



Proposal to Reclassify Water Quality in the Lower Presumpscot River from Class C to Class B

Friends of the Presumpscot River
And American Rivers
June 2024

1. **Waterbody Name:** Presumpscot River in Westbrook, Falmouth, and Portland
2. **Location of proposed change in classification:** Saccarappa Falls to Head of Tide at Presumpscot Falls. See *Appendix 1* for map.
3. **Write a brief statement that justifies why the waterbody should be considered for classification change.**

About this proposal:

The goal of this proposal is to implement permanent protections for the lower river beginning no later than January 1, 2028.

Friends of the Presumpscot River (FOPR) and American Rivers (AR) request that the **Maine water quality classification of the lower Presumpscot River from Saccarappa Falls to Presumpscot Falls be changed from Class C to Class B.** See *Appendix 2* for Maine Statute marked up with the proposed change from Class C to Class B.

Fit assessment with Clean Water Act (CWA): In the CWA, upgrades in classification are seen as aspirational, based on trending, and the CWA calls for reclassification as a body of water approaches the quality required for its new classification. So, the Clean Water Act, in part, is designed to assist water bodies in meeting a higher classification. The body of water must have the potential to achieve the higher standards, and there must be intent, plans, and efforts to do so. The lower Presumpscot River clearly meets CWA criteria for reclassification from Class C to Class B.

NOTE: If DEP is unwilling to recommend reclassification at this time, we request DEP recommend making permanent the current temporary moratorium on new direct discharges. See *Appendix 2* for Maine Statute including the moratorium. See also in *Appendix 2* the statute permanently banning new direct discharges into the Presumpscot from Pleasant River confluence to Route 202, which has been in effect since 1999. To the best of our knowledge, this permanent ban has proven effective and without controversy.



Examples of changes that have contributed to the Positive Trend in Water Quality:

There have been many positive changes to improve the health and productivity of the Presumpscot River since the Clean Water Act passed in 1972. Improvements include water quality, biological health, habitat restoration, protections through shoreland zoning, dam removals, creation of fishways and improved runs of migratory fish species, and improvement of requirements for hydropower dams to install fish passage based on returns.

With the removal of Smelt Hill Dam (2002) and Saccarappa Dam (2019) approximately 12 of the last 13 miles of the Presumpscot River now flow free. The Cumberland Mills Dam impoundment in Westbrook, at about a mile long, is the only section that is not free flowing. Free flowing waters are a key need for restored riverine habitat, and the lower half of the river is doing much better than the fully impounded upper half of the river whence its waters come. Free flowing means water in the lower river breathes better than the upper river to retain and improve its level of dissolved oxygen. Waters coming over Mallison Falls Dam and through its power station reach the estuary in less time than it took when those waters were slowed by the Saccarappa and Smelt Hill impoundments. So, in the critical spring and summer months, they no longer warm and fester in those impoundments and create improved aquatic habitat and connectivity for migratory and resident fish species.

Within the past five years:

Friends of the Presumpscot River submitted a proposal to reclassify the lower river from Class C to Class B in 2020 in order to protect the level of water quality that has been achieved through several decades of effort by the state, watershed municipalities, Friends of the Presumpscot River, Presumpscot River Watershed Coalition, Portland Water District, and other stakeholders. Maine DEP, in a very close call, rejected the proposal, and Maine BEP deadlocked on an effort to send it to the legislature anyway for consideration.

Saccarappa Dam was removed in 2019, and a double Denil fish ladder was installed and activated at Saccarappa. This has opened up 5 miles of previously blocked main stem habitat and the entire Little River system. Anadromous fish that enter the river in springtime can and do now swim up past Saccarappa and spawn in the mainstem as far as Mallison Falls Dam or in the Little River.

The Portland Water District has completed an upgrade to the aeration system at the Westbrook/Gorham Regional Treatment Facility. While designed to meet the current permit conditions, the effluent BOD and TSS loadings are expected to decrease slightly. (Source: PWD)

Dissolved Oxygen (DO) in the lower Presumpscot River today meets Class B standards almost all of the time and greatly exceeds Class C requirements yet only gets Class C protection. This leaves approximately 30% of its dissolved oxygen at risk under the Maine DEP's Antidegradation Policy. This 30% of DO is often referred to as "available assimilative capacity" and is available for new discharge licenses until there is no available assimilative



capacity left in the lower river, at which time it would barely meet the Class C DO standard of 5.0 ppm. Better protection is needed.

In 2023, Friends of the Presumpscot River proposed, and the Maine Legislature approved, a temporary moratorium on new point source discharges in the Class C section of the river. This helps ensure that lower river water quality does not backslide while stakeholders work together on a permanent water quality protection plan for the lower river. The moratorium lasts until January 1, 2028.

Current and Future actions that will further the Positive Trend in Water Quality

See also Sections 4 and 5 of this document for more improvement efforts

Relevant current regulatory actions throughout the watershed that have direct relationship to supporting the continuing trend of meeting Class B standards in the lower reach include:

- MS4 permitting requirements for Windham, Gorham, Westbrook, Falmouth and Portland. While the stormwater plans and minimum control measures are not designed to meet specific numerical or narrative standards, their implementation demonstrates that progress toward Class B standards will continue and will not backslide.
- CSO long-term control plans governed by state and federal requirements in Westbrook, Portland, and Portland Water District. While CSO long term control plans are designed to reduce the number and volume of overflow events they are not designed to attain specific numeric standards in the way a discharge permit for a wastewater treatment outfall. The dramatic reduction in the number and volume of overflows into the watershed over the last twenty years, with work still underway on the communities plans, demonstrates that the current trend toward attainment of Class B bacteria standards will continue and will not backslide.
- State and local stormwater regulations for land-based development.
- Statewide bacteria and impervious cover TMDLs that govern the watershed, particularly those Class B tributaries upstream of the mainstem. These two types of TMDLs have continued to drive improvements in water quality throughout the watershed and can reasonably be considered as supporting the trend toward attainment of Class B standards in the lower river.

EPA Superfund Site cleanup at Keddy Mill between Mallison Falls and Little Falls. Work on a mitigation plan began in 2023 and is scheduled for completion in 2027. Primary toxins being removed from the river and adjacent land are PCBs and Dioxins. Dioxins present in the river bottom include the 2378 TCCD isomer. After work is completed, it will take a few more years before all life forms in this section of the river are fully rid of these toxins.



The City of Westbrook recently received \$4 million in funding to clean up brownfields adjacent to the north bank of the river as it flows through downtown Westbrook. This is part of a larger plan to complete the long-envisioned River Walk Loop for public enjoyment of the thriving Presumpscot River as it flows through the city.

FOPR recommends and anticipates a significant reduction to the amount of effluent Sappi is allowed to discharge when their expired NPDES permit is renewed. With no pulping operation and reductions in production, Sappi has been using only a small percentage of its allowable discharge in the expired permit. The new permit should reduce allowed discharge commensurate with Sappi's current and planned scope of work and need for discharge. If and when realized, even if not to the extent we recommend, this will further safeguard the lower river from backsliding in water quality.

Fish passage is required in the licenses for Mallison and Little Falls dams once trigger counts for fish are met at Saccarappa. At a minimum, fishways will be installed, which will further the fisheries recovery. It is also possible, if not probable, that the owner of these minor hydro projects will decide to remove one or both of these dams, in which case, it would add about 2 more miles of free-flowing river, reduce the time it takes water to get to Casco Bay, and reduce time water festers and warms in impoundments. Outcome: better water quality, colder water, and improved and increased aquatic habitat for resident and migratory fish species.

Class B Lower Presumpscot benefits the Estuary, Casco Bay, and the Gulf of Maine:

The Presumpscot river drains 2/3rds of the Casco Bay watershed and delivers the largest loads of freshwater to this designated "Estuary of National Significance." Fresh water nourishes and creates the estuarine conditions. The closing of spawning habitat in Maine's rivers through damming and pollution is a known factor in the decline of Gulf of Maine fisheries. Restoring and protecting lower river water quality will help to rebuild spawning runs for native anadromous species, which in turn will have a positive impact on fish populations in the Gulf of Maine.

4. State how the proposed change will affect other users of the waterbody, for example holders of wastewater or stormwater discharge permits or holders of land-development permits.

Growing numbers of anglers, paddlers, hikers, and swimmers in and along the lower Presumpscot River will benefit from this further assurance of healthy waters. The City of Westbrook continues to embrace the river as an asset and area of focus to engage the public with the river through trails, parks, access points, and events. Similar revitalization efforts in Portland include the Presumpscot River Preserve and Riverton Park. To have such a natural resource in the most densely populated part of Maine is a significant benefit to the region and the state.



Migratory fish, perhaps the most important users of the river, will be positively impacted by this further assurance that they are returning to the healthy waters upon which their lives depend.

There are two current discharges into this reach: Sappi and Portland Water District. Based on the most recent DEP river model (Peter Newkirk, 2011) and recent and ongoing improvements, we expect that the lower Presumpscot River can achieve Class B standards with no adjustments to their current licensed loads. PWD's own study showed the upgrade would not impact them. Regarding Sappi, as stated in Section 3 above, the Sappi discharge permit expired in July 2023. Maximum discharge allowed under that permit greatly exceeds Sappi's actual discharge and needs. Sappi's permit could (and should) be reduced without affecting current operations.

5. Provide water quality data, if available (including source of data), that documents the attainment status of the candidate waterbody relative to the designated uses and criteria of the proposed classification.

See Appendix 3 for 2019 - 2023 data and analysis for the Lower Presumpscot River.

DO and E. coli Data Source: Presumpscot Regional Land Trust (PRLT).

2021 Continuous DO Data Source: Friends of Casco Bay (FOCB).

Analysis by Casco Bay Estuary Partnership accessing the PRLT and FOCB data through DEP EGAD.

Aquatic Life Data and Analysis provided by MDEP.

Worth Noting:

Dissolved Oxygen

Based on Presumpscot Regional Land Trust data, there were only 4 occasions in 5 years when DO did not meet the 7.0 ppm Class B standard. In each of those cases the 75% saturation Class B standard was met. In the one instance where the 75% saturation standard was not met, the ppm standard was exceeded at 7.35 ppm. This last instance is suspect and likely an error in the calculation of saturation.

Three of the four excursions below 7.0 over the five-year period occurred on two dates: 7/23/22 and 8/6/22. CBEP analysis also includes continuous monitoring data from Friends of Casco Bay during the summer of 2022 to shed more light on this single period of excursions in the five-year report.

Note: Maine DEP has done some sporadic water quality testing within the past 5 years which is not included here. That testing also showed a few short-term, minor DO excursions below 7.0 ppm.



E. coli

E. coli levels in the Presumpscot River are generally good but spike to unacceptable levels after certain rain events. The primary reasons for the spikes are combined sewer overflows (CSOs) in Westbrook, and impaired tributaries in the upper Presumpscot River.

For the five-year period, 2019 – 2023, 74% of E. coli samples in the Class C section of the river met the Class B geometric mean standard of less than 64 MFU/100 mL. All four lower river sampling sites met the geometric mean standard for Class B in 2019 and 2022. All four sites failed the standard in 2021. All geometric means for 2020 and 2023 came in close to 64 MFU/100 mL but straddled the line – some above and some below.

The lower river today seems to be meeting Class B standards except for certain rain events. We have made tremendous progress over the years and are still trending in the right direction for E. coli. Becoming Class B will help focus resources and attention on taking the final strides necessary to meet Class B standards at all times, both for the lower river and for the entire river as well.

Efforts already underway to further reduce E. coli include:

The City of Westbrook continues to make progress on eliminating Combined Sewer Overflows (CSOs). The remedy is a combination of ongoing repairs to infiltration in the existing pipes and building a large holding tank to keep sewage out of the river during storm events, then processing that wastewater over time through Portland Water District's Westbrook Wastewater Treatment Plant. This will eliminate, or greatly reduce, temporary spikes in E. coli levels following significant rain events. This project is key to bringing the lower river into ongoing compliance with Class B standards for E. coli. Westbrook expects to complete the project in 2028 – perfect timing for this reclassification.

Improving water quality of the impaired streams that flow into the upper Presumpscot River is a high priority for EPA, DEP, involved municipalities, and other stakeholders such as Cumberland County Soil & Water Conservation District, and Friends of the Presumpscot River. These impaired tributaries are covered by the statewide bacteria TMDL which is governing to Class B standards in these tributaries. There has never before been a greater focus or level of available resources to address this issue than there is now. It is a difficult issue, but now is the time for action and remedies. Reclassifying the lower river to Class B will reinforce this effort and help make the improvements possible, and success at meeting Class B standards in the upper river tributaries will significantly improve water quality in the Presumpscot River.



The uppermost point source discharge into the Presumpscot system is the wastewater discharge from the K-12 Windham Schools campus into the Pleasant River near its confluence with the Presumpscot River. Funding for the building of a new middle school on land adjacent to the campus was approved by Windham voters in the June 2024 election. Plans for the middle school include piping effluent to the new PWD North Windham Wastewater Treatment Plant. In the past few months, PWD and the Town of Windham have agreed to expand that plan so that wastewater from all of Windham's school system will be piped to the North Windham plant. As a result, the school system will no longer discharge effluent into the Pleasant River.

These three core initiatives, taken together, will dramatically improve E. coli levels, especially during the difficult period following rain events.

Habitat & Aquatic Life Attainment for benthic macroinvertebrates and fish

Lower Presumpscot River character and habitat downstream of Westbrook is very close to being natural again, and we maintain it meets the higher Class B narrative standard “to support all aquatic species indigenous to those waters without detrimental changes in the resident biological community.” With the removal of Smelt Hill Dam, 7 of the 8 miles are free-flowing, and head-of-tide has been restored to its naturally occurring location at Presumpscot Falls. Most of those miles have good riparian buffers. Incoming waters now naturally flow over Saccarappa's upper and lower falls – reoxygenating the water and increasing mean DO to 9.6 ppm at Bridge Street in the summer of 2023.

Fish passage is provided at both Cumberland Mills and Saccarappa. Eel passage is provided throughout the year, with overnight shutdowns of all Presumpscot River hydro projects in fall to facilitate out migration of adults for spawning.

In 2023 Maine DEP conducted biological monitoring at three sites. As of this writing, results are in for two of the sites, with final analysis of the third site expected soon.

The most downstream site, near Falmouth Spur, meets Class B standards for aquatic life.

The middle site, just upstream of Rte. 302 and not far downstream from the 2020 landslide and discharges from Sappi, meets Class C standards.

Note: The biological monitoring site that is not meeting B is close to a highway (Rte. 302). This could be influencing the quality of the data. This site should be investigated for highway contaminants and may not be a representative site for bio monitoring. As such, perhaps results at the site downstream from the highway-proximate site should be given more weight.



It is encouraging to see the most downstream site on the Presumpscot meet Class B standards for Aquatic life. Reclassifying the lower river to Class B will provide additional assurance that the site will continue to meet Class B standards in the future.

American Eels continue to thrive in the Presumpscot River. The lower river has an active commercial Elver Fishery that generates jobs and revenue.

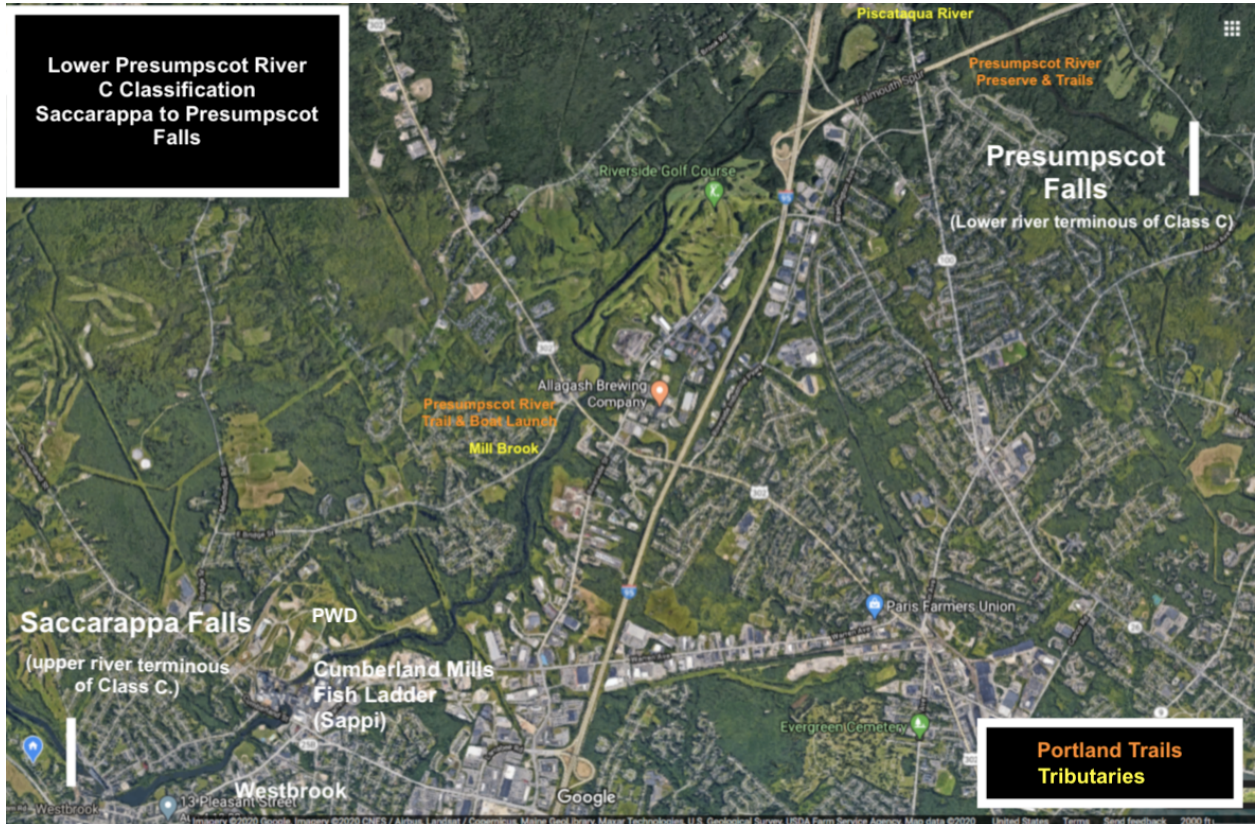
A growing number of anadromous fish including alewife, shad, and blueback herring migrate into the Presumpscot in the spring and are able to go as far as 13 miles upstream and into tributaries and Highland Lake to spawn.

Many other resident and migratory fish can be found in the lower river and in the tidal portion below Presumpscot Falls including Atlantic Salmon, Atlantic and Short nosed Sturgeon, Striped Bass, Tomcod, Rainbow Smelt, Banded Killifish, and Burbot.



APPENDICES

Appendix 1 – Map of Lower Presumpscot River





Appendix 2 – Maine Statute for Water Quality in the Presumpscot River

Statute below is **marked up in red** to indicate change of lower Presumpscot River water quality classification from Class C to Class B.

9. Presumpscot River Basin.

A. Presumpscot River, main stem.

(1) From the outlet of Sebago Lake to its confluence with Dundee Pond - Class A.

(1-A) From the outlet of Dundee Pond to its confluence with the Pleasant River - Class A.

For the purposes of water quality certification of the hydropower project at the Dundee Dam under the Federal Water Pollution Control Act, Public Law 92-500, Section 401, as amended, and licensing modifications to this hydropower project under [section 636](#) and any other licensing proceeding affecting this project, the habitat characteristics and aquatic life criteria of Class A are deemed to be met in the waters immediately downstream and measurably affected by that project if the criteria of [section 465, subsection 3, paragraphs A and C](#) are met.

(2) From its confluence with the Pleasant River to U.S. Route 202 - Class B. Further, there may be no new direct discharges to this segment after January 1, 1999.

(3) From U.S. Route 202 to Saccarappa Falls, also known as Sacarappa Falls - Class B.

(4) From Saccarappa Falls, also known as Sacarappa Falls, to tidewater - ~~Class C~~ **Class B**. For the period beginning October 15, 2023 and ending January 1, 2028, there may be no new direct discharges to this segment except for any new direct storm water discharges licensed under [section 413, section 420-D](#) or [article 6](#). [PL 2023, c. 295, §1 (AMD).]



Appendix 3 – Analysis: Dissolved Oxygen, E. Coli, Aquatic Life

Lower Presumpscot (Class C) Water Quality Data Analysis 2019 – 2023.

ANALYSIS by: Casco Bay Estuary Partnership

DATA SOURCE: Presumpscot Regional Land Trust data as accessed through MDEP EGAD

2024 Analysis of Presumpscot Water Quality in Comparison to Class B Standards

Dissolved Oxygen Class B standards

- Dissolved oxygen may not be less than 7 ppm or 75% saturation, whichever is higher
- Between April and October, E. coli geometric mean may not exceed 64 /100 mL per 90 day interval, or 236 in more than 10% of samples in a 90 day interval

Analysis Framework

This analysis focuses on only the lower portion of the Presumpscot River, below Saccarappa Falls, which is currently classified as Class C. We include only brief discussion and analysis of some of the upper river sites as points of comparison. The Class C portion of the river contains four long-term monitoring sites: P020 (R24-VRMP), P030 (R47-VRMP), P050 (R69-VRMP), and P060 (R76-VRMP). We compared the last five years of water quality data from these sites to the Class B standards. The majority of data included in this analysis comes from Presumpscot Regional Land Trust's long-term volunteer summer monitoring program, but we also include data from a continuous monitoring station that Friends of Casco Bay placed in the lowest reaches of the river, near head of tide, in summer 2022.

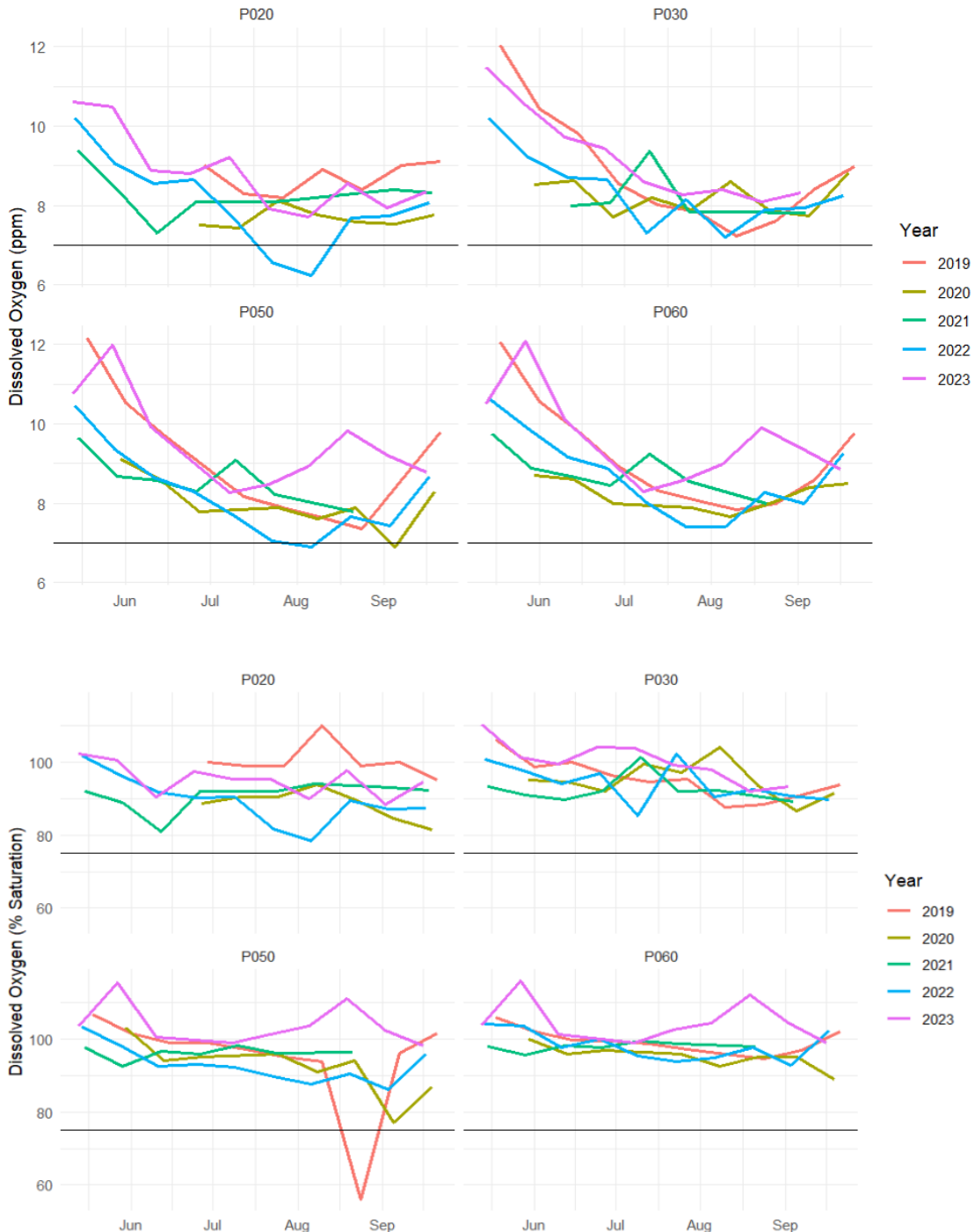
Dissolved Oxygen Results

Lower Presumpscot sites sampled from 2019 – 2023 failed to meet one of the two Class B dissolved oxygen standards (7 ppm or 75% saturation) on only five occasions. In all 5 cases the other standard still met class B criteria.

- At R24 (P020) the sample taken on 7/23/2022 had a DO of 6.57 mg/L but a DO saturation of 81.8% and the 8/6/2022 sample had a DO of 6.24 mg/L but a DO saturation of 78.5%
- At R69 (P050) the sample taken on 9/5/2020 had a DO of 6.9 mg/L but a saturation of 77%, and the 8/6/2022 sample had a DO of 6.90 mg/L but a saturation of 87.6%
- At R69 (P050) in 2019 the DO saturation is 56%, but the DO is 7.35 mg/L. This is an unusual discrepancy between the two reading and is the lowest DO saturation recorded at that site in 14 years of sampling by 20% (next lowest reading is 77%). This point was included in the previous analysis done in 2021 and I believe was discounted.

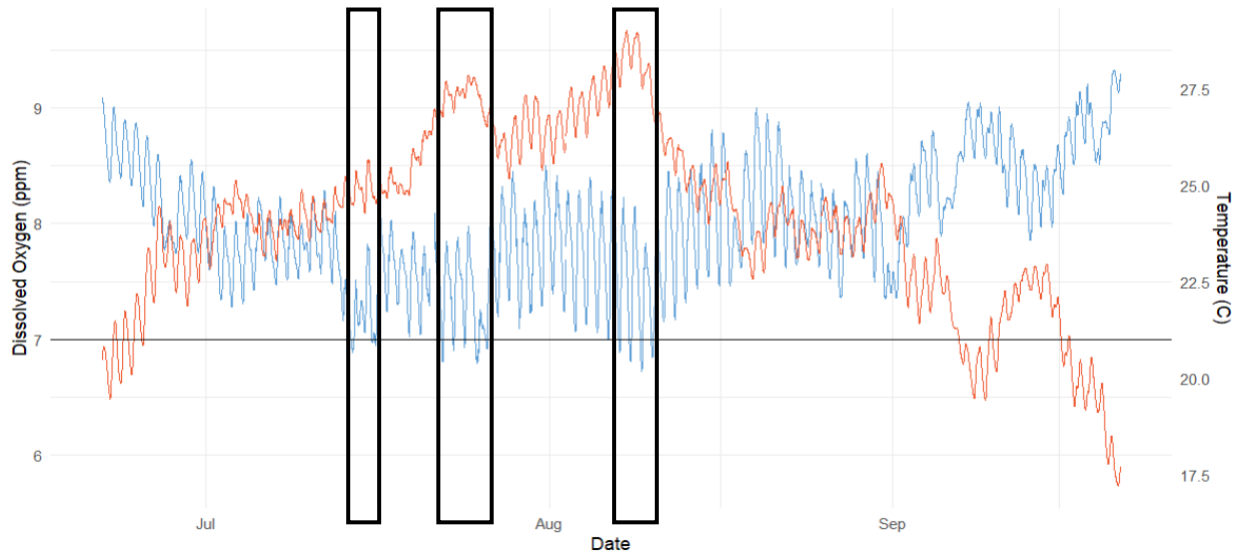


- **DISSOLVED OXYGEN CONCENTRATION (mg/L)** – Other than a few dips in mid-season 2022, DO consistently stays above the 7 ppm standard (horizontal line)
- **DISSOLVED OXYGEN SATURATION** – Other than the sharp drop at one site in 2019, which is not reflected in any other parameters, DO saturation consistently stays above 75% horizontal line.





Friends of Casco Bay had a continuous monitoring station deployed in the lower Presumpscot River in 2022 during the time of the three readings that failed to meet DO standards, so we used the continuous data to get more information on how often and for how long DO failed to meet class B standards.



At this continuous monitoring location there were three time periods in the summer of 2022 where DO consistently dropped just below 7 over a period of a few days: 7/14 – 7/16, 7/22 – 7/26, and 8/7 – 8/10. The latter of these two periods appear to correspond with heat waves, as shown by the orange line on the above graph showing air temperatures over the same time period, as sourced from the local NOAA weather station.

On each of these days DO readings < 7 ppm were initially detected in the early morning (generally 5 – 7 AM) and persisted until anywhere from 9 AM to 4 PM. Days differed in the length of time for which DO was < 7 ppm and in the most extreme case DO was below 7 ppm for 8.5 hours. The lowest DO dropped in the summer of 2022 was 6.72 ppm, and only 11 readings over the course of the summer (out of 8,823) were below 6.80 ppm. So, 99.9% of all readings were above 6.80 ppm. The lowest recorded DO % saturation was 82.7.



Overall DO Data

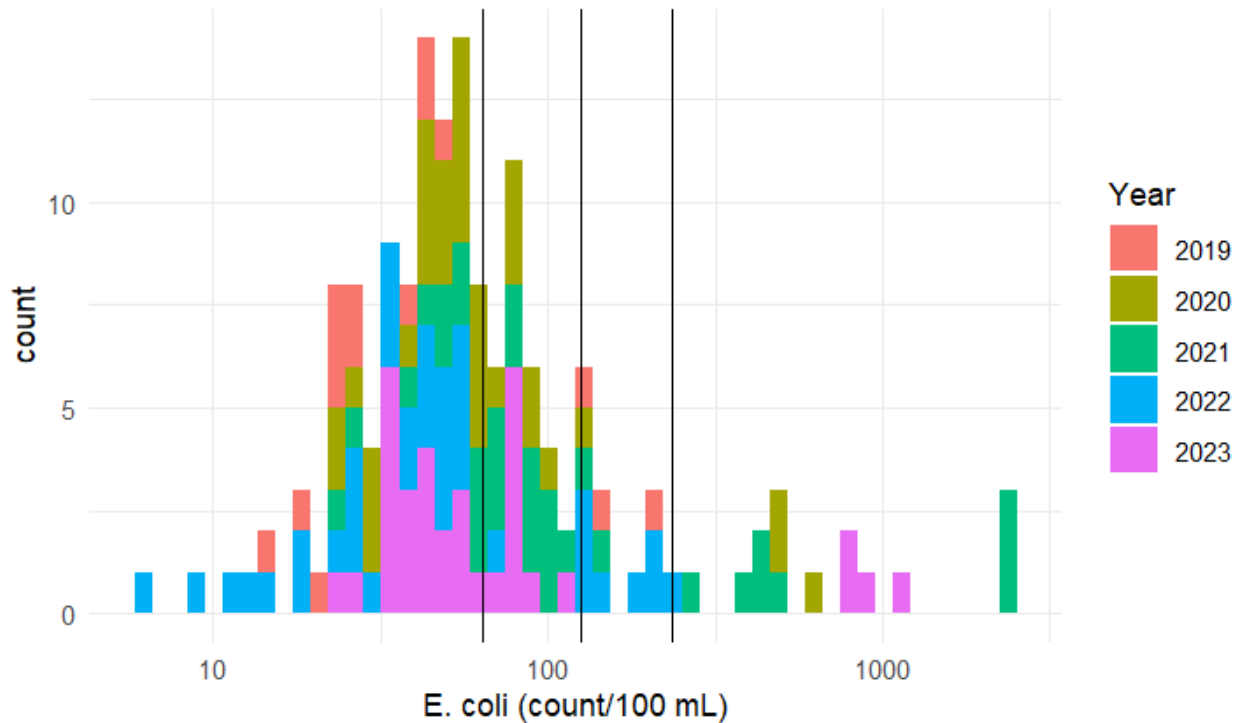
PRLT Site Name	DEP Site Name	Year	Mean DO (mg/L)	Standard Deviation	Minimum DO (mg/L)	Maximum DO (mg/L)	# samples
P020	R24-VRMP	2019	9.09	1.15	8.2	11.8	10
P020	R24-VRMP	2020	7.69	0.22	7.44	8.13	9
P020	R24-VRMP	2021	8.28	0.58	7.3	9.4	8
P020	R24-VRMP	2022	8.05	1.16	6.24	10.21	10
P020	R24-VRMP	2023	8.84	1.01	7.71	10.6	10
P030	R47-VRMP	2019	8.89	1.48	7.22	12.02	10
P030	R47-VRMP	2020	8.22	0.44	7.7	8.83	9
P030	R47-VRMP	2021	8.32	0.72	7.81	9.36	9
P030	R47-VRMP	2022	8.35	0.89	7.21	10.2	10
P030	R47-VRMP	2023	9.20	1.17	8.1	11.46	9
P050	R69-VRMP	2019	9.07	1.49	7.35	12.16	10
P050	R69-VRMP	2020	8.01	0.66	6.9	9.1	8
P050	R69-VRMP	2021	8.61	0.61	7.79	9.64	8
P050	R69-VRMP	2022	8.22	1.11	6.9	10.46	10
P050	R69-VRMP	2023	9.57	1.20	8.28	11.98	9
P060	R76-VRMP	2019	9.19	1.36	7.83	12.06	10
P060	R76-VRMP	2020	8.22	0.38	7.65	8.7	8
P060	R76-VRMP	2021	8.79	0.57	7.98	9.74	8
P060	R76-VRMP	2022	8.69	1.06	7.4	10.63	10
P060	R76-VRMP	2023	9.63	1.18	8.29	12.08	9



E. Coli Results

PRLT visits each of the four monitoring sites along the lower river approximately every two weeks over the summer, for a total of ~9-10 visits per site per summer. This sampling schedule makes it difficult to calculate a meaningful 90-day geometric mean as the relatively low number of data points means one or two extreme values can heavily affect the overall mean. Calculating a 90-day geometric mean also results in values based on only 6-7 samples, so I instead calculated seasonal geometric means to use all available data points. Percent exceedance was calculated on a seasonal basis as many sites have <10 samples over a season, so a single value >236 E. coli /100 mL can cause them to fail to meet Class B standards.

Between 2019 and 2023, 15 samples (out of 229, 6.5%) had E. coli concentrations > 236 MFU/100 mL. These samples were not evenly distributed across years and instead were concentrated in a few years. 60 samples (26%) had E. coli concentrations > 64 MFU/100 mL. Vertical lines indicate classification standards at 64, 128, and 236 MFU/100 mL






E. coli concentrations generally increased from more upriver sampling sites (near Saccarappa Falls) to more downriver sites (near Falmouth spur), but there was considerable annual variation.

- There was a sharp increase in the mean E. coli concentration at all sites in 2021. This seems to be linked to a heavy rain event that occurred on 7/09 (5.92 cm of rain) one day before a sampling event on 7/10.
- Samples collected from the 12 PRLT sites across the river on 7/10/2021 all had elevated E. coli concentrations, with no sites having < 64/ 100 mL (lowest concentration was 88.4/ 100 mL at the most upriver site) and only two sites having <236 E. coli /100 mL (**Table 1**).
- Only three of the four lower river sites were sampled on 7/10 but all of them exceeded the upper test limits for E. coli concentration (>2419.6 /100 mL).
- E. coli concentrations during the rest of the season were similar to other years (usually < 100 MFU /100 mL with occasional events > 300 MFU /100 mL) but this single extreme sample in each site sharply increased geometric means for the 2021 season.
- There was a smaller peak in E. coli in 2023 for similar reasons when a sampling event occurred on 8/19/23 one day after 2.82 cm of rain fell on 8/18.

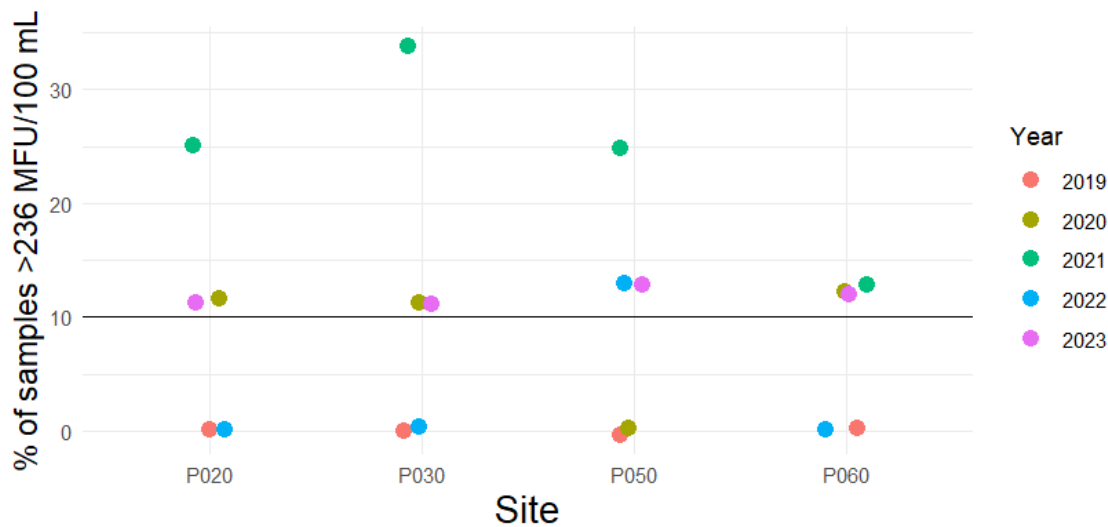
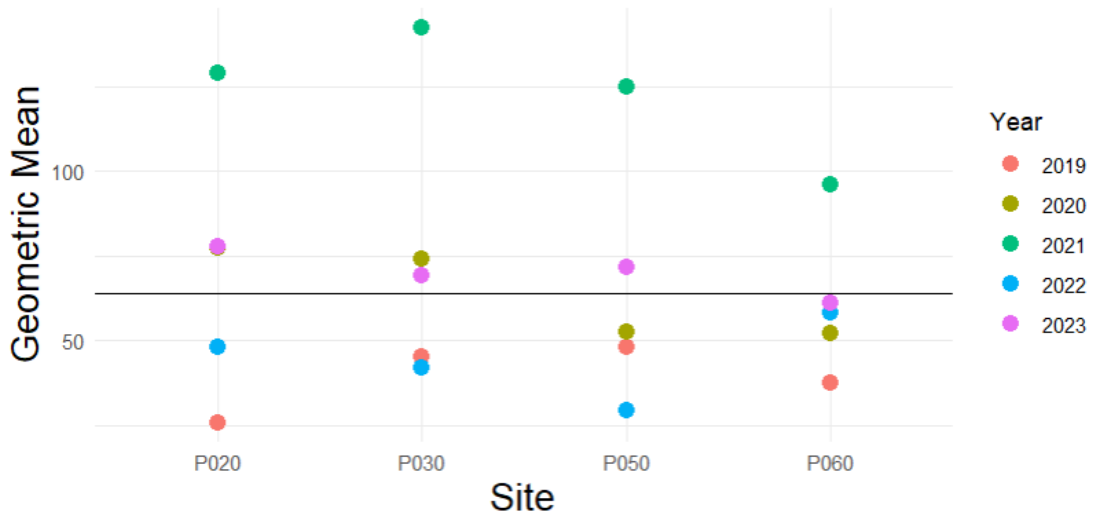
Table 1: E. Coli concentrations at all PRLT sampling sites on 7/10/2021

	Site	E. Coli MFU/100 mL
Upriver  Downriver	R225-VRMP	88.4
	R202-VRMP	365.4
	R195-VRMP	2419.6
	R166-VRMP	107.6
	R157-VRMP	1553.1
	R133-VRMP	2419.6
	R129-VRMP	1553.1
	R81-VRMP	2419.6
	R76-VRMP	2419.6
	R69-VRMP	2419.6
	R47-VRMP	2419.6



E. coli geometric mean (first graph) and % exceedance (second graph). Color distribution shows that fluctuations in E. coli concentrations seem to be more linked to year than to site

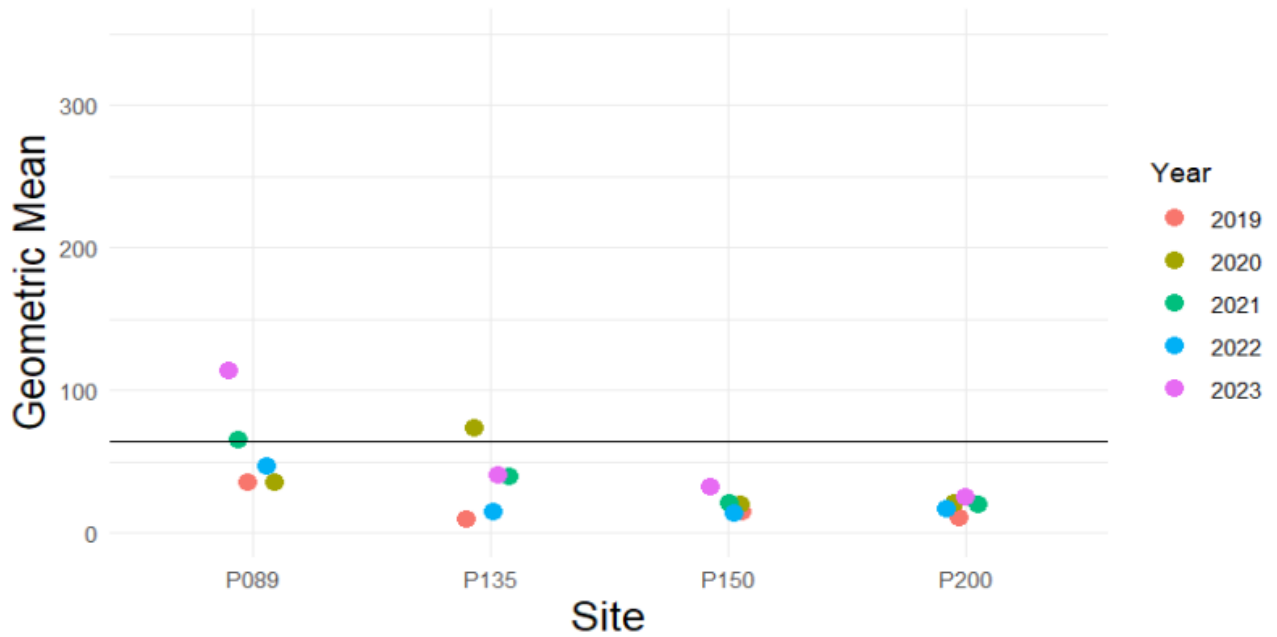
Horizontal lines on graphs showing E. coli geometric means are at 64 MFU/100 mL, horizontal lines on graphs showing % exceedance are at 10%.



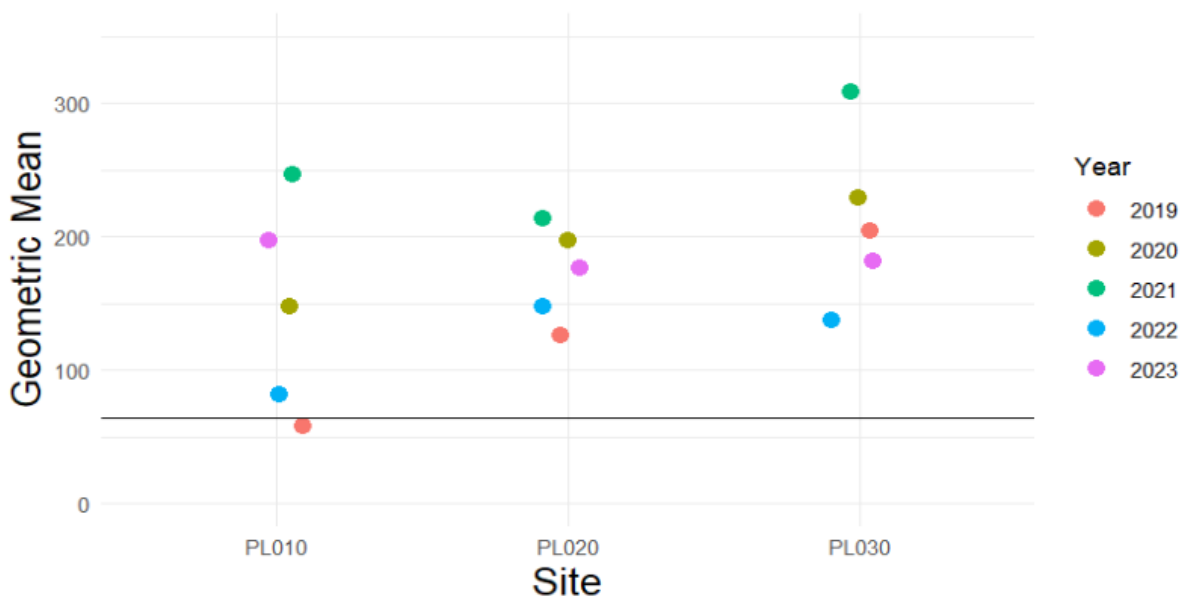
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Geometric mean of *E. coli* (MFU/100 mL) at upriver sites that are Class A (P200 and P150) or Class B (P089 and P135). The Pleasant River enters the Presumpscot between P150 and P135. Horizontal line is at 64 MFU/100mL.



Geometric mean of *E. coli* (MFU/100 mL) at PRLT sites in the Pleasant River. Horizontal line is at 64 MFU/100mL.





Maine DEP Biological Monitoring Program Aquatic Life Classification Attainment Reports

In 2023 Maine DEP conducted biological monitoring at three sites. As of this writing, results are in for two of the sites, with final analysis of the third site expected soon.

Site 1

Location:

DEP S-802
Falmouth
Just upstream of Falmouth Spur
Latitude: 43° 43' 41.520" N
Longitude: 70° 17' 08.042" W
Farthest downstream of the 3 sites tested

Result: **Meets Class B standards**

Link to Full Report:

https://www.maine.gov/dep/gis/datamaps/lawb_biomonitoring/reports/log_3063.pdf

Site 2

Location:

DEP S-72
Westbrook
Just upstream of Forest Avenue (Rte. 302)
Latitude: 43° 42' 08.618" N
Longitude: 70° 19' 32.528" W
Middle site tested

Result: **Meets Class C standards**

Link to Full Report:

https://www.maine.gov/dep/gis/datamaps/lawb_biomonitoring/reports/log_3056.pdf

Site 3

Location:

DEP S-295
Westbrook
About 100 yards downstream of pedestrian bridge in ice disk eddy current
Farthest upstream site tested

Result: **Not yet in. Expected soon.**



Appendix 4 – 2019 Water Quality Monitoring Sites – Full List & Map

Table 5-6-1. Presumpscot River Land Trust sampling sites, ordered from upstream down for the mainstem. (SOURCE: DEP Presumpscot River 2017 Data Report)

Site ID	Organization Site Code	Sample Location	Class
Mainstem (ordered from upstream to downstream)			
Presumpscot River-R225-VRMP	P200	Route 35 Crossing	A
Presumpscot River-R202-VRMP	P170	North Gorham Dam	A
Presumpscot River-R195-VRMP	P160	Dundee Park	A
Presumpscot River-R166-VRMP	P150	Covered Bridge	A
Presumpscot River-R163-VRMP	P140	Presumpscot River	B
Presumpscot River-R161-VRMP	P145	Confluence Pleasant R.	B
Presumpscot River-R157-VRMP	P135	Gambo Park	B
Presumpscot River-R133-VRMP	P110	Route 202	B
Presumpscot River-R129-VRMP	P089	Mallison Road	B
Presumpscot River-R126-VRMP	P080	Presumpscot River	B
Presumpscot River-R81-VRMP	P065	Presumpscot River	B
Presumpscot River-R76-VRMP	P060	Bridge Street	C
Presumpscot River-R69-VRMP	P050	Presumpscot River	C
Presumpscot River-R47-VRMP	P030	Riverton Trolley Park	C
Presumpscot River-R24-VRMP	P020	Blackstrap Road	C
Presumpscot River-R07-VRMP	P015	Overset Road	C

NOTES:

There was no sampling done at PO15 2019 - 2024.

PO65 is the farthest downstream Class B monitoring site. CBEP included this site in some of its data analysis for the 5-year period.



SOURCE: DEP Presumpscot River 2018 Data Report

Maine Department of Environmental Protection

Presumpscot River 2018 Data Report

Presumpscot River Sampling Sites, Mainstem Presumpscot Regional Land Trust

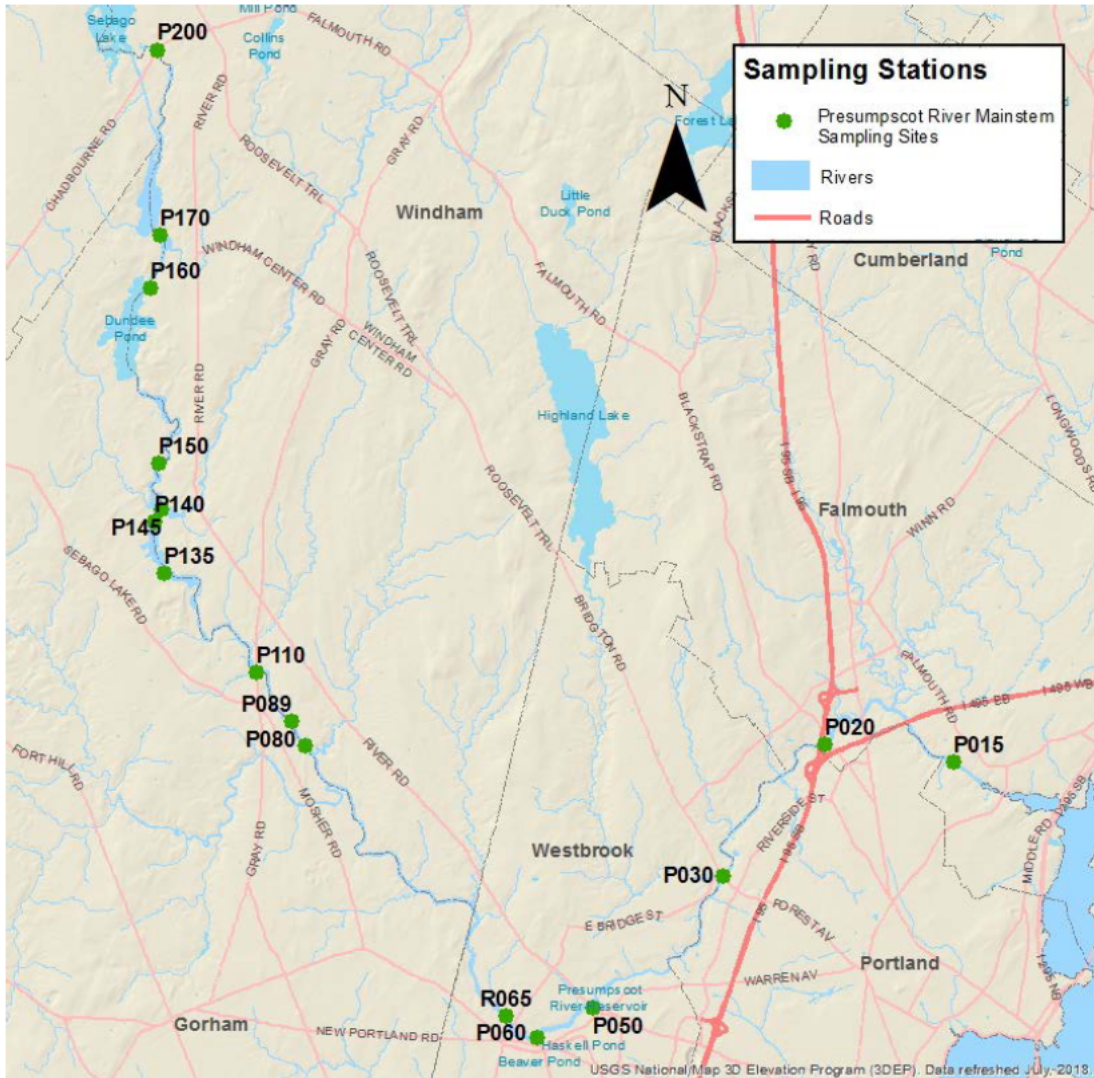


Figure 5-6-1: Map of Presumpscot Regional Land Trust mainstem sampling sites.

Note: No sampling done at PO15 2019 - 2023