



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

Friends of the Presumpscot River
March 2020

1. **Waterbody Name:** Presumpscot River
2. **Location of proposed change in classification:** Saccarappa Falls to Head of Tide at Presumpscot Falls (6.8 miles). See *Appendix 1* for map.
3. **Write a brief statement that justifies why the waterbody should be considered for classification change.**

Friends of the Presumpscot River (FOPR) requests that the **Maine water quality classification of the 6.8-mile 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.

Quantitative: Water Quality today is meeting (and often greatly exceeding) Class B standards for Dissolved Oxygen (DO) and E coli bacteria almost all the time (see *Attachment: Lower Presumpscot 2019 Water Quality Analysis.xlsx* for 2019 data and analysis). DO readings at the 4 lower river sampling stations were all between 7.2 – 12.2 in 2019, averaging 9.1 for the reach. **Out of 114 data points** from those 4 stations in 2019 **only 3 failed Class B standards**, a 56% DO Saturation reading at Cumberland Mills on 8/24 (still, DO was 7.35), and E coli readings of 238.2 and 1046.2 at Riverton and Blackstrap Road respectively on July 13 – a day when removal of Saccarappa dam was underway, three days after an extreme low-flow reading of less than 450cfs on the USGS Gauge 01064118 in Westbrook, and during a week in which Sappi’s weekly Tumblr post of July 15 showed 1.1” of precipitation in Portland.

Qualitative – Habitat: Lower Presumpscot River character and habitat is very close to being natural again. With the removal of Smelt Hill Dam, 6 of the 6.8 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 DO by an average of 0.4 ppm (8.8 above Saccarappa and 9.2 below at Bridge Street), making the water quality better than the Class B reach above Saccarappa and preparing it for the biological oxygen demand of the river’s point-source, licensed discharges at Sappi’s SD Warren mill at Cumberland Mills and the Portland Water District Wastewater Treatment Plant just below it.



At the lowest scoring of four sampling stations in the lower river (Riverton), average DO (8.9) was still better than DO in the Class B waters about to be rejuvenated by flowing over Saccarappa Falls (8.8).

Qualitative – Aquatic Life: Based on the strong quantitative performance of the lower river, and the ever-increasing return of native migratory fish to spawn, we believe the licensed discharges into the lower river are not causing adverse impact to aquatic life in the receiving waters.

“B” is for Balance of Uses: After studying the lower river for 11 years in preparation for this proposal, we believe Class B is what the lower river both deserves and needs today. B is the second-lowest of Maine’s 4 water quality classifications. B uniquely balances industrial and natural uses, will allow existing licensed discharges to continue under their current permits, and, importantly, will ensure healthy waters for the growing runs of anadromous fish (Alewife, Blueback Herring, Shad and eventually Salmon), the ever-more-frequent swimmers and paddlers in the lower river, the growing number of anglers, the commercial elver fishery, and hikers and recreators along the banks. Indeed, the maximum decline in DO in the lower river from the 2 stations above the point-source discharges to the 2 stations below the discharges was just 0.3 ppm, indicating that a doubling of output (and BOD) from those discharges could result in as much as a 0.6 ppm decline, under which circumstance the entire lower river would still have met the Class B DO standard 100% of the time in 2019. We do not expect that maximum license discharges would impact the E coli numbers as neither is a known source of E coli. The only potential impact on discharges that we know of, if the lower river is upgraded from Class C to Class B, is that it might hasten work that is already in the planning stages to abate the Combined Sewer Overflows (CSOs) in the City of Westbrook. The City of Westbrook has expressed some potential concern about this to FOPR, and it should be discussed during the reclassification process.

In-flowing waters are all Class B: The mainstem above Saccarappa is the primary source of water in the lower river and it is Class B. The two classified tributaries entering the lower river, Mill Brook, and the Piscataqua River are both Class B, and Mill Brook has a thriving and growing annual alewife run for their spawning in Highland Lake.

It has been a long path to get here – starting with the Clean Water Act in 1972: Ed Muskie knew what he was doing when he initiated the Clean Water Act. When asked whether America could afford to clean up its rivers, he famously said, “These questions answer themselves.” Since 1992, Friends of the Presumpscot River (FOPR) has been working to restore and protect water quality from the top of the river down to the estuary and to restore native fisheries from the bottom up by making the river passable in addition to improving water quality. Just a few decades ago, the lower river was essentially dead. Stories of the water’s gross toxicity are legion, and at times there was no dissolved oxygen at all. The river wasn’t breathing and could not breathe life into the species for whom the Presumpscot is their home waters. The Presumpscot Jumper, if indeed a unique subspecies of



salmon, is now extinct. Tremendous progress has been made in recent years to reach this point of reclassification today – too many successes to include in this summary statement. See *Appendix 3* for a timeline of progress that has improved water quality over the past 22 years.

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

The Presumpscot Watershed comprises fully 2/3 of the Casco Bay Watershed. Assurance of healthy waters entering the Bay will benefit the work of Friends of Casco Bay and the Casco Bay Estuary Partnership to improve and protect Casco Bay. 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. The degree to which the river’s fish runs are coming back is notable. In 2019 there were 52,000, herring counted as passing the Cumberland Mills fishway. The previous high was 10,146 in 2016. In 2019 there were 55 Shad, up from 0 previously.

We cannot allow lower river water quality to backslide: Having come this far in the Restore phase, it is now critical that we Protect water quality in the Lower Presumpscot River for the future. Not to do so would leave the door open for lower river dissolved oxygen to backslide from its current overall 9.1 average to as low as the Class C standard of 5.0. Upgrading the Lower Presumpscot River to Class B is the protective action that is needed today in order to ensure the entire Presumpscot is truly a “working” river in the future.

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.

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 no adjustments to their current licensed loads will be needed at this time. Migratory fish and eels, 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. And growing numbers of anglers, paddlers, hikers, and swimmers will also benefit from this further assurance of healthy waters. To have such a natural resource in the most densely populated part of Maine is a significant benefit to the region and the state.



- 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 data and analysis for the Lower Presumpscot River. Source: Presumpscot Regional Land Trust

See attached Excel file for full Presumpscot River Water Quality Monitoring Data from 2009 – 2019. Source: Presumpscot Regional Land Trust

- 6. Provide a summary of known human activities in the watershed of the proposed re-classification that might jeopardize attainment of standards of the proposed classification, for example land use altering activities, landfills, hazardous waste sites, wastewater discharges, etc.**

Combined Sewer Overflows (CSO) in Westbrook.

Additional Appendices and Attachments:

Appendix 4 – List and Map of Water Quality Sampling Sites on the mainstem of the Presumpscot River.

Attachments:

Lower Presumpscot 2019 Water Quality Analysis.xlsx

PRLT Presumpscot Water Quality Historical Data Master MAR 11 2020.xlsx --
Complete Presumpscot River water quality Monitoring Data 2009 - 2019 from
Presumpscot Regional Land Trust

Letter of support from Trout Unlimited

Letter of support from Falmouth Land Trust

APPENDICES

Appendix 1 – Map of Lower Presumpscot River





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

Statute below is **marked up** to indicate change of Lower Presumpscot River water quality classification from Class C

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 Sacarappa Falls - Class B.

(4) From Sacarappa Falls to tidewater - ~~Class C~~ **Class B**. [PL 1999, c. 277, §12 (AMD).]



Appendix 3 – Timeline of Recent Events that Led to the Requirement to Upgrade Lower Presumpscot River Reclassification from Class C to Class B

1999 – Cessation of pulping at Cumberland Mills dramatically reduces water and air pollution from the Sappi mill. Water quality in the lower river improves.

2002 – Smelt Hill Dam is removed, eliminating the first impoundment on the river, restoring head of tide to its natural location farther upstream at Presumpscot Falls, and results in restoring the annual spawning run of alewives into the Presumpscot River, up Mill Brook, and into Highland Lake. Elimination of the impoundment improves water quality in the lower river.

2003 – Newly issued FERC and State licenses require fish passage in five consecutive dams on the Presumpscot River, starting with Saccarappa Dam at the upper terminus of the Class C Lower Presumpscot River, and continuing upstream past Mallison, Little Falls, Gambo, and Dundee. Sappi appeals terms of the licenses.

2006 (May) – Supreme Court of the United States upholds the terms of the licenses issued in 2003 with a 9-0 decision. Now only Cumberland Mills dam stands in the way of migratory fish triggering the requirement for fish passage at the next 5 dams and their return to their native spawning grounds.

2006 (October) – FOPR formally requests Maine IF&W to initiate proceedings to consider construction of fishways at Cumberland Mills (which is now the first dam on the river and the only barrier to fish reaching the next 5 dams, each of which must be modified to pass fish once fish seeking passage are present).

2009 – IF&W Commissioner Roland Martin orders *“that fish passage should be constructed and maintained at the Cumberland Mills Dam, in order to conserve, develop or restore anadromous or migratory fish resources.”* Findings in the commissioner’s decision include, *“There is evidence in the record that the habitat made available by the provision of fish passage at Cumberland Mills Dam can support a substantial commercial American eel fishery in the Presumpscot River watershed.”*

2013 (May) – Fish passage opens at Cumberland Mills, triggering the license requirement for fish passage at Saccarappa to be in place and effective in May 2015.



2015 – New FERC license for Eel Weir Dam significantly increases minimum flow from 270cfs to 408cfs during critical summer months (June – September) to maintain dissolved oxygen in the Presumpscot River.

2016 – Sappi, FOPR, and other stakeholders sign a settlement agreement for construction of fish passage and removal of both spillways that comprise Saccarappa Dam.

2019 – FERC approves Sappi application to surrender its Saccarappa project license and work at Saccarappa begins. The dam is largely removed in July 2019 eliminating a second impoundment that has negatively impacted water quality in the lower river. Except for the Cumberland Mills impoundment, the Presumpscot River flows free from Mallison Falls Dam to head of tide – approximately 12 miles.

2021 (May) – Effective fish passage will be open at Saccarappa, reconnecting migratory fish with an abundance of native spawning habitat, including the entire Little River system. During the Cumberland Mills Fishway Proceedings 15 years earlier, Maine DMR testified and:

- Estimated that a potential river herring harvest of 33,180 to 84,591 fish would be created in the Cumberland Mills and Saccarappa impoundment habitats
- Estimated that the habitat in the Cumberland Mills and Saccarappa impoundments can produce a run of 14,681 American shad each year



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

NOTE: There was no sampling done at PO15 in 2019.

SOURCE: DEP Presumpscot River 2018 Data Report

Presumpscot River Sampling Sites, Mainstem Presumpscot Regional Land Trust

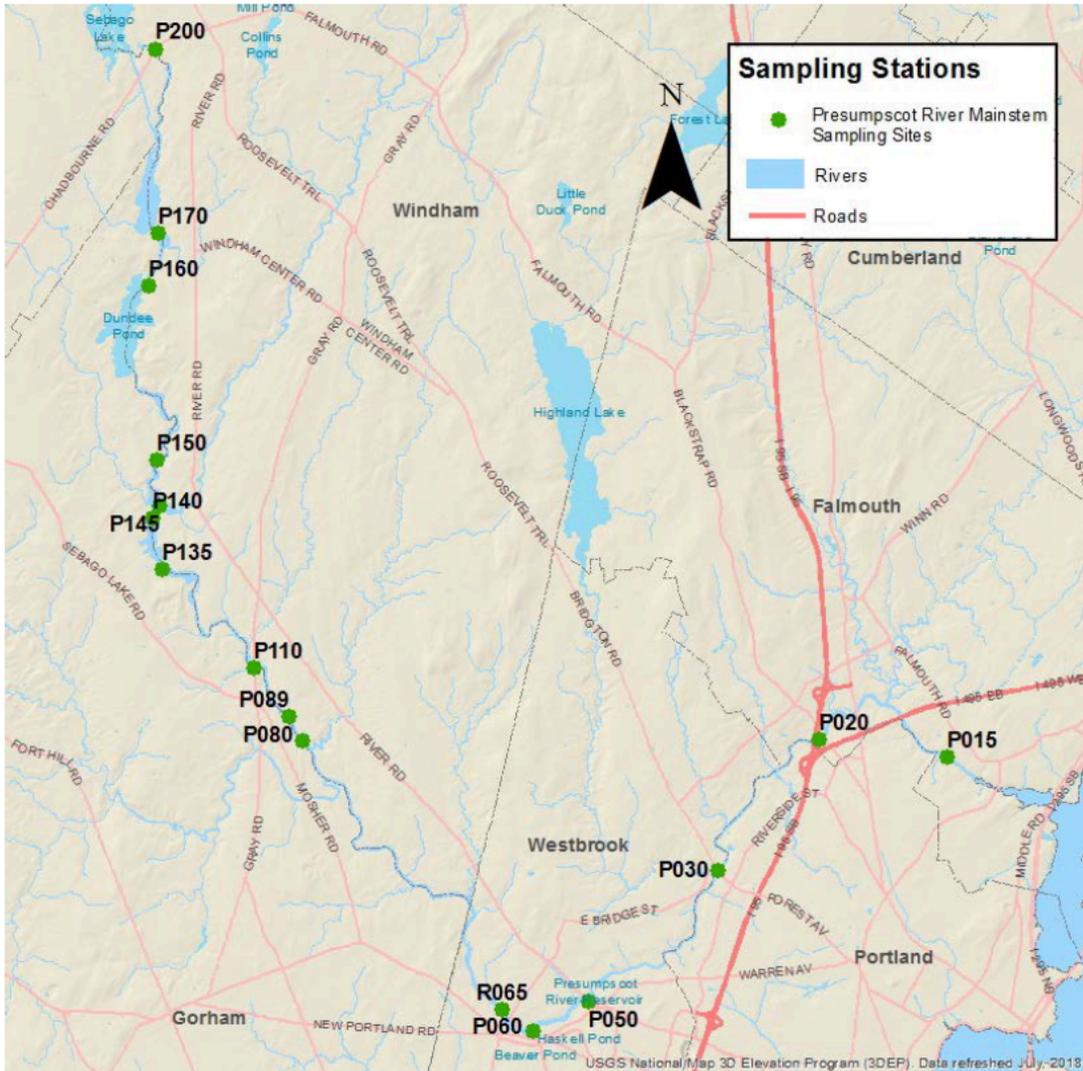


Figure 5-6-1: Map of Presumpscot Regional Land Trust mainstem sampling sites.

NOTE: There was no sampling done at P015 in 2019.