23	7.47	78.5	0.475	8.93	6.86	
CHARLES RIVER	UPPER BASIN	003	6/6/2025	S	0.1	0	0	0	23.91	0.25	8.13	96.5	0.511	3.14	6.98	1
CHARLES RIVER	UPPER BASIN	003	6/6/2025	B		0	0	0	22.027	0.26	6.84	78.4	0.532	6.43	6.72	
CHARLES RIVER	UPPER BASIN	003	6/12/2025	S	0.1	0	0	0.15	21.322	0.23	7.55	85.3	0.486	4.33	6.97	0.8
CHARLES RIVER	UPPER BASIN	003	6/12/2025	B		0	0	0.15	20.919	0.24	7.24	81.1	0.489	16.08	6.81	
CHARLES RIVER	UPPER BASIN	003	6/30/2025	S	0.1	0	0	0.03	25.174	0.34	9.65	117.3	0.709	8.04	7.16	0.5
CHARLES RIVER	UPPER BASIN	003	6/30/2025	B		0	0	0.03	23.262	0.36	4.83	56.6	0.734	6.86	6.79	
CHARLES RIVER	UPPER BASIN	003	7/21/2025	S	0.1	0	0.2	0.2	26.547	0.27	5.77	72	0.555	6.76	7.15	0.5
CHARLES RIVER	UPPER BASIN	003	7/21/2025	B		0	0.2	0.2	26.311	0.24	4.58	56.8	0.504	9.66	6.78	
CHARLES RIVER	UPPER BASIN	003	8/11/2025	S	0.1	0	0	0	25.628	0.35	9.31	114.2	0.728	5.46	7.68	0.8
CHARLES RIVER	UPPER BASIN	003	8/11/2025	B		0	0	0	24.488	0.36	6.32	76	0.737	6.95	6.96	
CHARLES RIVER	UPPER BASIN	003	8/15/2025	S	0.1	0	0.24	0.24	26.481	0.36	8.09	100.7	0.732	4.3	7.66	0.7
CHARLES RIVER	UPPER BASIN	003	8/15/2025	B		0	0.24	0.24	25.377	0.54	1.78	21.8	1.093	13.27	6.98	
CHARLES RIVER	UPPER BASIN	003	9/5/2025	S	0.1	0.08	0.08	0.08	23.446	0.53	10.27	121.1	1.069	14.08	7.69	1
CHARLES RIVER	UPPER BASIN	003	9/5/2025	B		0.08	0.08	0.08	22.427	0.52	7.05	81.6	1.055	12.48	7.1	
CHARLES RIVER	UPPER BASIN	003	9/12/2025	S	0.1	0	0	0	20.243	0.27	8.82	97.6	0.564		7.49	0.7
CHARLES RIVER	UPPER BASIN	003	9/12/2025	B		0	0	0	19.905	0.31	6.83	75.1	0.63		7.16	
CHARLES RIVER	UPPER BASIN	003	9/16/2025	S	0.1	0	0	0	21.243	0.47	8.84	99.8	0.947	3.04	7.86	1.2
CHARLES RIVER	UPPER BASIN	003	9/16/2025	B		0	0	0	20.683	0.51	4.99	55.7	1.029	8.74	7.26	
CHARLES RIVER	UPPER BASIN	003	9/19/2025	S	0.1	0	0.11	0.12	21.701	0.47	8.86	101	0.946	12.87	7.79	0.9
CHARLES RIVER	UPPER BASIN	003	9/19/2025	B		0	0.11	0.12	21.212	0.46	7.2	81.3	0.938	9.6	7.09	
CHARLES RIVER	UPPER BASIN	003	10/10/2025	S	0.1	0	0	0.85	17.531	0.36	7.19	75.3	0.732	6.58	7.54	1.2
CHARLES RIVER	UPPER BASIN	003	10/10/2025	B		0	0	0.85	17.344	0.36	6.5	67.8	0.729	12.82	7.15	
CHARLES RIVER	UPPER BASIN	003	10/21/2025	S	0.1	0	0.62	0.62	14.468	0.26	8.71	85.5	0.536	8.71	7.18	0.7
CHARLES RIVER	UPPER BASIN	003	10/21/2025	B		0	0.62	0.62	14.33	0.26	8.29	81.1	0.539	8.69	6.88	
CHARLES RIVER	UPPER BASIN	003	10/24/2025	S	0.1	0	0	0.41	13.664	0.26	8.68	83.8	0.53	5.53	6.97	1
CHARLES RIVER	UPPER BASIN	003	10/24/2025	B		0	0	0.41	13.21	0.27	8.12	77.6	0.556	7.49	6.76	
CHARLES RIVER	UPPER BASIN	003	11/7/2025	S	0.1	0.01	0.01	0.03	8.674	0.3	10.66	91.7	0.611	12.25	7.1	1.3
CHARLES RIVER	UPPER BASIN	003	11/7/2025	B		0.01	0.01	0.03	8.513	0.32	10.14	86.8	0.656	13.04	6.94	
CHARLES RIVER	UPPER BASIN	004	4/4/2025	S	0.1	0	0.19	0.26	11.201	0.26	11.66	106.4	0.529	6.4	7.01	0.9
CHARLES RIVER	UPPER BASIN	004	4/4/2025	B		0	0.19	0.26	10.938	0.26	11.38	103.2	0.531	7.07	6.77	
CHARLES RIVER	UPPER BASIN	004	4/16/2025	S	0.1	0	0.08	0.08	11.041	0.27	10.96	99.6	0.559	7.15	6.94	0.7
CHARLES RIVER	UPPER BASIN	004	4/16/2025	B		0	0.08	0.08	10.772	0.24	9.06	81.8	0.503	9.69	6.87	
CHARLES RIVER	UPPER BASIN	004	4/29/2025	S	0.1	0	0	0	16.349	0.29	9.23	94.4	0.603	6.26	7.02	1
CHARLES RIVER	UPPER BASIN	004	4/29/2025	B		0	0	0	15.811	0.29	8.35	84.4	0.603	8.44	6.89	
CHARLES RIVER	UPPER BASIN	004	5/5/2025	S	0.1	0.75	0.84	0.89	19.474	0.32	5.72	62.4	0.663	5.01	6.99	0.8
CHARLES RIVER	UPPER BASIN	004	5/5/2025	B		0.75	0.84	0.89	19.469	0.28	5.21	56.8	0.58	8.83	6.79	
CHARLES RIVER	UPPER BASIN	004	5/9/2025	S	0.1	1.09	1.09	1.11	17.887	0.28	6.7	70.7	0.573	7	6.82	0.7
CHARLES RIVER	UPPER BASIN	004	5/9/2025	B		1.09	1.09	1.11	17.878	0.28	6.48	68.3	0.574	7.67	6.72	
CHARLES RIVER	UPPER BASIN	004	5/14/2025	S	0.1	0	0	0	18.595	0.24	7.28	78	0.494	7.63	6.95	0.6
CHARLES RIVER	UPPER BASIN	004	5/14/2025	B		0	0	0	18.512	0.24	7.03	75.2	0.491	7.38	6.76	

Region	Subregion	Station	Day/Time (EST)	Surface or Bottom	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)
MYSTIC/ALEWIFE	ALEWIFE BROOK	174	5/13/2025	S	0.1	0	0	0								
MYSTIC/ALEWIFE	ALEWIFE BROOK	174	6/3/2025	S	0.1	0	0	0								
MYSTIC/ALEWIFE	ALEWIFE BROOK	174	6/11/2025	S	0.1	0	0.15	0.16								
MYSTIC/ALEWIFE	ALEWIFE BROOK	174	6/18/2025	S	0.1	0	0.05	0.05								
MYSTIC/ALEWIFE	ALEWIFE BROOK	174	6/26/2025	S	0.1	0	0	0								
MYSTIC/ALEWIFE	ALEWIFE BROOK	174	7/14/2025	S	0.1	0	0	0								
MYSTIC/ALEWIFE	ALEWIFE BROOK	174	7/22/2025	S	0.1	0	0	0.2								
MYSTIC/ALEWIFE	ALEWIFE BROOK	174	7/24/2025	S	0.1	0	0	0								
MYSTIC/ALEWIFE	ALEWIFE BROOK	174	8/7/2025	S	0.1	0	0	0								
MYSTIC/ALEWIFE	ALEWIFE BROOK	174	8/14/2025	S	0.1	0.24	0.24	0.24								
MYSTIC/ALEWIFE	ALEWIFE BROOK	174	8/21/2025	S	0.1	0	0.24	0.24								
MYSTIC/ALEWIFE	ALEWIFE BROOK	174	9/10/2025	S	0.1	0	0	0								
MYSTIC/ALEWIFE	ALEWIFE BROOK	174	9/18/2025	S	0.1	0.11	0.12	0.12								
MYSTIC/ALEWIFE	ALEWIFE BROOK	174	9/24/2025	S	0.1	0.11	0.11	0.11								
MYSTIC/ALEWIFE	ALEWIFE BROOK	174	10/1/2025	S	0.1	0	0	0								
MYSTIC/ALEWIFE	ALEWIFE BROOK	174	10/8/2025	S	0.1	0.85	0.85	0.85								
MYSTIC/ALEWIFE	ALEWIFE BROOK	174	10/9/2025	S	0.1	0	0.85	0.85								
MYSTIC/ALEWIFE	ALEWIFE BROOK	174	10/16/2025	S	0.1	0	0	0.3								
MYSTIC/ALEWIFE	ALEWIFE BROOK	174	10/23/2025	S	0.1	0	0.41	0.41								
MYSTIC/ALEWIFE	ALEWIFE BROOK	074	4/9/2025	S	0.1	0	0.12	0.25	7.292	0.59	13.55	112.8	1.173	7	7.7	
MYSTIC/ALEWIFE	ALEWIFE BROOK	074	4/17/2025	S	0.1	0	0	0.08	10.729	0.6	5.83	52.7	1.199		7.16	
MYSTIC/ALEWIFE	ALEWIFE BROOK	074	4/30/2025	S	0.1	0	0	0	16.468	0.64	10.1	103.7	1.267	3.51	7.46	
MYSTIC/ALEWIFE	ALEWIFE BROOK	074	5/13/2025	S	0.1	0	0	0	17.366	0.51	6.69	70	1.034	13.16	7.05	
MYSTIC/ALEWIFE	ALEWIFE BROOK	074	6/3/2025	S	0.1	0	0	0	18.931	0.49	0.4	4.3	0.99		6.86	
MYSTIC/ALEWIFE	ALEWIFE BROOK	074	6/11/2025	S	0.1	0	0.15	0.16	19.573	0.47	0.17	1.9	0.954	24.82	6.79	
MYSTIC/ALEWIFE	ALEWIFE BROOK	074	6/18/2025	S	0.1	0	0.05	0.05	19.723	0.49	1.72	18.9	0.995		6.87	
MYSTIC/ALEWIFE	ALEWIFE BROOK	074	6/26/2025	S	0.1	0	0	0	21.292	0.56	1.98	22.4	1.119	22.37	7.01	
MYSTIC/ALEWIFE	ALEWIFE BROOK	074	7/14/2025	S	0.1	0	0	0	23.759	0.54	2.99	35.5	1.098	7.64	6.93	
MYSTIC/ALEWIFE	ALEWIFE BROOK	074	7/22/2025	S	0.1	0	0	0.2	22.397	0.5	1.04	12	1.009		6.95	
MYSTIC/ALEWIFE	ALEWIFE BROOK	074	7/24/2025	S	0.1	0	0	0	22.323	0.52	0.99	11.4	1.046	23.24	6.99	
MYSTIC/ALEWIFE	ALEWIFE BROOK	074	8/7/2025	S	0.1	0	0	0	20.861	0.49	5.86	65.8	0.987		7.06	
MYSTIC/ALEWIFE	ALEWIFE BROOK	074	8/14/2025	S	0.1	0.24	0.24	0.24	23.36	0.52	4.71	55.5	1.061	12.53	7.06	
MYSTIC/ALEWIFE	ALEWIFE BROOK	074	8/21/2025	S	0.1	0	0.24	0.24	18.313	0.43	5.8	61.8	0.874	2	7.2	
MYSTIC/ALEWIFE	ALEWIFE BROOK	074	9/10/2025	S	0.1	0	0	0	18.109	0.47	6.99	74.2	0.943		6.97	
MYSTIC/ALEWIFE	ALEWIFE BROOK	074	9/18/2025	S	0.1	0.11	0.12	0.12	18.56	0.46	4.09	43.8	0.927	7.4	7	
MYSTIC/ALEWIFE	ALEWIFE BROOK	074	9/24/2025	S	0.1	0.11	0.11	0.11	18.644	0.54	4.08	43.8	1.079		6.99	
MYSTIC/ALEWIFE	ALEWIFE BROOK	074	10/1/2025	S	0.1	0	0	0	14.653	0.53	3.8	37.5	1.057	6.21	7.03	
MYSTIC/ALEWIFE	ALEWIFE BROOK	074	10/8/2025	S	0.1	0.85	0.85	0.85								
MYSTIC/ALEWIFE	ALEWIFE BROOK	074	10/9/2025	S	0.1	0	0.85	0.85	15.017	0.47	2.66	26.5	0.948		6.78	
MYSTIC/ALEWIFE	ALEWIFE BROOK	074	10/16/2025	S	0.1	0	0	0.3	12.479	0.48	7.46	70.2	0.965	3.43	7.46	
MYSTIC/ALEWIFE	ALEWIFE BROOK	074	10/23/2025	S	0.1	0	0.41	0.41								
MYSTIC/ALEWIFE	ALEWIFE BROOK	277	4/9/2025	S	0.1	0	0.12	0.25	5.954	0.41	12.38	99.6	0.841	4.85	7.52	
MYSTIC/ALEWIFE	ALEWIFE BROOK	277	4/17/2025	S	0.1	0	0	0.08	9.219	0.58	11.49	100.2	1.156		7.55	
MYSTIC/ALEWIFE	ALEWIFE BROOK	277	4/30/2025	S	0.1	0	0	0	15.926	0.58	11.49	91.9	1.166	3.33	7.66	
MYSTIC/ALEWIFE	ALEWIFE BROOK	277	5/13/2025	S	0.1	0	0	0	15.937	0.46	7.64	77.5	0.933	9.48	7.26	
MYSTIC/ALEWIFE	ALEWIFE BROOK	277	6/3/2025	S	0.1	0	0	0	15.917	0.51	5.83	59.2	1.028		7.28	
MYSTIC/ALEWIFE	ALEWIFE BROOK	277	6/11/2025	S	0.1	0	0.15	0.16	17.624	0.49	4.25	44.7	0.987	8.95	6.92	
MYSTIC/ALEWIFE	ALEWIFE BROOK	277	6/18/2025	S	0.1	0	0.05	0.05	19.193	0.4	2.49	27	0.805		6.98	
MYSTIC/ALEWIFE	ALEWIFE BROOK	277	6/26/2025	S	0.1	0	0	0	21.436	0.57	2.26	25.7	1.151	3.99	7.06	
MYSTIC/ALEWIFE	ALEWIFE BROOK	277	7/14/2025	S	0.1	0	0	0	22.289	0.53	2.41	27.8	1.079	9.09	6.89	
MYSTIC/ALEWIFE	ALEWIFE BROOK	277	7/22/2025	S	0.1	0	0	0.2	19.914	0.5	3.71	40.9	1.014		6.88	
MYSTIC/ALEWIFE	ALEWIFE BROOK	277	7/24/2025	S	0.1	0	0	0	20.362	0.53	3.82	42.5	1.059	8.01	7.08	
MYSTIC/ALEWIFE	ALEWIFE BROOK	277	8/7/2025	S	0.1	0	0	0	19.617	0.52	4.68	51.2	1.053		7.11	
MYSTIC/ALEWIFE	ALEWIFE BROOK	277	8/14/2025	S	0.1	0.24	0.24	0.24	23.118	0.54	2.57	30.1	1.083	6.98	6.93	
MYSTIC/ALEWIFE	ALEWIFE BROOK	277	8/21/2025	S	0.1	0	0.24	0.24	17.093	0.43	3.78	39.3	0.863	0.85	7.13	
MYSTIC/ALEWIFE	ALEWIFE BROOK	277	9/10/2025	S	0.1	0	0	0	17.379	0.47	5.61	58.6	0.942		7.01	
MYSTIC/ALEWIFE	ALEWIFE BROOK	277	9/18/2025	S	0.1	0.11	0.12	0.12	18.249	0.39	2.95	31.3	0.801		6.91	
MYSTIC/ALEWIFE	ALEWIFE BROOK	277	9/24/2025	S	0.1	0.11	0.11	0.11	18.444	0.51	4.74	50.7	1.025		7.06	
MYSTIC/ALEWIFE	ALEWIFE BROOK	277	10/1/2025	S	0.1	0	0	0	14.327	0.53	4.25	41.7	1.062	2.72	7.05	
MYSTIC/ALEWIFE	ALEWIFE BROOK	277	10/8/2025	S	0.1	0.85	0.85	0.85								
MYSTIC/ALEWIFE	ALEWIFE BROOK	277	10/9/2025	S	0.1	0	0.85	0.85	15.165	0.45	4.88	48.7	0.911		6.86	
MYSTIC/ALEWIFE	ALEWIFE BROOK	277	10/16/2025	S	0.1	0	0	0.3	11.942	0.48	6.74	62.6	0.964	4.07	7.09	
MYSTIC/ALEWIFE	ALEWIFE BROOK	277	10/23/2025	S	0.1	0	0.41	0.41								
MYSTIC/ALEWIFE	ALEWIFE BROOK	172	4/9/2025	S	0.1	0	0.12	0.25	5.792	0.6	12.42	99.7	1.207	3.86	7.56	
MYSTIC/ALEWIFE	ALEWIFE BROOK	172	4/17/2025	S	0.1	0	0	0.08	9.178	0.63	11.47	100.1	1.258		7.52	
MYSTIC/ALEWIFE	ALEWIFE BROOK	172	4/30/2025	S	0.1	0	0	0	15.112	0.01	7.02	69.8	0.021	2.75	6.93	
MYSTIC/ALEWIFE	ALEWIFE BROOK	172	5/13/2025	S	0.1	0	0	0	15.912	0.53	7.76	78.7	1.071	6.26	7.16	
MYSTIC/ALEWIFE	ALEWIFE BROOK	172	6/3/2025	S	0.1	0	0	0	15.856	0.53	5.85	59.3	1.073		7.27	
MYSTIC/ALEWIFE	ALEWIFE BROOK	172	6/11/2025	S	0.1	0	0.15	0.16	17.556	0.49	4.74	49.7	0.988	3.42	6.92	

Region	Subregion	Station	Day/Time (EST)	Surface or Bottom	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)
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	3/11/2025	S	0.1	0	0	0	4.234	22.62	11.76	105.1	36.528	3.97	8.16	4.2
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	3/11/2025	B	15.8	0	0	0	3.164	31.76	11.27	104.3	49.987	4.56	8.15	
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	3/25/2025	S	0.1	0	0.79	0.79	5.71	25.98	11.81	111.9	41.217	4.11	8.12	5.5
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	3/25/2025	B	13.4	0	0.79	0.79	5.392	31.26	11.49	111.9	48.826	9.72	8.09	
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	4/2/2025	S	0.1	0.07	0.34	0.57	9.091	9.01	12.55	115.3	15.451	5.41	8.04	1.7
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	4/2/2025	B	11.3	0.07	0.34	0.57	5.588	30.93	11.13	108.6	48.316	5.49	8.06	
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	4/15/2025	S	0.1	0.08	0.08	0.16	8.933	17.37	10.52	101.7	28.314	4.78	7.89	3
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	4/15/2025	B	11.9	0.08	0.08	0.16	6.272	30.46	9.67	95.6	47.544	1.99	7.93	
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	5/7/2025	S	0.1	0.02	0.29	1.04	14.85	17.45			28.259	5.29	7.9	1
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	5/7/2025	B	14.6	0.02	0.29	1.04	8.699	30.38			47.13	5.88	7.84	
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	5/21/2025	S	0.1	0	0	0	12.046	23.88	9.2	99.3	37.686	4.99	7.92	1.7
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	5/21/2025	B	10.9	0	0	0	11.502	29.97	8.73	96.8	46.318	6.6	7.93	
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	6/4/2025	S	0.1	0	0	0	16.395	25.61	9.79	116.9	40.027	1.84	8.05	1.6
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	6/4/2025	B	13.2	0	0	0	10.239	30.04	8.33	89.9	46.505	6.59	7.92	
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	6/16/2025	S	0.1	0	0	0.02	18.26	22.63	12.36	150.3	35.787	3.81	8.36	0.7
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	6/16/2025	B	11	0	0	0.02	12.15	29.99	8.42	94.6	46.303	4.1	7.92	
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	7/2/2025	S	0.1	0	0.17	0.17	19.448	27.87	8.81	113	43.186	9.05	8.02	2.5
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	7/2/2025	B	13.5	0	0.17	0.17	13.939	30.19	6.12	71.5	46.501	12.16	7.79	
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	7/18/2025	S	0.1	0	0	0	18.235	30.01	6.29	79.9	46.164	3.97	7.69	1.8
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	7/18/2025	B	10.8	0	0	0	14.699	31.11	7.22	86.1	47.744	5.09	7.87	
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	8/6/2025	S	0.1	0	0	0	20.916	24.29	8.14	105.1	38.163	12.5	7.92	1.5
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	8/6/2025	B	14.2	0	0	0	15.548	30.93	5.04	61.1	47.469	13.23	7.59	
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	8/20/2025	S	0.1	0.24	0.24	0.24	19.554	30.02	8.85	115.3	46.182	11.42	8.02	2
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	8/20/2025	B	13	0.24	0.24	0.24	17.536	30.89	5.53	69.6	47.385	10.71	7.7	
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	9/9/2025	S	0.1	0	0	0.79	19.55	28.07	7.99	102.8	43.467	3.3	7.96	2
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	9/9/2025	B	15.3	0	0	0.79								
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	9/23/2025	S	0.1	0	0	0	18.837	29.98	8.49	109.1	46.123	6.91	7.9	2.3
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	9/23/2025	B	13.5	0	0	0	17.121	31.02	4.86	60.7	47.563	7.85	7.54	
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	10/7/2025	S	0.1	0	0	0	18.509	29.92	8.23	105	46.043	4.52	7.94	2
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	10/7/2025	B	16.3	0	0	0	16.944	31.26	4.54	56.7	47.904	6.21	7.67	
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	10/28/2025	S	0.1	0	0	0	13.451	29.77	7.85	90.5	45.933	4.15	7.82	1.8
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	10/28/2025	B	11.7	0	0	0	13.532	31.06	7.13	83.1	47.721	6.72	7.88	
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	11/5/2025	S	0.1	0.02	0.02	0.07	11.476	29.41	8.48	93.7	45.538	9.86	7.82	3.2
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	11/5/2025	B	12.9	0.02	0.02	0.07	12.034	30.96	7.95	89.7	47.669	12	7.83	
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	12/4/2025	S	0.1	0	0.03	0.7	6.915	29.1	10.01	99.6	45.525	9.46	8.03	2.6
MYSTIC/ALEWIFE	MYSTIC MOUTH	137	12/4/2025	B	16.2	0	0.03	0.7	7.375	31.33	9.3	94.9	48.62	11.36	8.02	



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