

Section 5-6 Presumpscot River & Tributaries (Presumpscot River Land Trust)

Presumpscot River

The Presumpscot River originates at Sebago Lake Basin and flows approximately 25 miles (40 km) to the Atlantic Ocean (Casco Bay) through Cumberland County, Maine. The Presumpscot River contributes the largest freshwater input into Casco Bay, draining approximately 648 square miles. The Presumpscot watershed below Sebago Lake is slightly more than 200 square miles. Nine dams, seven of which are used to generate hydroelectric power, create impoundment and associated tailwater habitats. The uppermost dam is located at the Sebago Lake outlet, whereas the lowermost dam is located at the SAPPI Mill in Westbrook.

Major tributaries to the Presumpscot River include the Pleasant River, Little River, and the Piscataqua River; minor tributaries include Otter Brook, Nason Brook, Black Brook, Colley Wright Brook, Inkhorn Brook, and Mill Brook. Highland Lake and Forest Lake are the primary lakes in the Presumpscot River watershed; Mill Brook and the Piscataqua River, respectively, connect them to the mainstem of the Presumpscot River.

Windham, Gorham, Westbrook, Cumberland, Falmouth, and Portland represent primary municipalities in the Presumpscot River watershed, and are characterized by multiple land uses. Urban areas include residential and commercial dwellings, commercial businesses, light industry, and water and wastewater treatment plants. Westbrook and Portland contribute combined sewer overflow (CSO) discharge to the Presumpscot River below Saccarappa Falls. The SAPPI paper mill is located in Westbrook. Agricultural practices such as row crop and pasture constitute the agricultural land use component, whereas mixed deciduous and coniferous forest comprise the forest component.

Segments of the Presumpscot River are listed in the Maine Department of Environmental Protection (DEP) Integrated Monitoring and Assessment Report as impaired for recreational use (bacteria). These segments include: Colley Wright Brook, Hobbs Brook, Inkhorn Brook, Mosher Brook, Otter Brook, Nason Brook, Pleasant River, Piscataqua River and Presumpscot River-Westbrook (CSO abatement ongoing). The following segments are also listed as impaired due to dissolved oxygen: Colley Wright Brook, Hobbs Brook, Inkhorn Brook, Mosher Brook, Otter Brook, and Pleasant River (including Thayer Brook).

According to Maine's statutory Water Classification System, the Presumpscot River Basin has designations listed below.

- Presumpscot River, mainstem.
 - From the outlet of Sebago Lake to the confluence with the Pleasant River – Class A. (Note: Dundee Pond is a great pond, classified GPA)
 - From the confluence with the Pleasant River to Saccarappa Falls – Class B.

- From the Saccarappa Falls to tidewater – Class C.
- Below head-of-tide – Class SC.
- Presumpscot River tributaries below Sebago Lake – Class B.

Monitoring History

- The Maine DEP Biological Monitoring Program has been monitoring the river and tributaries since 1985. This data is available on DEP's website.
- Presumpscot River Watch (PRW), incorporated as a not-for-profit organization in 1989. The mission of PRW is to preserve and improve the health of the Presumpscot River watershed by scientifically monitoring water quality and sharing data to increase awareness of the condition of the river. PRW's commitment is primarily accomplished through a seasonal (summer) volunteer water quality monitoring program that enhances public awareness of river water quality in the Presumpscot River watershed. The data generated from the monitoring program also serve other purposes: (1) verification of State water quality standards; (2) identification of specific problem areas; (3) establishment of baseline water quality monitoring data; and (4) use of water quality monitoring results by other organizations.
- Presumpscot River Watch joined the Volunteer River Monitoring Program in 2009.
- Presumpscot River Watch merged with Presumpscot Regional Land Trust (PRLT) in 2017.

Methods and Sampling Sites

The volunteers monitor the Presumpscot River annually. There are forty-one monitoring sites in the watershed. Although PRLT's goal is to monitor all sites each year, they generally sample a subset of sites every year. All stations are above the head-of-tide at Presumpscot Falls.

Monitoring is conducted every two weeks from May through September. At each of the sites, the monitors take measurements of dissolved oxygen and temperature using either a YSI meter. Conductivity is measured with either a YSI meter or EC Testr 11/11+ pen. Grab samples are collected for *E. coli* bacteria and transported to the University of Southern Maine (Gorham) for analysis using IDEXX Quanti-Tray 2000 method.

Table 5-6-1. Presumpscot River Land Trust sampling sites, ordered from upstream down for the mainstem and the same for the tributaries at their confluence with the Presumpscot River (*indicates non-approved sites).

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
Pleasant River & Tributaries			
Pleasant River-RPL47-VRMP	PL040	Route 302	B
Pleasant River-RPL37-VRMP	PL030	Windham Center Road	B
Pleasant River-RPL29-VRMP	PL020	Pope Road	B
Pleasant River-RPL06-VRMP	PL010	Lovett Bridge	B
Baker Brook-RPLBK17-VRMP	BB010	Falmouth Road	B
Ditch Brook-RPL00-VRMP	DB010	Route 302	B
Upper Presumpscot Tributaries			
Little River-RLT101-VRMP	L060	Little River	B
Little River-RLT89-VRMP	L050	Flaggy Meadow Road	B

Little River-RLT15-VRMP	L020	Route 202/4	B
Little River-RLT08-VRMP	L010	Route 237	B
Black Brook-RBK49-VRMP	BL020	Windham Center Road	B
Black Brook-RBK05-VRMP	BL010	River Road	B
Colley Wright Brook-RCW28-VRMP	CW020	Montgomery Road	B
Colley Wright Brook-RCW10-VRMP	CW010	River Road	B
Douglas Brook-RLTNBDG20-VRMP	DG010	Route 114	B
Inkhorn Brook-RIK05-VRMP	IN010	River Road	B
Nason Brook-RNS11-VRMP	N010	Wilson Road	B
Otter Brook-ROT10-VRMP	OB020	Windham Center Road	B
Otter Brook-ROT06-VRMP	OB010	River Road	B
Tannery Brook-RLTTN21-VRMP	TA040	Route 114	B
Tannery Brook-RLTTN06-VRMP	TA010	Queen Street	B
Lower Presumpscot River Tributaries			
Piscataqua River-RPS12-VRMP	PI020	Leighton Road	B
E. Branch Piscataqua River-RPSEB05-VRMP	PI010	Falmouth Road	B
Mill Brook-RML63-VRMP	M030	Below Highland Lake	B
Mill Brook-RML01-VRMP	M010	Bridge Street	B

Presumpscot River Sampling Sites, Mainstem Presumpscot River Land Trust

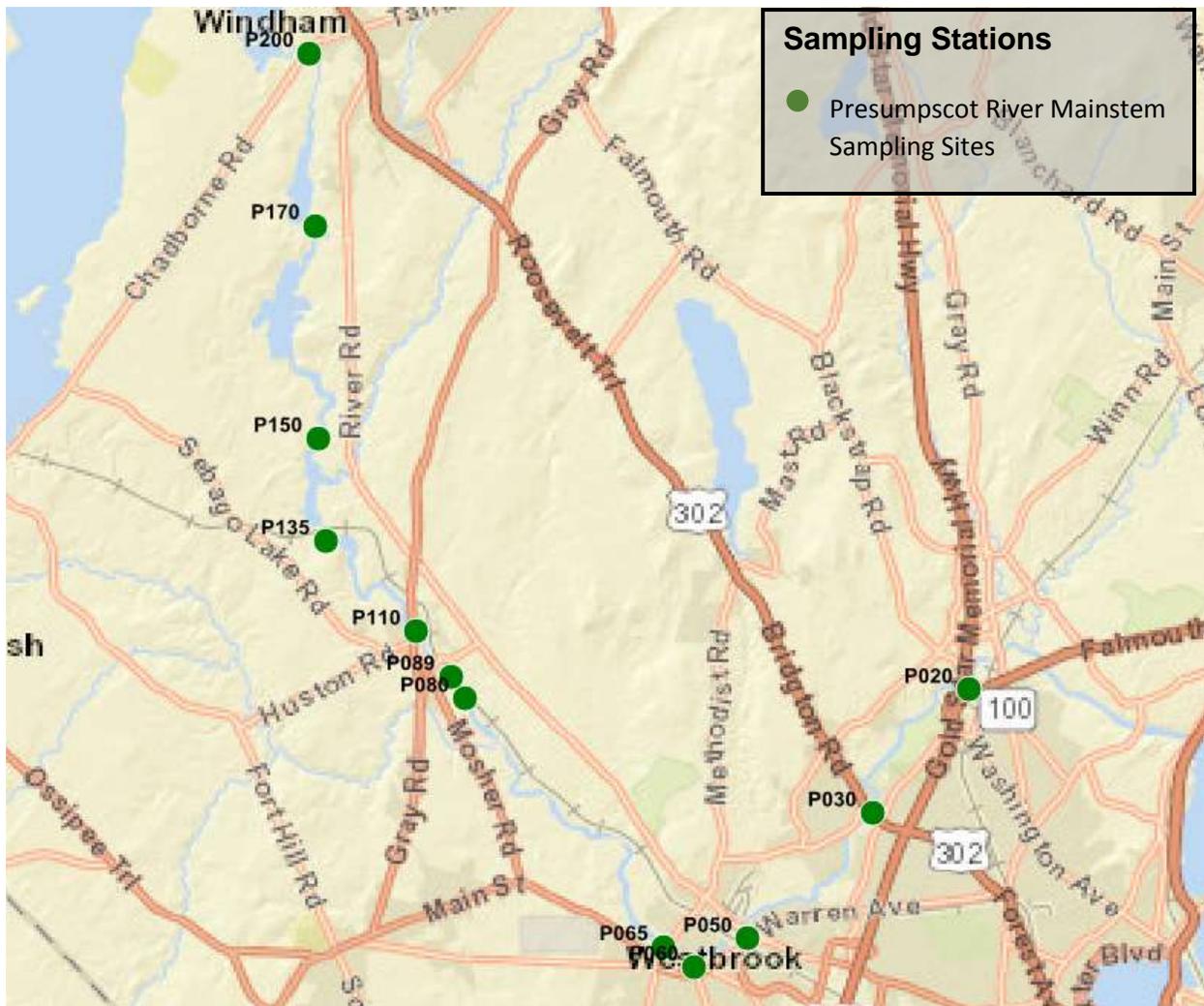


Figure 5-6-1: Map of Presumpscot River Watch mainstem sampling sites.



Presumpscot River Sampling Sites, Pleasant River and Tribs Presumpscot River Land Trust

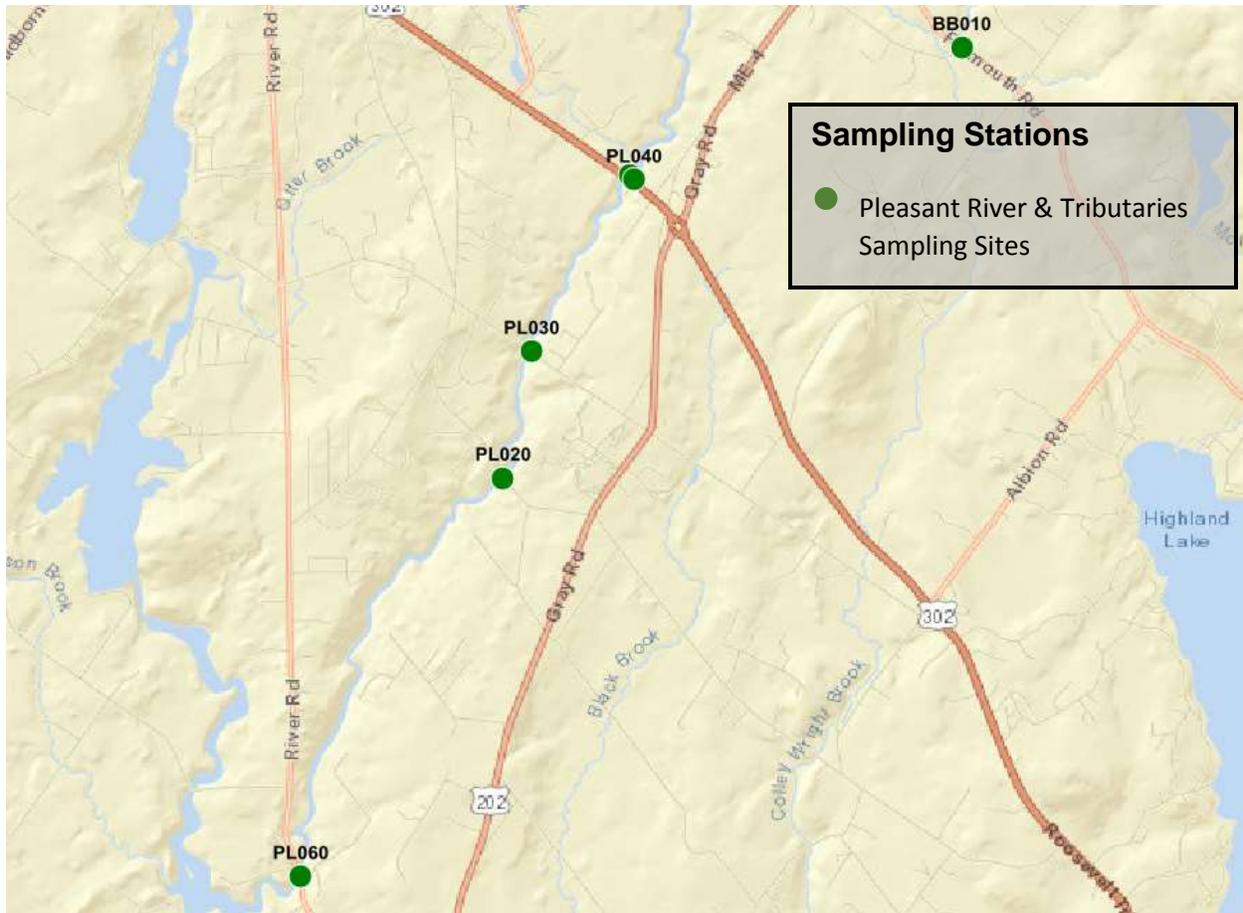


Figure 5-6-2: Map of Presumpscot River Watch sampling sites at Pleasant River and tributaries.



Presumpscot River Sampling Sites, Little River and Tribs Presumpscot River Land Trust

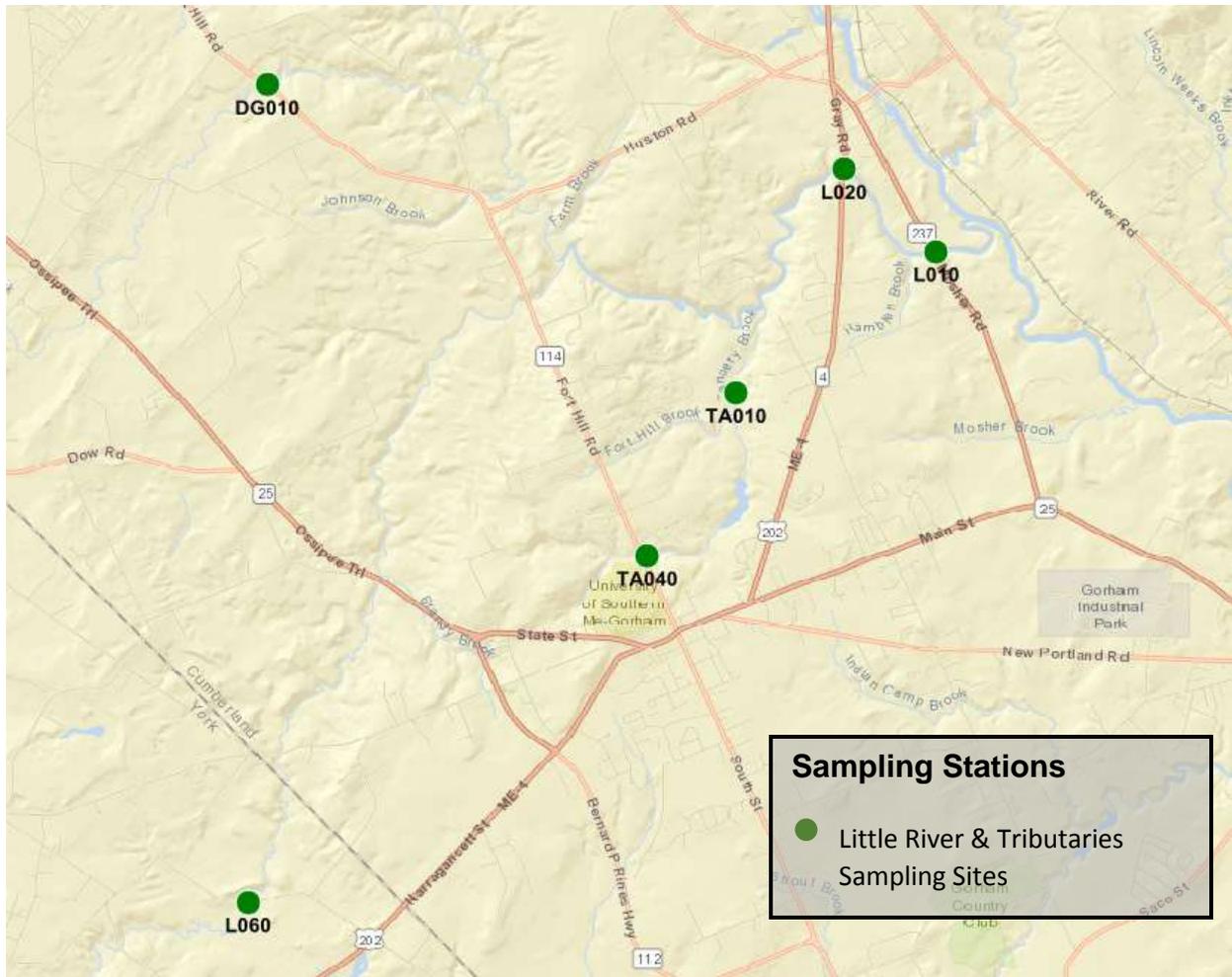


Figure 5-6-3: Map of Presumpscot River Watch sampling sites at Little River and tributaries.



Presumpscot River Sampling Sites, Upper Presumpscot Tribs Presumpscot River Land Trust

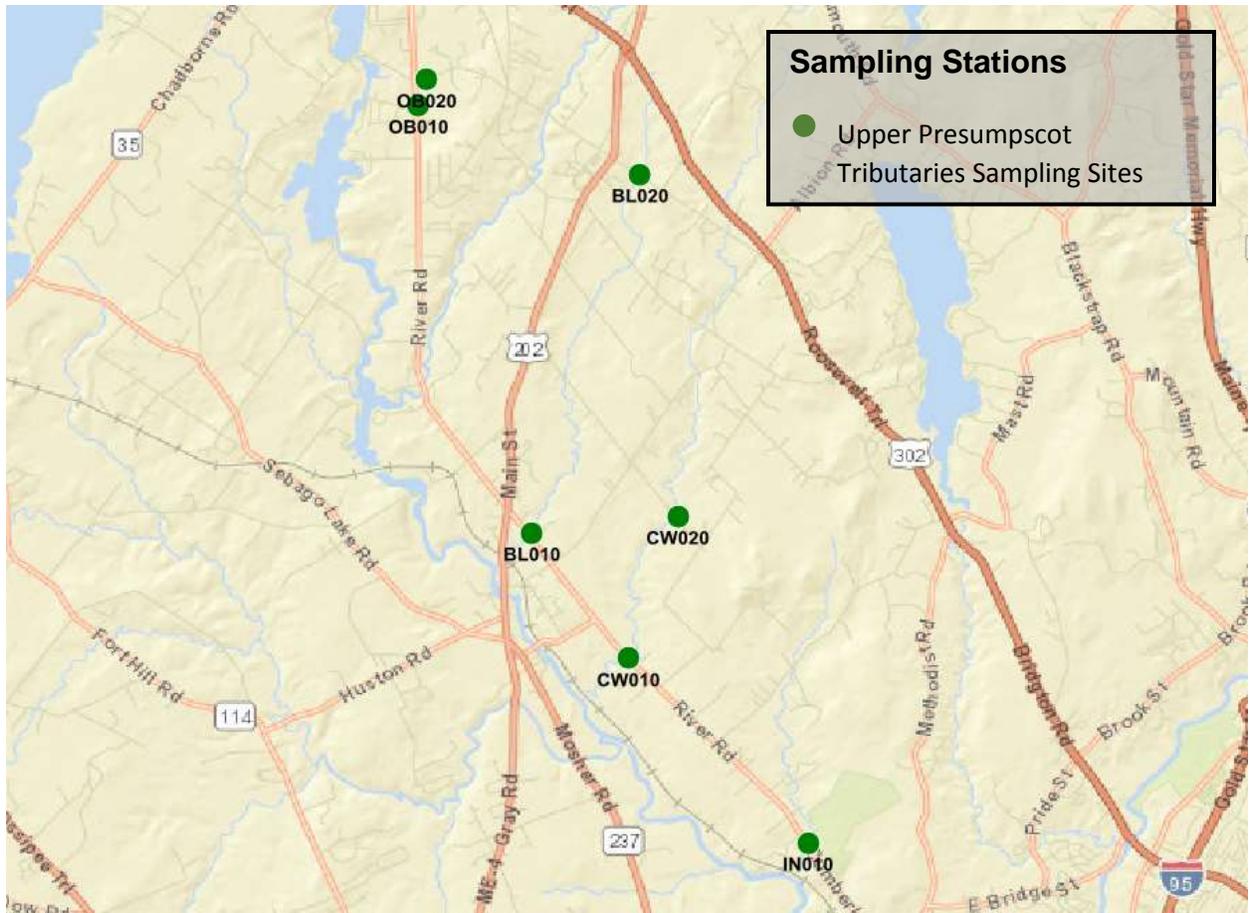


Figure 5-6-4: Map of Presumpscot River Watch sampling sites, Upper Presumpscot tributaries.



Presumpscot River Sampling Sites, Lower Presumpscot Tributaries Presumpscot River Land Trust

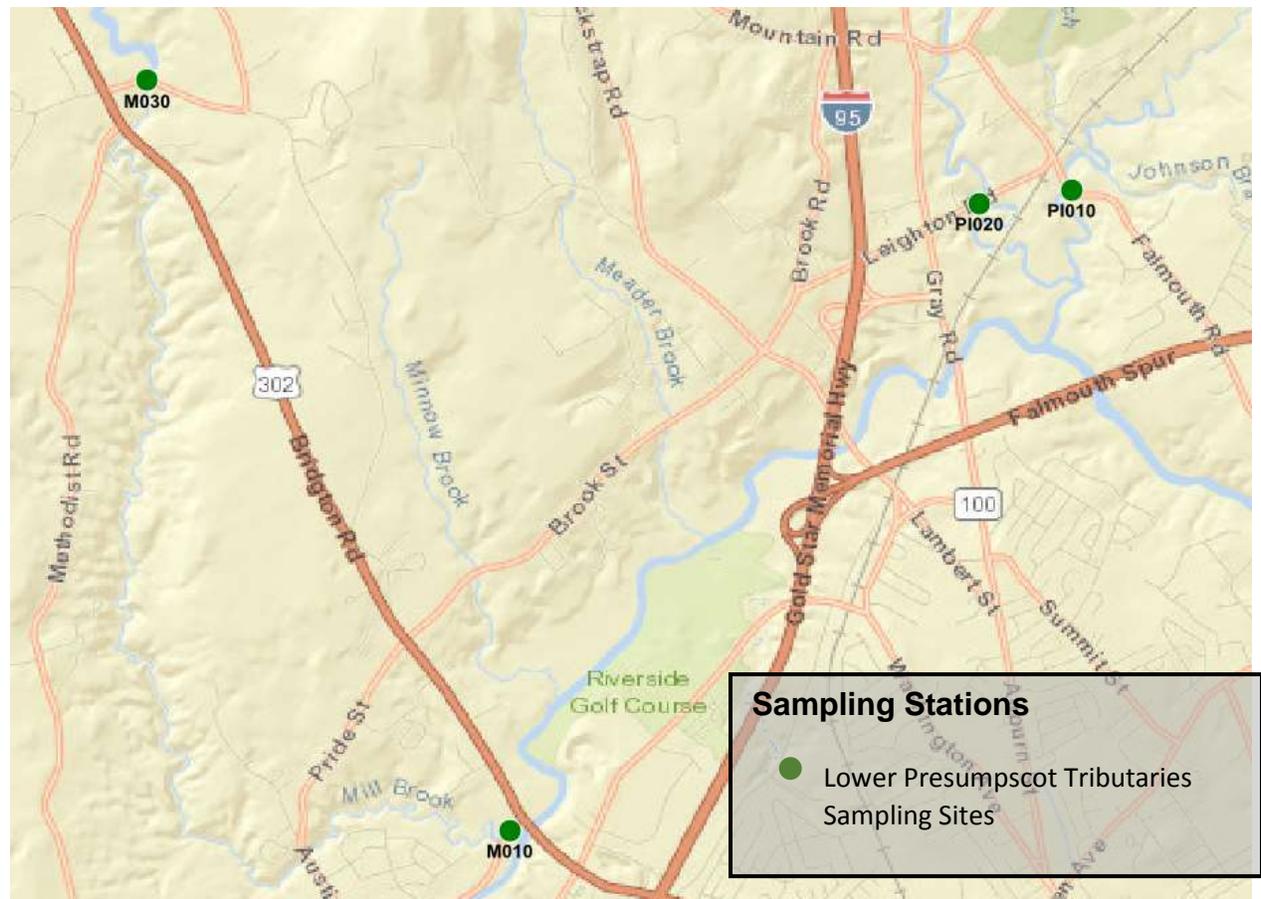


Figure 5-6-5: Map of Presumpscot River Watch sampling sites on the lower Presumpscot tributaries.



Results

For the purpose of discussion, the sampling stations were divided into Presumpscot River upper mainstem (sites P200 – P080), Presumpscot River lower mainstem (sites P065-P020), Pleasant River and tributaries, Little River and tributaries, upper Presumpscot tributaries, and lower Presumpscot tributaries. Refer to Appendix A for discussion of individual site data and trends.

Dissolved Oxygen

Dissolved oxygen (DO) levels are generally lowest early in the morning and then increase during the day, peaking in the mid-to-late afternoon. Monitors should try to collect some samples early in the morning. Dissolved oxygen is also affected by flow conditions and temperature. During high flow conditions, more oxygen is added to the river from the atmosphere as the water is more turbulent and there is more opportunity for mixing. If flow during the summer months is higher or lower than normal, dissolved oxygen will be affected.

Class A and Class B criteria for dissolved oxygen are a minimum of 7 mg/l (milligrams/liter) or 75% saturation. Class C criteria for dissolved oxygen are a minimum of 5 mg/l or 60 % saturation. To meet water quality criteria, both concentration and saturation standards must be met.

2017 Results

Upper mainstem sites: At the upper mainstem sites (P200-P080), there was only 1 site that did not meet Class A and Class B criteria for dissolved oxygen (DO) concentration on all dates. Site P089 was slightly below criteria on 1 date in July. All the sites met Class A and Class B criteria for percent saturation. Overall DO was excellent on the upper mainstem sites.

Lower mainstem sites: At the lower mainstem sites (P065-P020), all the sites met Class B or C criterion for both dissolved oxygen concentration and percent saturation. The Class C sites also met the Class B criterion. Overall, DO was excellent on the lower mainstem sites.

Pleasant River and tributaries: Site PL040 was slightly below criteria for DO concentration and percent saturation on 2 dates. One value in September was low (55% saturation). For most of the dates, only percent saturation was recorded at this site. Site PL010 was slightly below DO concentration criterion on 1 date. Overall, DO was good on Pleasant River and excellent on the tributaries.

Little River and tributaries: For the Little River, there were 2 dates that were slightly below DO percent saturation. Douglas Brook (site DG010) was slightly below the DO concentration criterion as well as percent saturation on 3 dates. Tannery Brook (site TA010) was slightly below percent saturation criterion on 1 date. At some of the sites (L020, L010, and TA010), only percent saturation values were recorded on most of the sampling dates. Overall, DO was good to excellent on the Little River and tributaries.

Upper Presumpscot Tributaries: The Black Brook sites were below DO concentration criterion on 3-7 dates and below percent saturation criterion on 4-8 sample dates. Site BL020 was worse with values below 5 mg/l and 50% saturation from late July-September. Colley Wright Brook (site CW020) was slightly below percent saturation criterion on 2 dates and site CW010 was below both criterion on 3 dates. The values were slightly below criterion except in September when the readings were low. Inkhorn Brook was somewhat below both criterion for most of the summer. Both Otter Brook sites were well below both criterion for most of the summer. Overall, these tributaries are poor-fair.

Lower Presumpscot Tributaries: Piscataqua River-East Branch (site PI010) was slightly below DO concentration criterion on 1 sample dates and slightly below percent saturation criterion on 4 sample dates. The Mill Brook sites were below both criteria 1-3 times. One value at site M010 was low in late July. Overall dissolved oxygen was good-excellent at these tributaries.

Table 5-6-2: A summary of minimum, maximum, and mean dissolved oxygen concentration values (mg/l) at Presumpscot River Land Trust monitoring sites.

Site	Class	# Sample Points	Mean	Minimum	Maximum	Criterion	# Not Meeting Criterion
Mainstem (ordered from upstream to downstream)							
P200	A	3	7.5	7.2	7.9	7ppm	0
P170	A	7	8.8	7.3	11.3	7ppm	0
P150	A	10	8.9	7.5	11.3	7ppm	0
P135	B	12	8.8	7.4	10.8	7ppm	0
P110	B	10	8.4	7.6	9.8	7ppm	0
P089	B	9	8.3	6.9	10.6	7ppm	1
P080	B	8	8.4	7.2	10.0	7ppm	0
P065	B	8	8.3	7.7	9.4	7ppm	0
P060	C	6	8.8	7.8	9.7	5ppm	0
P050	C	6	8.6	7.7	9.5	5ppm	0
P030	C	10	8.6	7.2	11.	5ppm	0
P020	C	10	8.6	7.5	10.4	5ppm	0
Pleasant River & Tributaries							
PL040	B	3	7.1	6.2	8.5	7ppm	2
PL030	B	7	8.4	8.0	9.0	7ppm	0
PL020	B	7	8.5	7.8	9.0	7ppm	0
PL010	B	7	8.1	7.0	9.7	7ppm	1
DB010	B	3	8.3	8.2	8.5	7ppm	0
BB010	B	9	8.5	7.4	10.0	7ppm	0
Little River and Tributaries							
L060	B	6	8.00	7.1	9.2	7ppm	0
L020	B	1	8.40	8.4	8.4	7ppm	0
L010	B	1	7.83	7.8	7.8	7ppm	0
DG010	B	12	8.49	6.3	12.9	7ppm	3

TA040	B	10	9.7	8.3	11.2	7ppm	0
TA010	B	1	8.6	8.6	8.6	7ppm	0
Upper Presumpscot River Tributaries							
BL020	B	9	5.3	2.2	8.4	7ppm	7
BL010	B	10	7.7	5.4	9.5	7ppm	3
CW020	B	6	7.8	7.10	8.8	7ppm	0
CW010	B	5	7.0	4.9	8.6	7ppm	3
IN010	B	6	5.9	4.6	8.3	7ppm	5
OB020	B	3	4.2	3.7	5.1	7ppm	3
OB010	B	7	3.9	1.7	6.6	7ppm	7
Lower Presumpscot River Tributaries							
PI020	B	10	9.2	8.3	10.3	7ppm	0
PI010	B	10	7.3	6.2	9.8	7ppm	1
M030	B	10	7.7	6.3	9.2	7ppm	3
M010	B	10	8.0	5.4	10.6	7ppm	1

Table 5-6-3: A summary of minimum, maximum, and mean dissolved oxygen saturation values (%) at Presumpscot River Land Trust monitoring sites.

Site	Class	# Sample Points	Mean	Minimum	Maximum	Criterion	# Not Meeting Criterion
Mainstem (ordered from upstream to downstream)							
P200	A	8	91.2	84.2	98.0	75%	0
P170	A	9	92.6	83.1	107.0	75%	0
P150	A	10	97.8	87.7	107.3	75%	0
P135	B	12	94.1	86.1	102.5	75%	0
P110	B	10	91.2	86.1	95.0	75%	0
P089	B	10	95.2	86.7	106.6	75%	0
P080	B	9	97.8	90.2	111.6	75%	0
P065	B	8	94.8	88.9	101.3	75%	0
P060	C	6	97.0	91.2	105.0	60%	0
P050	C	6	94.3	89.4	102.7	60%	0
P030	C	10	93.7	85.0	115.0	60%	0
P020	C	10	94.2	86.4	101.5	60%	0
Pleasant River & Tributaries							
PL040	B	8	79.6	55.5	99.3	75%	2
PL030	B	10	89.0	83.3	93.1	75%	0
PL020	B	10	89.3	83.5	93.5	75%	0
PL010	B	10	87.2	76.4	109.2	75%	0
BB010	B	9	85.5	77.4	97.0	75%	0
DB010	B	8	94.2	88.0	96.4	75%	0
Little River and Tributaries							
L060	B	6	81.4	71.1	96.7	75%	2

L020	B	4	92.6	85.0	98.4	75%	0
L010	B	10	83.9	76.0	94.2	75%	0
DG010	B	12	82.6	63.7	92.7	75%	3
TA040	B	10	94.1	84.7	106.6	75%	0
TA010	B	10	82.2	72.2	92.3	75%	1
Upper Presumpscot River Tributaries							
BL020	B	9	52.8	25.0	80.4	75%	8
BL010	B	10	77.4	54.6	91.4	75%	4
CW020	B	6	80.0	72.0	93.0	75%	2
CW010	B	5	72.0	50.0	91.6	75%	3
IN010	B	6	59.8	46.4	77.4	75%	5
OB020	B	8	49.1	22.8	61.4	75%	8
OB010	B	9	37.9	18.1	62.1	75%	9
Lower Presumpscot River Tributaries							
PI020	B	10	92.5	87.3	98.2	75%	0
PI010	B	10	76.5	64.1	92.6	75%	4
M030	B	10	84.8	68.2	97.1	75%	2
M010	B	10	82.5	58.2	101.8	75%	2

Figure 5-6-6: Graph of dissolved oxygen concentrations at sites on the upper mainstem of the Presumpscot River

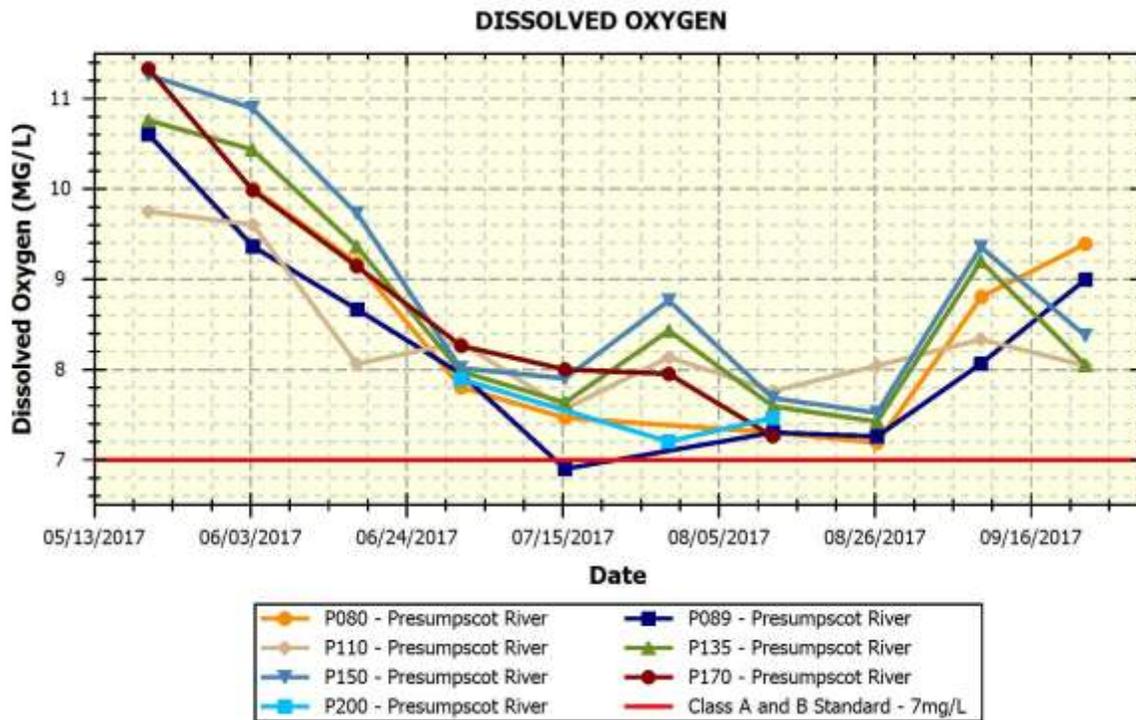


Figure 5-6-7: Graph of dissolved oxygen concentrations at sites on the lower mainstem of the Presumpscot River

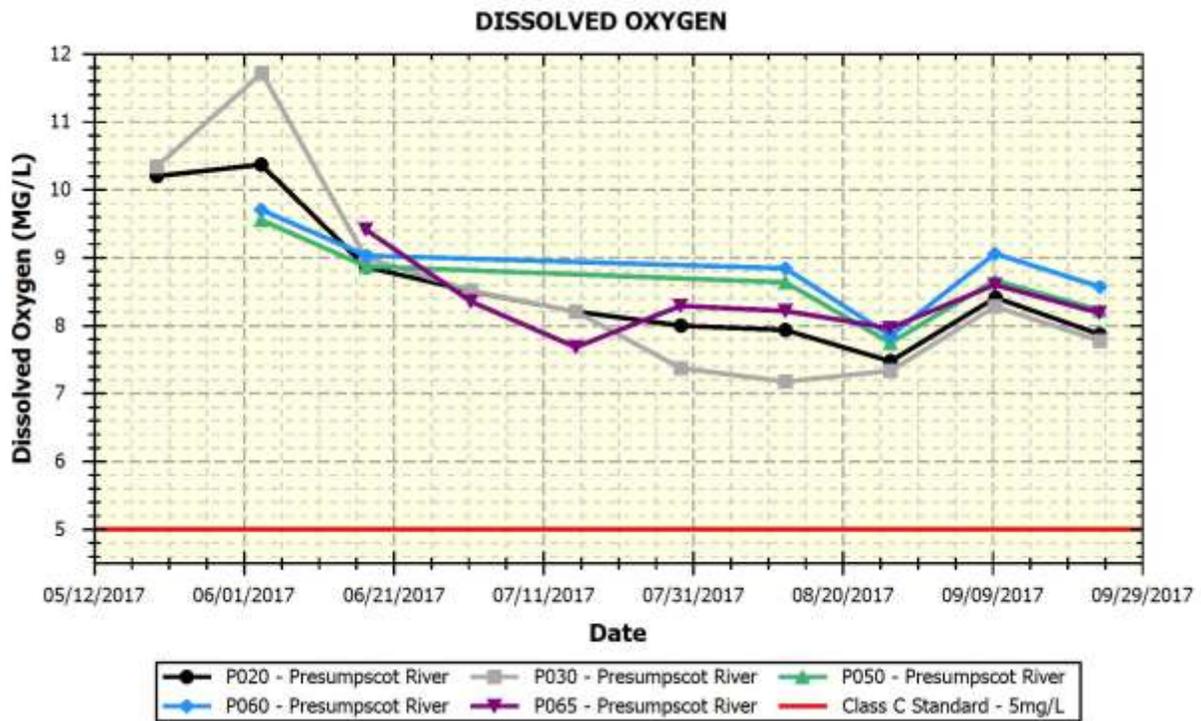


Figure 5-6-8: Graph of dissolved oxygen concentrations at sites on the Pleasant River and tributaries

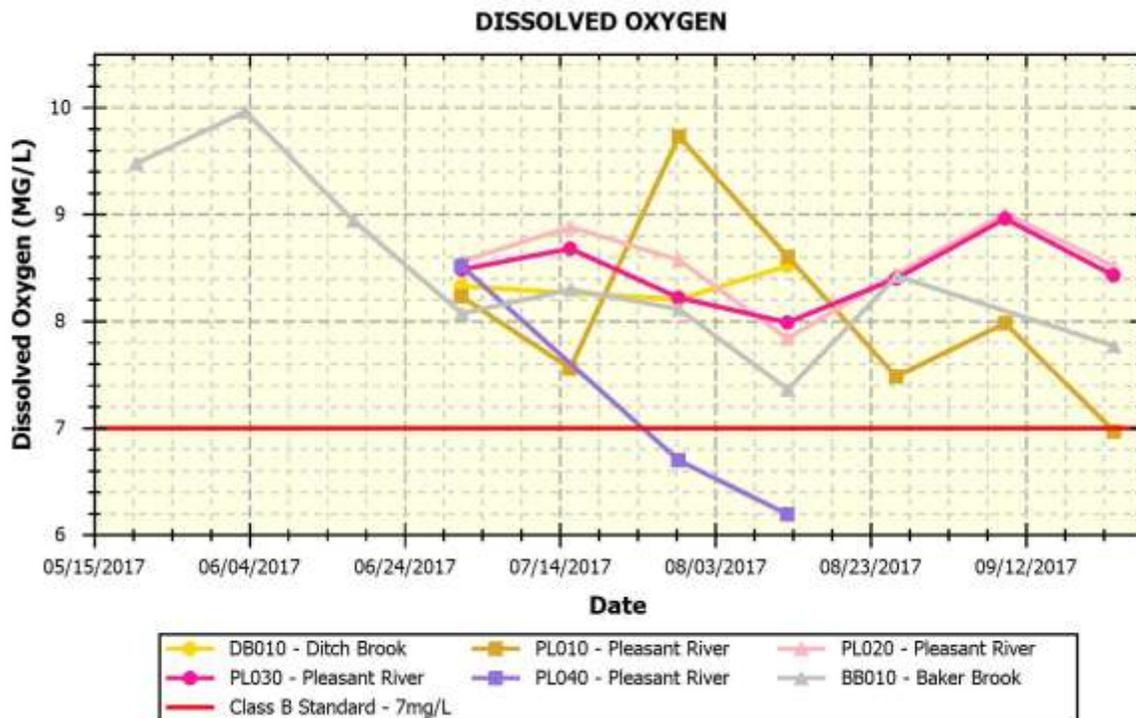


Figure 5-6-9: Graph of dissolved oxygen concentrations at sites on the Little River and tributaries.

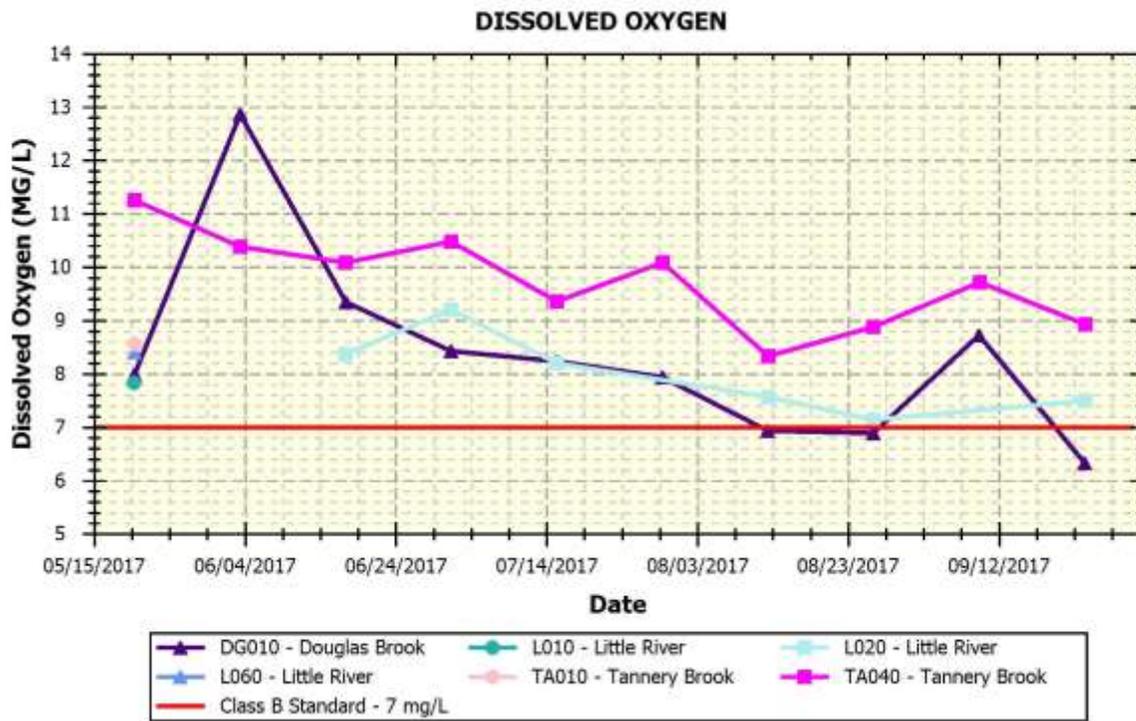


Figure 5-6-10: Graph of dissolved oxygen concentrations at sites on the upper Presumpscot tributaries.

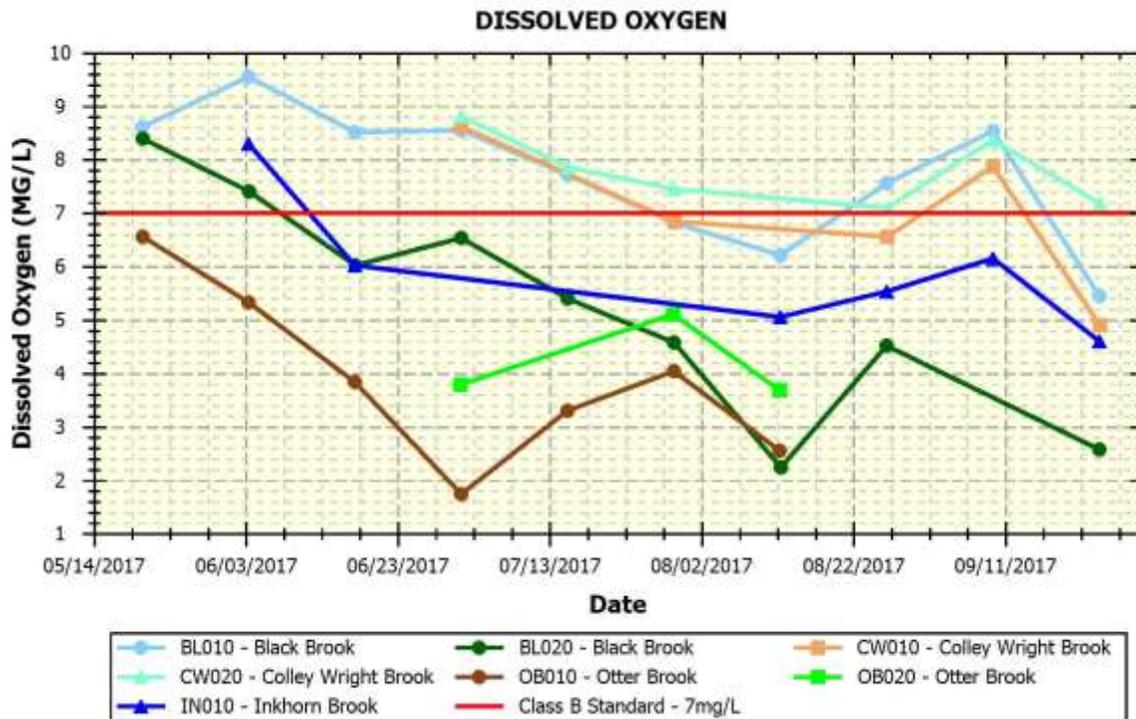


Figure 5-6-11: Graph of dissolved oxygen concentrations at sites on the lower Presumpscot tributaries.

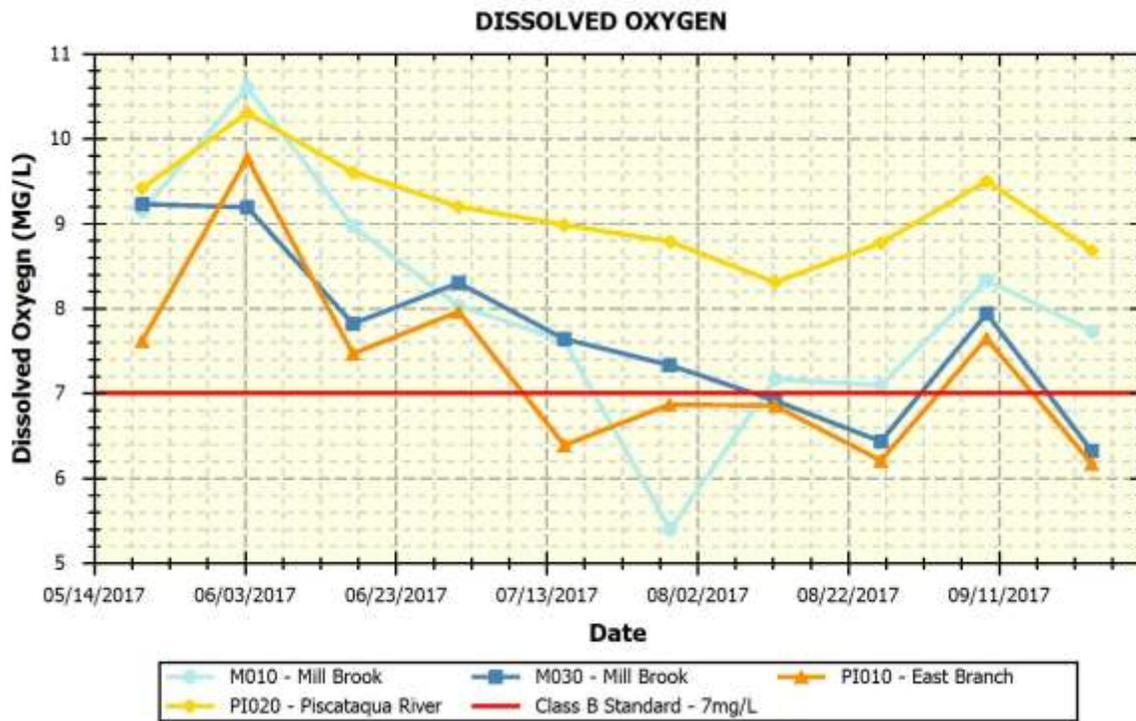


Figure 5-6-12: Graph of dissolved oxygen saturation at sites on the upper mainstem of the Presumpscot River

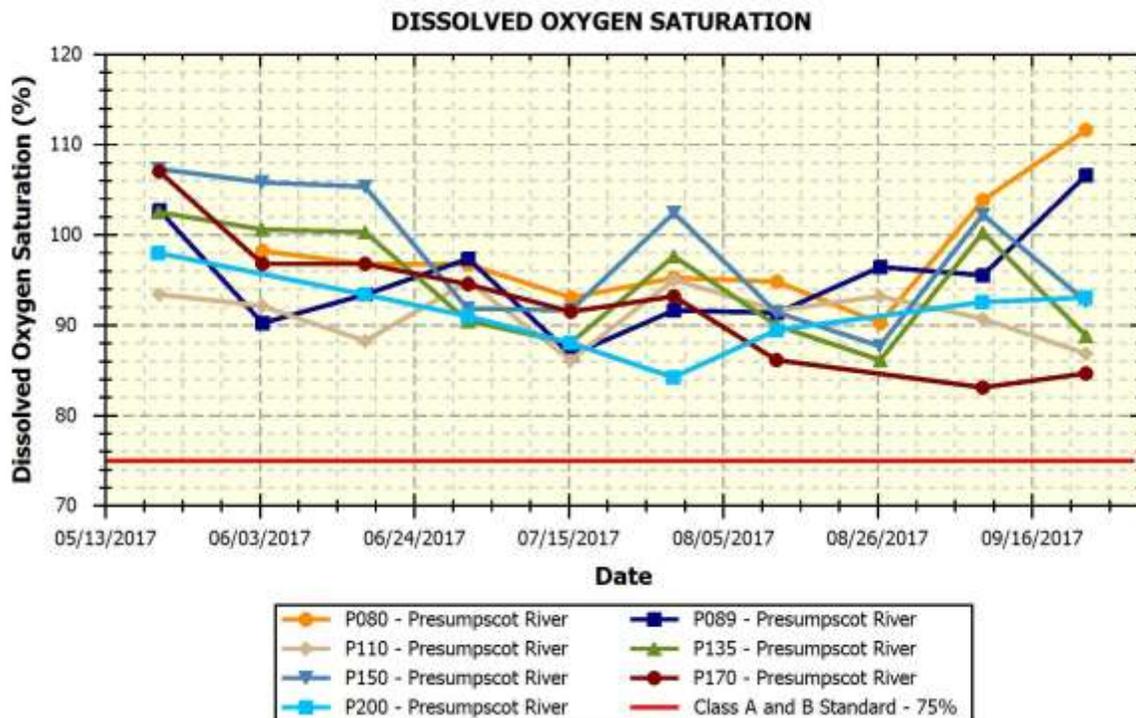


Figure 5-6-13: Graph of dissolved oxygen saturation at sites on the lower mainstem of the Presumpscot River

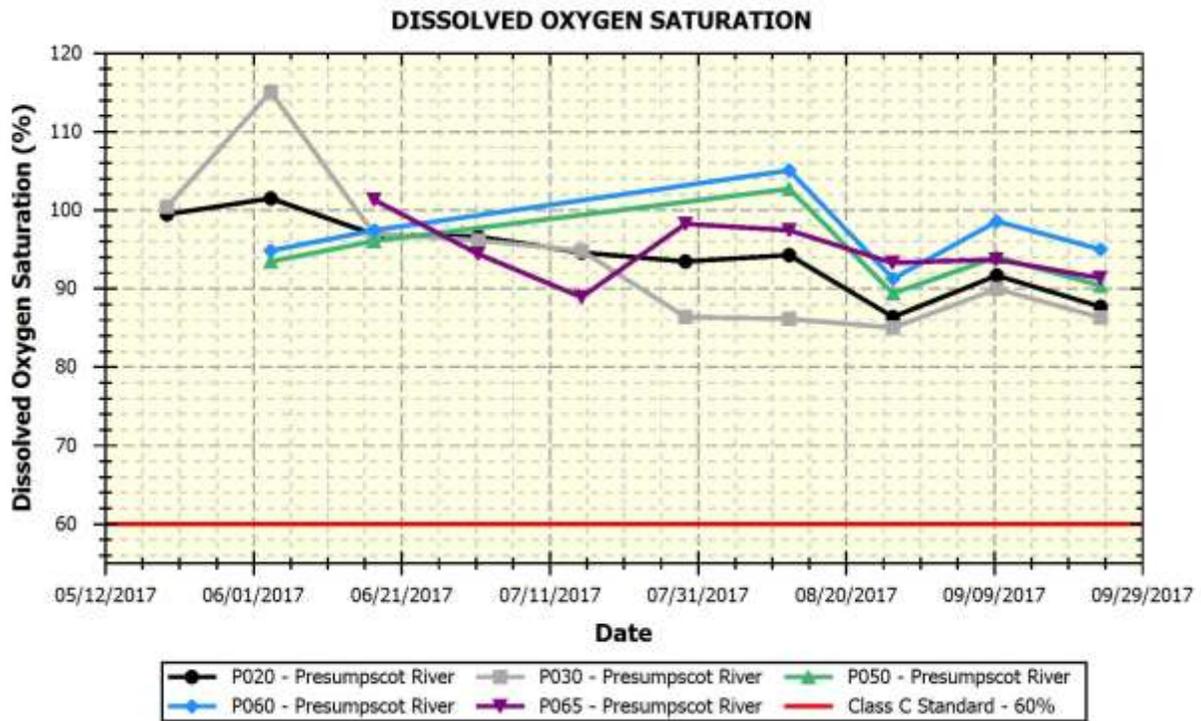


Figure 5-6-14: Graph of dissolved oxygen saturation at sites on the Pleasant River and tributaries

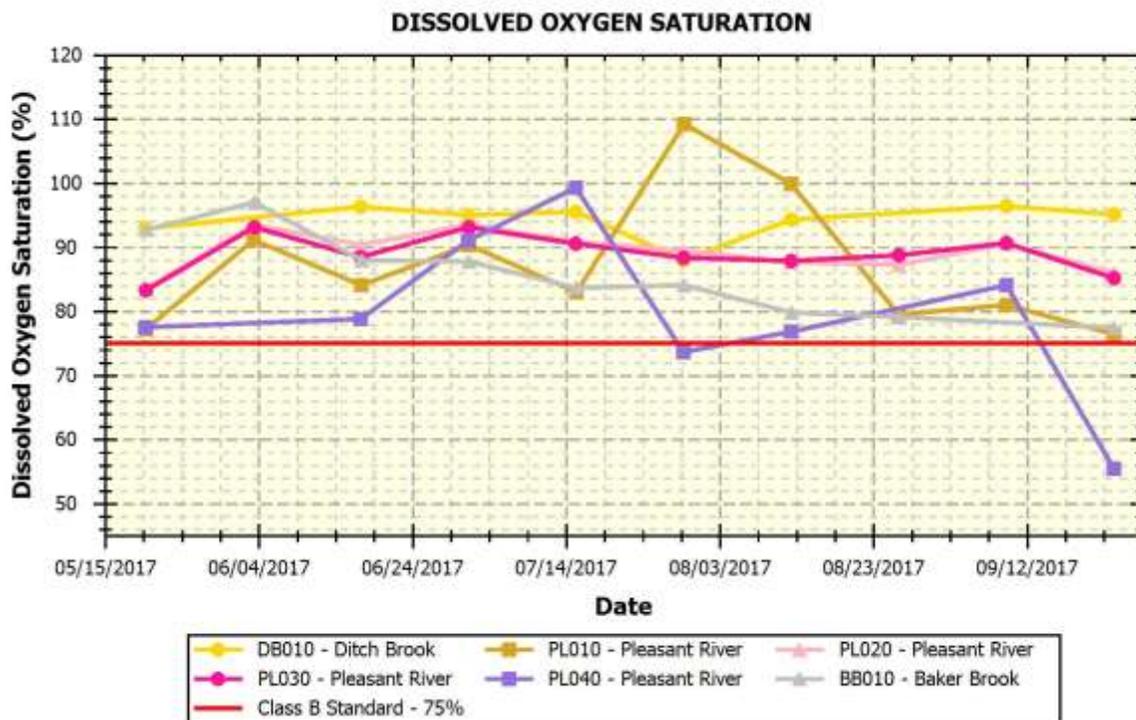


Figure 5-6-15: Graph of dissolved oxygen saturation at sites on the Little River and tributaries.

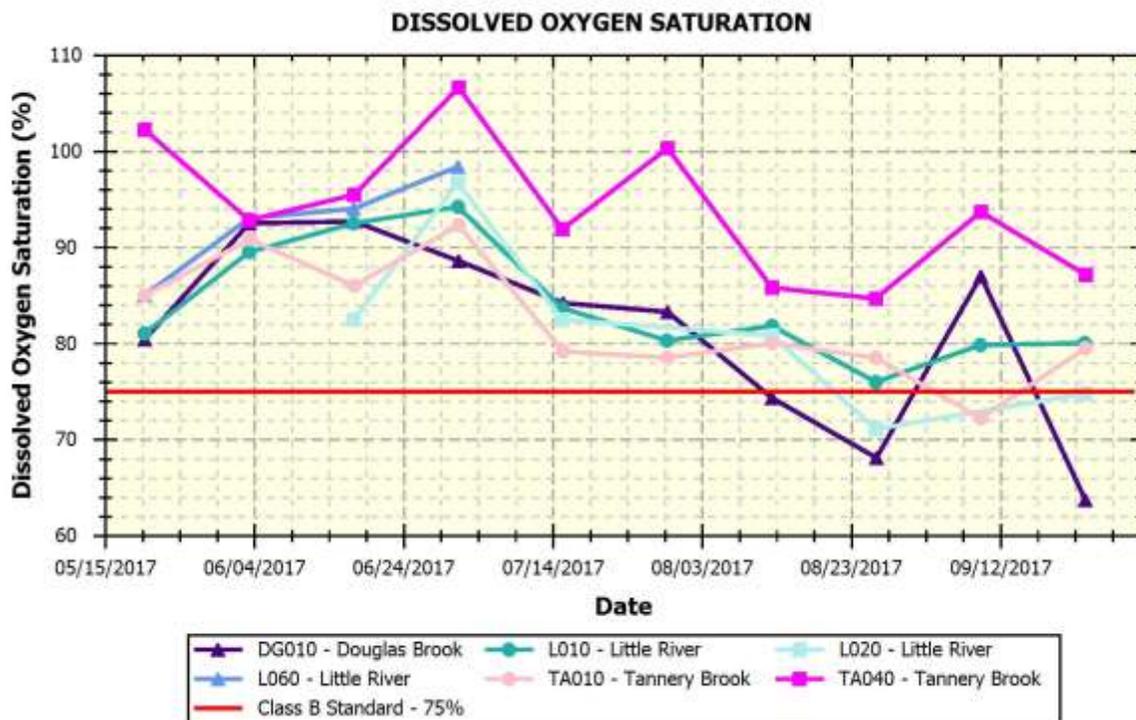


Figure 5-6-16: Graph of dissolved oxygen concentrations at sites on the upper Presumpscot tributaries.

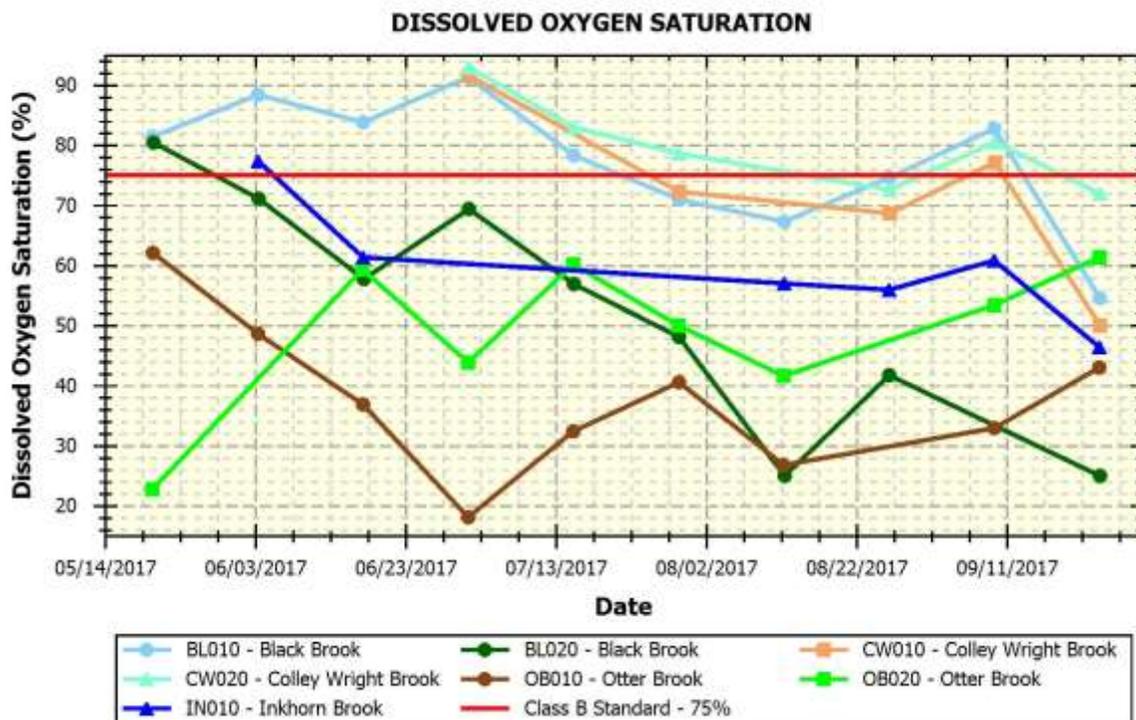
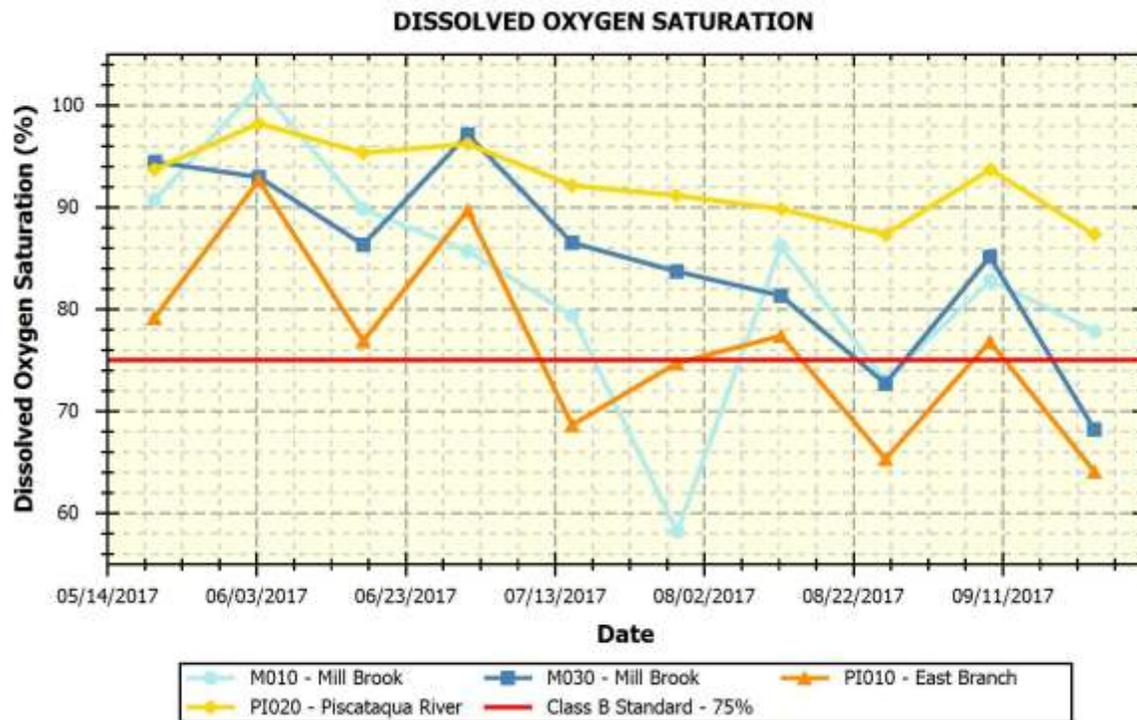


Figure 5-6- 17: Graph of dissolved oxygen saturation at sites on the lower Presumpscot tributaries.

Water Temperature

Maine's Regulations Relating to Temperature (06-096 CMR Chapter 582) require that discharge of pollutants not raise the temperature of any river and stream above the EPA criteria for indigenous species (23 °C maximum and 19 °C weekly average) or 0.3 °C (0.5 °F) above the temperature that would naturally occur outside a mixing zone established by the Board of Environmental Protection. Pollutant is defined in statute as many things including dirt and heat. For tidal waters, discharge of pollutants may not raise the temperature more than 4 °F (2.2 °C) or more than 1.5°F (0.8 °C) from June 1st to September 1st, and may not cause the temperature of any tidal waters to exceed 85 °F (29 °C) at any point outside a mixing zone established by the Board of Environmental Protection. These temperature criteria do not apply to this VRMP data.

2017 Results

Upper mainstem sites: Temperatures at the upper mainstem sites were very similar. Minimum temperatures ranged from 12.0-14.1°C and maximum temperatures ranged from 23.6-24.0 °C. Mainstem sites temperatures are generally high through most of the summer. Higher temperatures at the mainstem sites are likely due to the lack of canopy around the river which limits shade.

Lower mainstem sites: Temperatures at the lower mainstem sites were very similar. Minimum temperatures ranged from 14.2-18.9°C and maximum temperatures ranged from 23.3-24.0 °C. Mainstem sites temperatures are generally higher than tributary sites.

Pleasant River and tributaries: The Pleasant River sites had minimum values ranging from 15.1-15.8 °C and maximum temperatures ranging from 20.0-22.6 °C. Baker Brook (BB010) and Ditch Brook (DB010) had minimum temperatures ranging from 13.6-14.5 °C and maximum temperatures ranging from 19.0-21.8 °C. Temperatures were lowest at Baker Brook and low at Ditch Brook from August-September. Overall temperatures at these sites were good.

Little River and tributaries: The Little River sites (L060-L010) had minimum values ranging from 12.5-14.8 °C and maximum temperatures ranging from 17.4-20.5 °C. Douglas Brook (DG010) and Tannery Brook sites (TA040, TA010) had minimum temperatures ranging from 10.5-12.4 °C and maximum temperatures ranging from 17.0-18.6 °C. Overall, temperatures at these sites are similar with Tannery Brook being slightly cooler and are good-excellent.

Upper Presumpscot tributaries: The Presumpscot River tributaries had cool temperatures overall and were fairly similar to each other. Otter Brook was the coolest. Overall temperatures were good to excellent.

Lower Presumpscot tributaries: The Piscataqua River and lower Mill Brook sites were similar and were good overall. The upper Mill Brook site (ML-3-) was high. Site ML030 is at the outlet of Highland Lake, so higher temperatures are expected there.

Table 5-6-4: A summary of minimum, maximum, and mean water temperature values (°C) at Presumpscot River Land Trust monitoring sites.

Site	Class	# Sample Points	Mean	Minimum	Maximum	Criterion	# Not Meeting Criterion
Mainstem (ordered from upstream to downstream)							
P200	A	8	19.8	12.0	23.8	n/a	n/a
P170	A	9	19.4	12.8	24.1	n/a	n/a
P150	A	10	20.0	13.1	24.0	n/a	n/a
P135	B	12	18.7	13.3	23.6	n/a	n/a
P110	B	10	19.8	13.3	23.9	n/a	n/a
P089	B	10	19.5	13.5	24.0	n/a	n/a
P080	B	9	20.5	14.1	24.0	n/a	n/a
P065	B	8	21.5	18.9	23.8	n/a	n/a
P060	C	6	19.9	14.3	24.0	n/a	n/a
P050	C	6	19.9	14.3	24.0	n/a	n/a
P030	C	10	20.1	14.2	23.3	n/a	n/a
P020	C	10	20.2	14.2	24.0	n/a	n/a
Pleasant River & Tributaries							
PL040	B	8	17.8	15.8	20.6	n/a	n/a
PL030	B	10	17.2	15.3	20.1	n/a	n/a
PL020	B	10	17.0	15.1	20.0	n/a	n/a
PL010	B	10	18.4	15.2	22.6	n/a	n/a
BB010	B	9	15.7	13.6	19.0	n/a	n/a

DB010	B	8	16.8	14.5	21.8	n/a	n/a
Little River and Tributaries							
L060	B	6	16.3	14.8	18.5	n/a	n/a
L020	B	4	15.3	12.5	17.4	n/a	n/a
L010	B	10	16.8	12.7	20.5	n/a	n/a
DG010	B	12	15.7	12.4	18.6	n/a	n/a
TA040	B	10	14.1	10.5	17.0	n/a	n/a
TA010	B	10	14.7	12.4	17.6	n/a	n/a
Upper Presumpscot River Tributaries							
BL020	B	9	15.5	12.7	19.9	n/a	n/a
BL010	B	10	15.3	11.6	19.2	n/a	n/a
CW020	B	6	16.7	13.9	18.6	n/a	n/a
CW010	B	5	16.9	14.8	18.1	n/a	n/a
IN010	B	5	14.9	12.2	16.5	n/a	n/a
OB020	B	8	14.3	12.4	16.8	n/a	n/a
OBO10	B	9	14.3	11.3	17.4	n/a	n/a
Lower Presumpscot River Tributaries							
PI020	B	10	15.9	13.2	19.1	n/a	n/a
PI010	B	10	17.5	12.9	21.3	n/a	n/a
M030	B	10	20.2	16.3	23.4	n/a	n/a
M010	B	10	17.1	13.9	23.3	n/a	n/a

Figure 5-6-18: Graph of water temperature at sites on the upper mainstem of the Presumpscot River

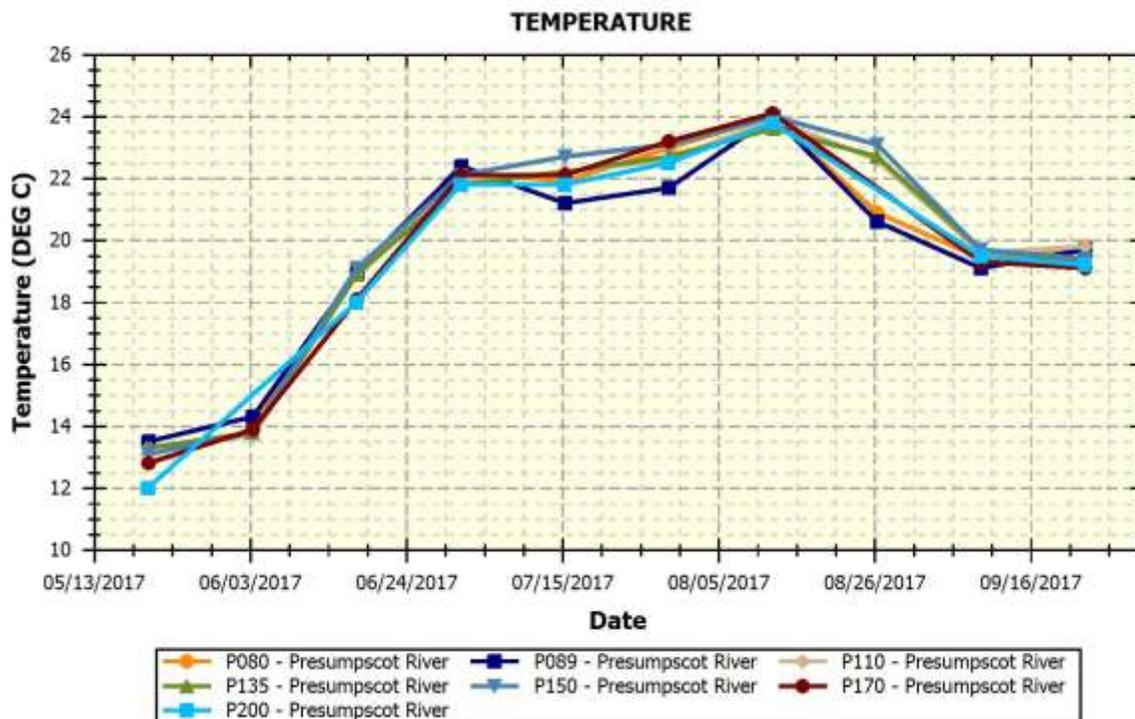


Figure 5-6-19: Graph of water temperature at sites on the lower mainstem of the Presumpscot River

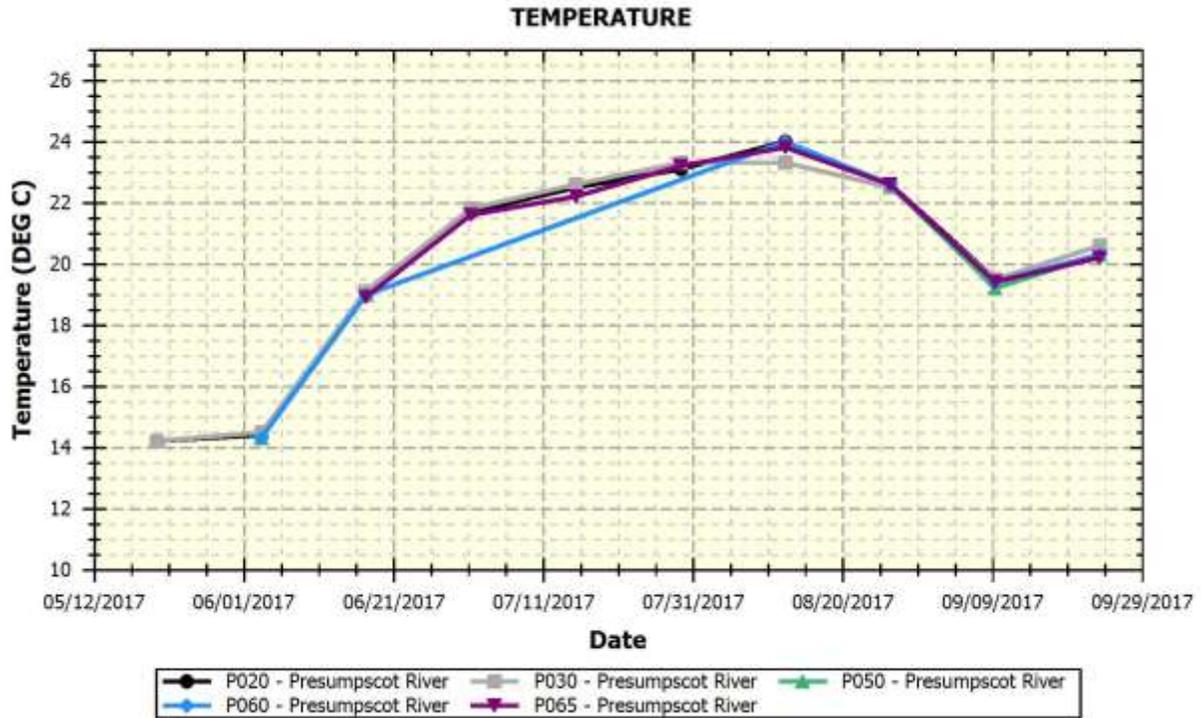


Figure 5-6-20: Graph of water temperature at sites on the Pleasant River and tributaries

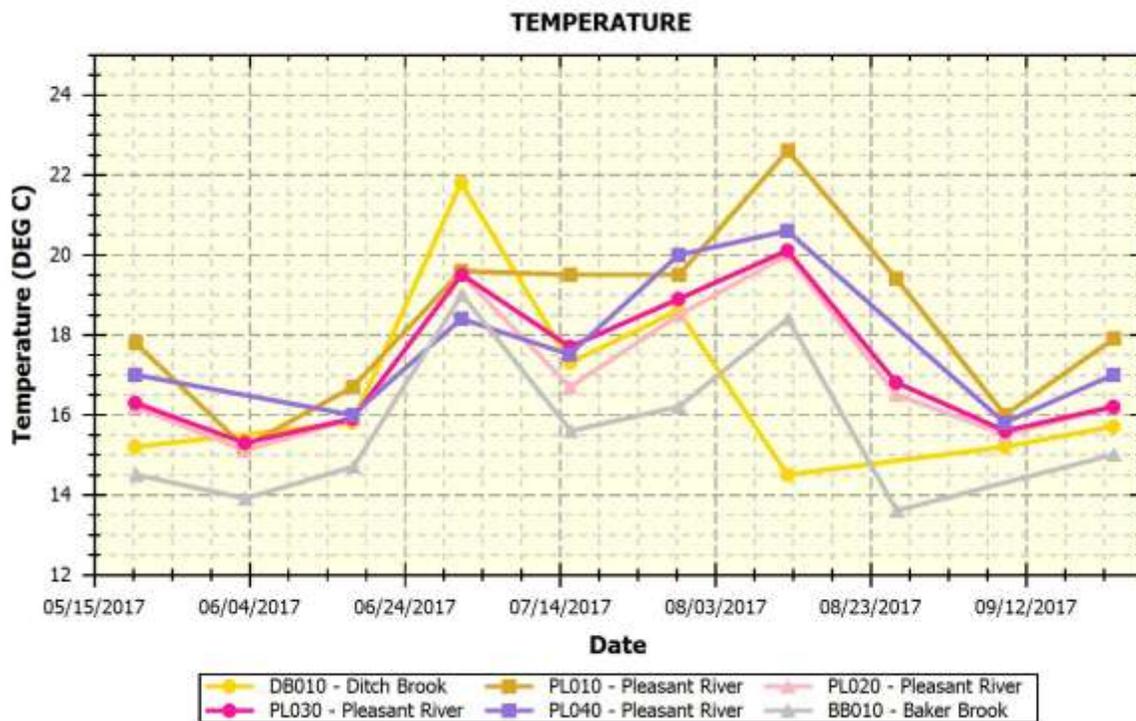


Figure 5-6-21: Graph of water temperature at sites on the Little River and Tributaries.

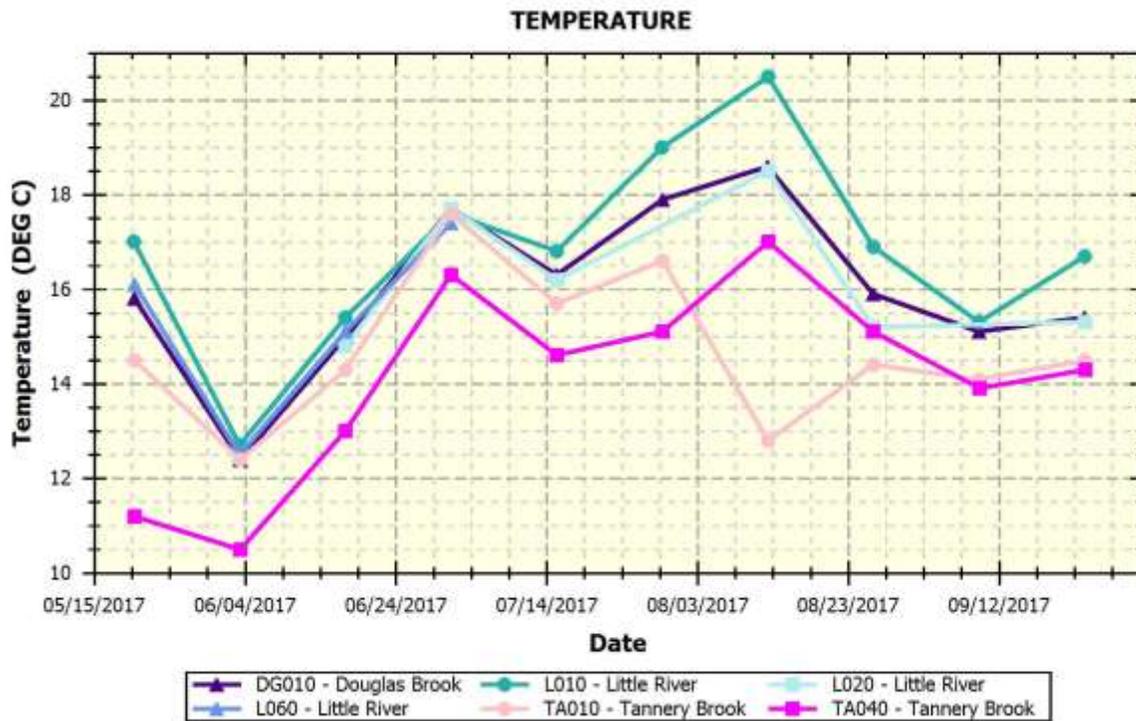


Figure 5-6-22: Graph of water temperature at sites on the upper Presumpscot tributaries.

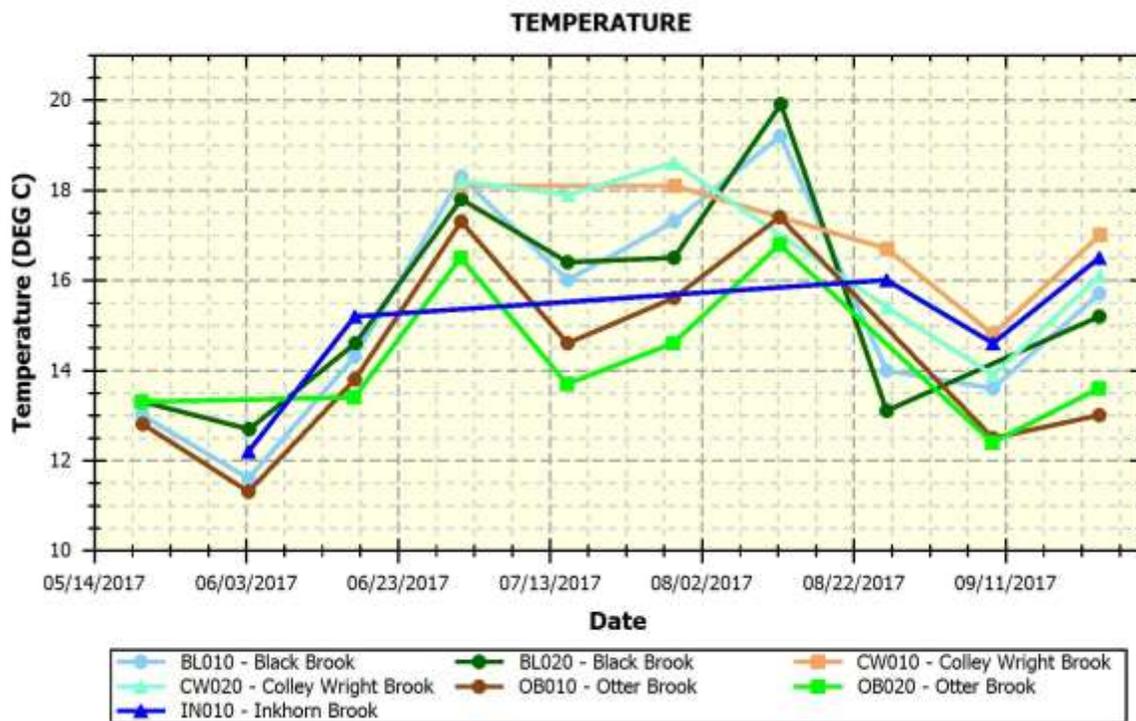
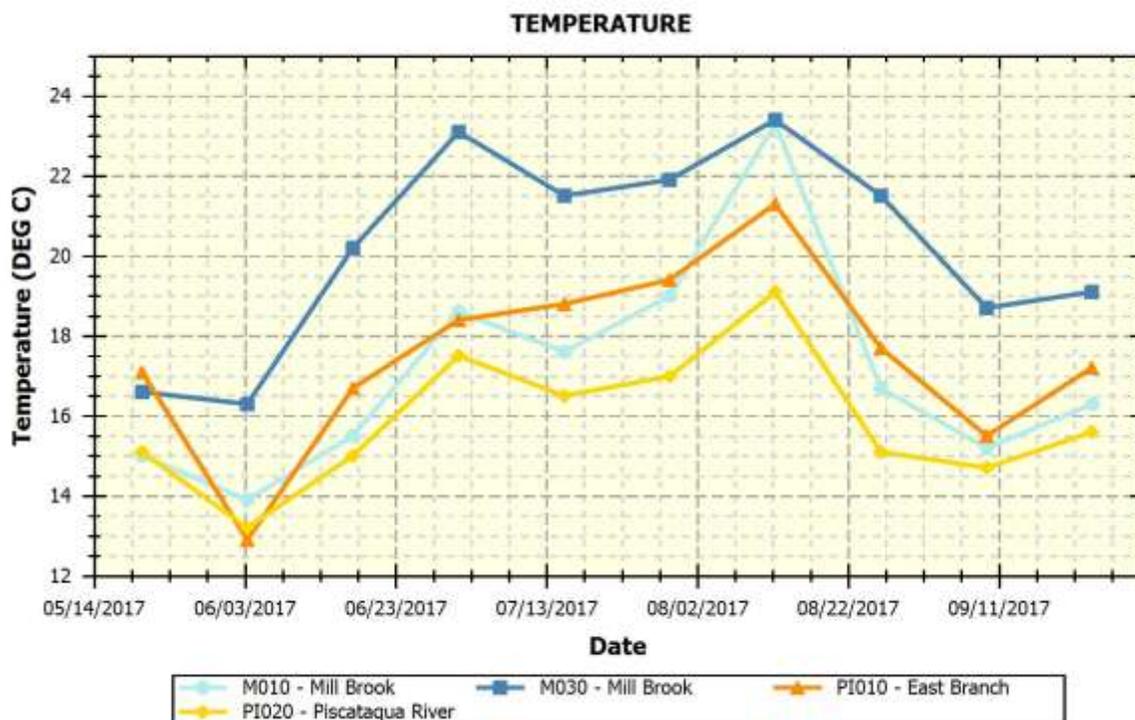


Figure 5-6-23: Graph of water temperature at sites on the lower Presumpscot tributaries.

Specific Conductance

Specific conductance (SPC) is related to the amount of dissolved materials in the water. While there are no numerical standards, a relationship exists between conductivity and chloride which has numerical criteria. In general, streams located in urban areas tend to have higher specific conductance due to polluted urban stormwater runoff. This may also in large part be due to salt buildup in surface and groundwater from road maintenance practices.

2017 Results

Upper mainstem sites: Specific conductance at the upper mainstem sites was overall low. Specific conductance at the mainstem sites was excellent.

Lower mainstem sites: Specific conductance at the lower mainstem sites was overall low. Specific conductance at the mainstem sites was excellent.

Pleasant River and tributaries: Specific conductance at the Pleasant River sites were overall moderate (119-350 $\mu\text{S}/\text{cm}$ range). Ditch Brook (DB010) was fairly low overall and Baker Brook (BB010) was very low. Overall, specific conductance at Pleasant River was fair-good and the tributaries were good-excellent.

Little River and tributaries: Specific conductance at the Little River sites as well as Douglas Brook (DG010) were low-moderate (84-214 $\mu\text{S}/\text{cm}$ range). Values were moderate-high at the Tannery Brook sites, being higher at the lower site (TA010). Overall, specific conductance was good at the Little River and Douglas Brook and poor at Tannery Brook.

Upper Presumpscot tributaries: Specific conductance was lowest at Inkhorn Brook and is considered good. Colley Wright Brook and Otter Brook were similar with values being moderate (75-273 $\mu\text{S}/\text{cm}$ range)-values here were fair-good. Black Brook was the highest (202-420 $\mu\text{S}/\text{cm}$ range) and was poor-fair.

Lower Presumpscot tributaries: In general, the specific conductance at the Piscataqua River site (PI020) was somewhat high, with values ranging from 59-360 $\mu\text{S}/\text{cm}$. The Piscataqua-East Branch site (PI010) was similar to PI020, but slightly lower. The Piscataqua River sites were overall fair. Mill Brook site M030 was low and low-moderate at site M010. Specific conductance at these sites were good to excellent.

Table 5-6-5: A summary of minimum, maximum, and mean values for specific conductance ($\mu\text{S}/\text{cm}$) at Presumpscot River Land Trust monitoring sites.

Site	Class	# Sample Points	Mean	Minimum	Maximum	Criterion	# Not Meeting Criterion
Mainstem (ordered from upstream to downstream)							
P200	A	8	46	22	93	n/a	n/a
P170	A	8	41	34	52	n/a	n/a
P150	A	10	51	47	53	n/a	n/a
P135	B	12	59	54	75	n/a	n/a
P110	B	10	61	57	77	n/a	n/a
P089	B	9	56	8	65	n/a	n/a
P080	B	8	55	8	68	n/a	n/a
P065	B	8	67	59	82	n/a	n/a
P060	C	6	56	51	63	n/a	n/a
P050	C	6	58	50	71	n/a	n/a
P030	C	9	73	63	90	n/a	n/a
P020	C	10	69	58	83	n/a	n/a
Pleasant River & Tributaries							
PL040	B	8	205	131	281	n/a	n/a
PL030	B	9	241	195	290	n/a	n/a
PL020	B	9	257	195	320	n/a	n/a
PL010	B	9	199	119	350	n/a	n/a
BB010	B	9	45.1	32	56	n/a	n/a
DB010	B	8	112	25	146	n/a	n/a
Little River and Tributaries							
L060	B	6	137	111	150	n/a	n/a
L020	B	4	158	124	185	n/a	n/a
L010	B	10	184	124	214	n/a	n/a
DG010	B	12	128	84	171	n/a	n/a
TA040	B	9	297	139	455	n/a	n/a
TA010	B	9	416	301	538	n/a	n/a

Upper Presumpscot River Tributaries							
BL020	B	9	322	207	420	n/a	n/a
BL010	B	9	276	202	324	n/a	n/a
CW020	B	6	210	187	230	n/a	n/a
CW010	B	5	227	211	247	n/a	n/a
IN010	B	5	140	83	176	n/a	n/a
OB020	B	8	206	171	264	n/a	n/a
OB010	B	8	187	75	273	n/a	n/a
Lower Presumpscot River Tributaries							
PI020	B	10	269	59	360	n/a	n/a
PI010	B	10	198	110	277	n/a	n/a
M030	B	9	75	45	87	n/a	n/a
M010	B	9	129	8	219	n/a	n/a

Figure 5-6-24: Graph of specific conductance at sites on the upper mainstem of the Presumpscot River

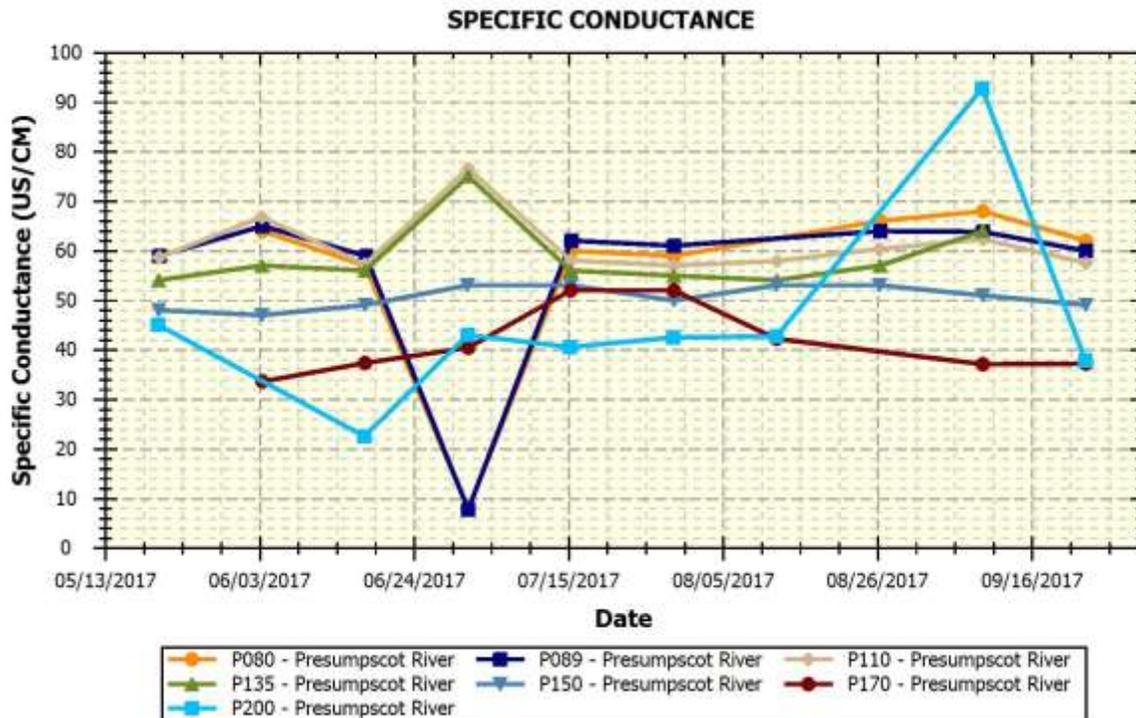


Figure 5-6-25: Graph of specific conductance at sites on the lower mainstem of the Presumpscot River

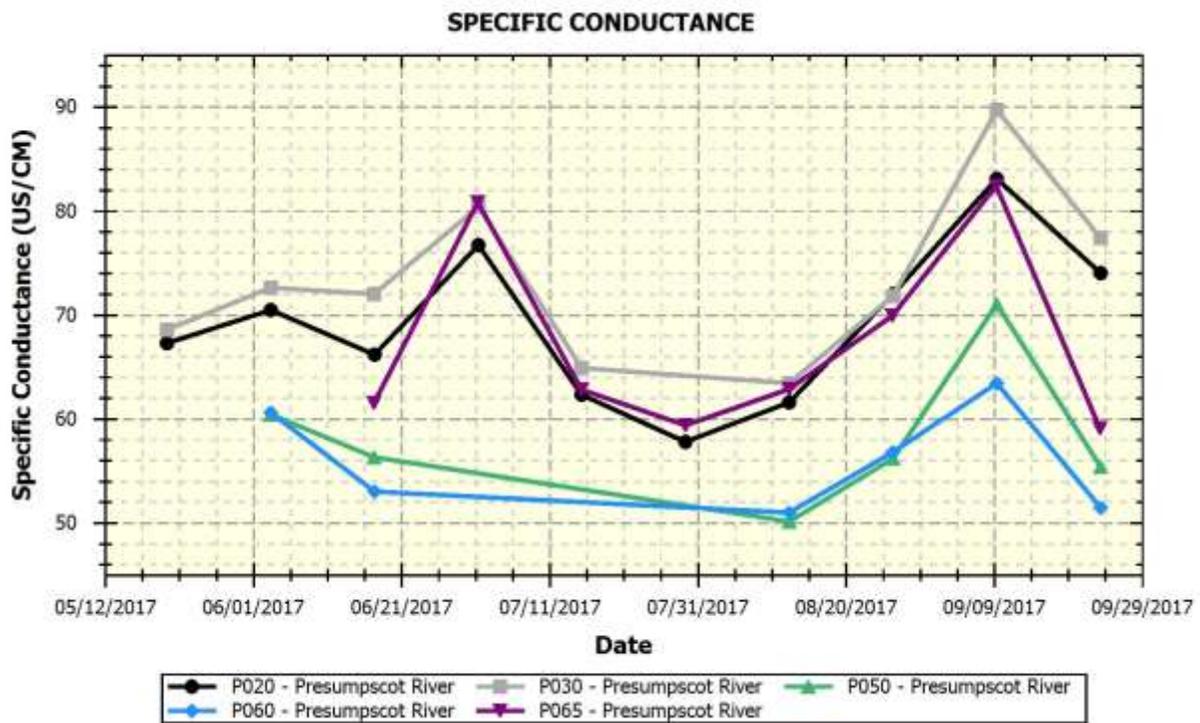


Figure 5-6-26: Graph of specific conductance at sites on the Pleasant River and tributaries.

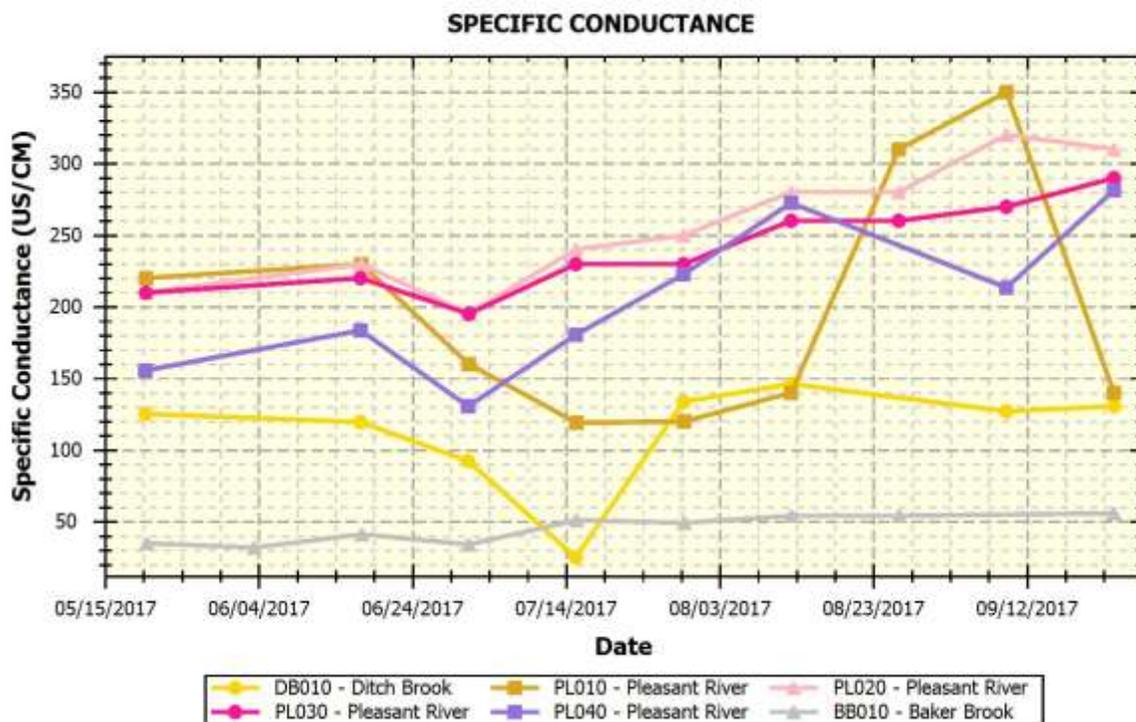


Figure 5-6-27: Graph of specific conductance at sites on the Little River and tributaries.

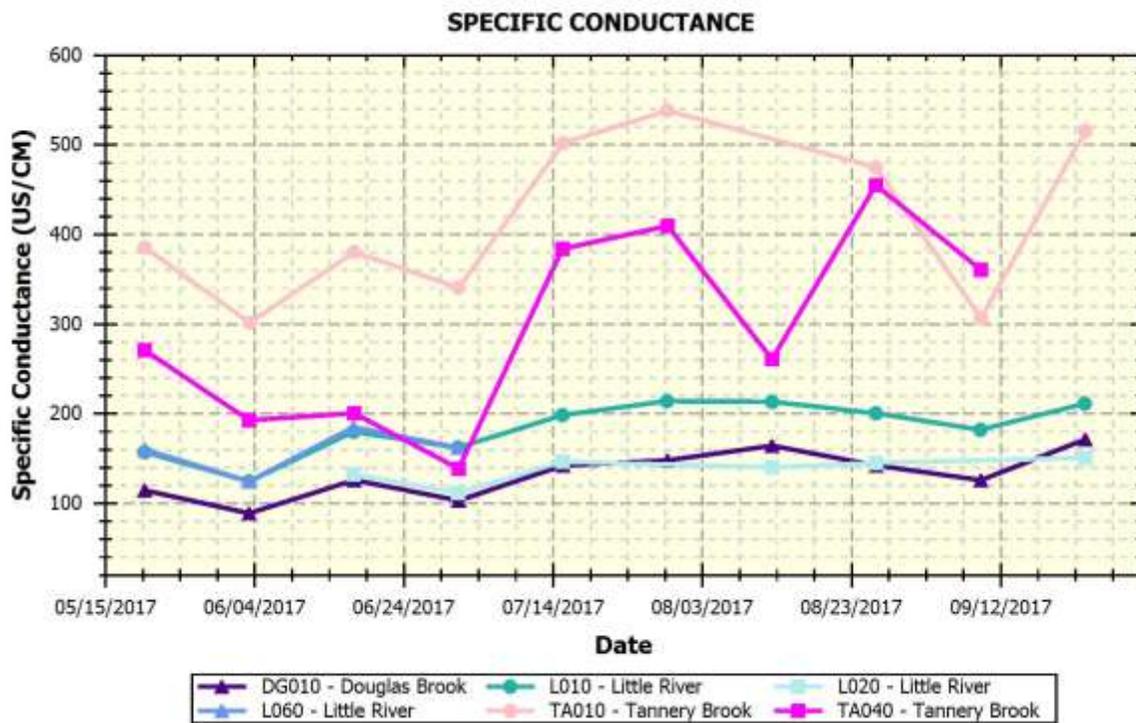


Figure 5-6-28: Graph of specific conductance at sites on the upper Presumpscot tributaries.

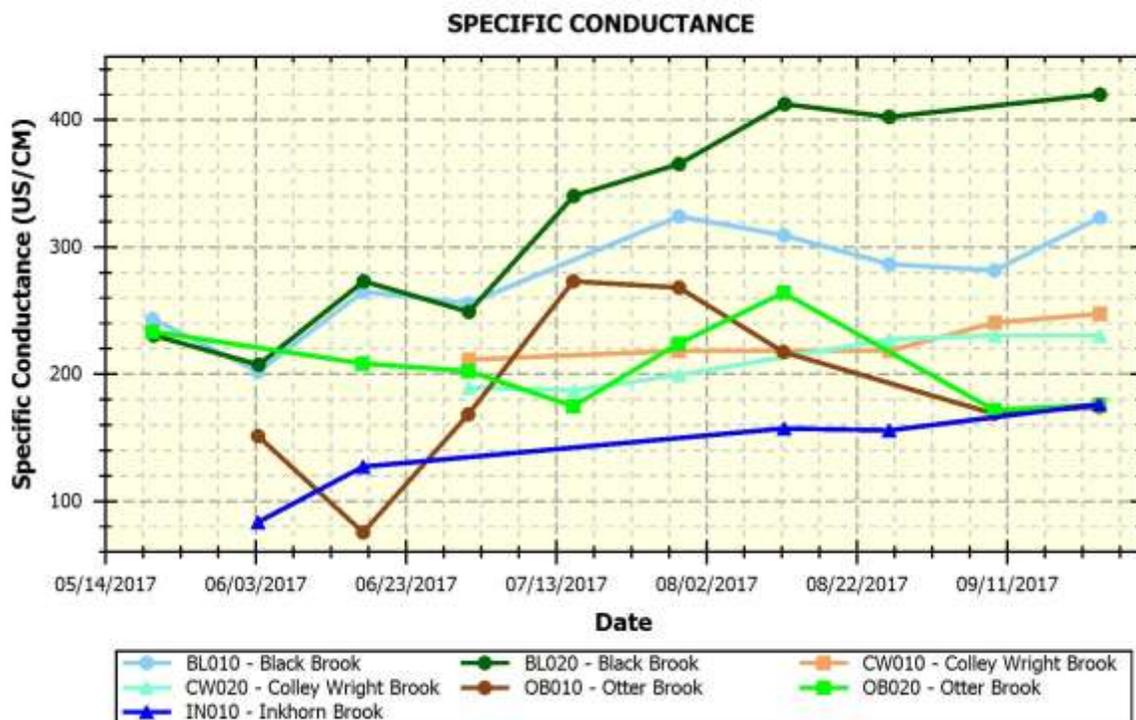
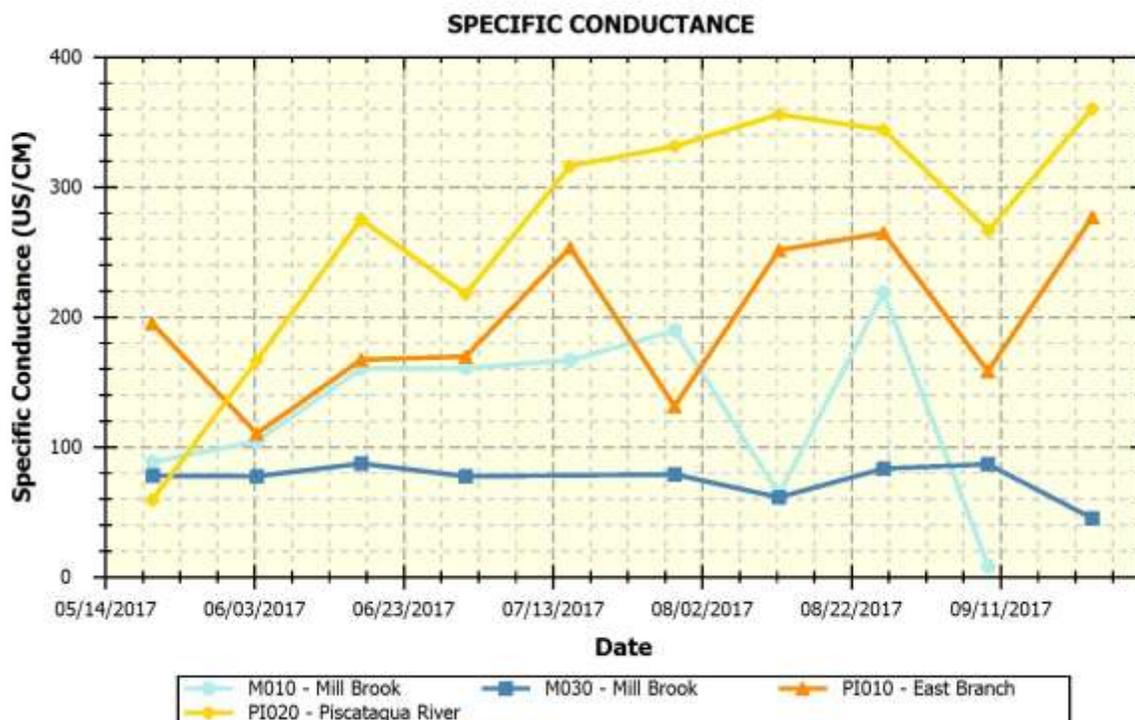


Figure 5-6-29: Graph of specific conductance at sites on the lower Presumpscot tributaries.

Bacteria

Escherichia coli (*E. coli*) bacteria are used as the indicator organism for freshwaters. While this type of bacteria is not a pathogen, its presence in the water may indicate the presence of other organisms including bacteria and viruses that can cause gastrointestinal illnesses. Monitoring should include at least six samples and include a mix of dry and storm event sampling.

Class A criteria for bacteria is “as naturally occurs”. “As naturally occurs” means “conditions with essentially the same physical, chemical and biological characteristics as found in situations with similar habitats free of measurable effects of human activity”. In practice, the Class GPA standard for *E. coli* may be used as a surrogate target if a freshwater’s “natural” bacteria are unknown. Class B criteria for bacteria are as follows: “Between May 15th and September 30th, the number of *E. coli* of human and domestic origin shall not exceed a geometric mean of 64/100 ml (milliliters) or an instantaneous level of 236/100 ml.” Class C criteria are: “Between May 15th and September 30th, the number of *E. coli* of human and domestic origin shall not exceed a geometric mean of 126/100 ml (milliliters) or an instantaneous level of 236/100 ml.” Geometric means are calculated instead of averages because it is more appropriate to use this calculation for something like bacteria where there may be one or more high or low values that can skew the mean.

2017 Results

Upper mainstem sites: Bacteria at the upper mainstem sites were overall low, with the exception of one site and date. Site P135 exceeded the instantaneous criterion on one date (7/1/17). Significant rain occurred prior to 2 sampling dates when there was close to ½" rain in Portland (6/16/17 and 6/30/17). Overall, bacteria levels at the upper mainstem sites were good-excellent.

Lower mainstem sites: Bacteria at the lower mainstem sites were low and there were no exceedances. Overall, bacteria at the lower mainstem sites were excellent.

Pleasant River and tributaries: The Pleasant River sites had high bacteria. The worst site was PL040 which exceeded instantaneous criterion on 8 of 9 sample dates and well exceeded the geometric mean criterion. The other 3 sites exceeded the instantaneous criterion on 1-2 sample dates and exceeded the geometric mean criterion. Baker Brook exceeded instantaneous criterion on 5 of 9 sample dates and well exceeded the geometric mean criterion. Ditch Brook did not have any exceedances. High values did not appear to correlate with rain events. Overall, these sites ranged from poor to excellent.

Little River and tributaries: The three Little River sites exceeded instantaneous criterion on 1-2 dates and all exceeded geometric mean criterion. Douglass Brook and the two Tannery Brook sites exceeded instantaneous criterion on 2-3 dates and exceeded the geometric mean criterion. Higher values at these sites did appear to correlate with rain events. These sites were fair.

Upper Presumpscot River tributaries: The upper Presumpscot River tributaries were variable. Black Brook was the worse site with exceedance of instantaneous criterion on 4-5 sampling dates and exceedance of geometric mean criterion. Colley Wright Brook was only sampled 3 times; the upper site exceeded the instantaneous criterion on all 3 dates. Inkhorn Brook and the two Otter Brook sites exceeded instantaneous criterion on 1-3 dates and exceeded the instantaneous criterion. The highest values at these sites were on 6/17/17, following a significant rain event. Overall, these tributaries ranged from fair to good.

Lower Presumpscot River tributaries: All the lower Presumpscot River tributaries were high with the exception of site M030. The Piscataqua River sites (PI010 & PI020) and Mill Brook (M010) exceeded the instantaneous criterion on 5-7 sample dates and these 3 sites well exceeded the geometric mean criterion. Mill Brook (M010) was the worse site which is not surprising as it is the most urbanized site. These sites with the exception of Mill Brook (M010) were generally high throughout the sample season. These sites ranged from poor to excellent.

Table 5-6-6: A summary of minimum, maximum, and geometric mean values (MPN/100 mL) for bacteria at Presumpscot River Land Trust monitoring sites.

Site	Class	Bacteria Type	# Sample Points	Mean	Minimum	Maximum	Criterion (Insta/geo)	# Not Meeting Criterion
Mainstem (ordered from upstream to downstream)								
P200	A	E. Coli	10	15	2	131	194/64	0
P170	A	E. Coli	10	14	3	46	194/64	0
P150	A	E. Coli	10	9	4	39	194/64	0
P135	B	E. Coli	12	23	5	517	236/64	1
P110	B	E. Coli	10	20	7	63	236/64	0
P089	B	E. Coli	9	21	7	46	236/64	0
P080	B	E. Coli	9	22	8	69	236/64	0
P065	B	E. Coli	8	34	17	101	236/64	0
P060	C	E. Coli	7	52	16	133	236/126	0
P050	C	E. Coli	8	73	16	137	236/126	0
P030	C	E. Coli	10	41	18	96	236/126	0
P020	C	E. Coli	10	55	16	135	236/126	0
Pleasant River & Tributaries								
PL040*	B	E. Coli	9	330	99	>2419	236/64	8
PL030	B	E. Coli	8	136	77	261	236/64	1
PL020	B	E. Coli	9	135	68	261	236/64	1
PL010*	B	E. Coli	9	87	17	>2419	236/64	2
BB010	B	E. Coli	9	200	56	387	236/64	5
DB010	B	E. Coli	9	37	13	117	236/64	0
Little River and Tributaries								
L060	B	E. Coli	5	116	2	547	236/64	1
L020	B	E. Coli	3	172	99	325	236/64	1
L010	B	E. Coli	10	165	98	411	236/64	2
DG010	B	E. Coli	11	123	32	365	236/64	2
TA040	B	E. Coli	9	133	34	980	236/64	2
TA010	B	E. Coli	10	151	61	435	236/64	3
Upper Presumpscot River Tributaries								
BL020	B	E. Coli	8	221	31	980	236/64	4
BL010	B	E. Coli	10	274	114	866	236/64	5
CW020	B	E. Coli	3	461	275	649	236/64	3
CW010	B	E. Coli	3	139	60	210	236/64	0
IN010	B	E. Coli	9	209	115	816	236/64	3
OB020	B	E. Coli	7	102	34	727	236/64	1
OB010	B	E. Coli	10	115	23	435	236/64	1
Lower Presumpscot River Tributaries								
PI020	B	E. Coli	9	243	81	547	236/64	6
PI010	B	E. Coli	10	197	56	488	236/64	5

M030	B	E. Coli	10	36	15	308	236/64	1
M010	B	E. Coli	10	354	23	1414	236/64	7

***PL010 and PL040 geometric mean calculations include one sample point where bacteria were over the maximum reporting limit (>2419.6). Value of 2419.6 was used to calculate the geometric mean.**

Figure 5-6-30: Graph of *E. coli* (MPN/ml) at sites on the upper mainstem of the Presumpscot River.

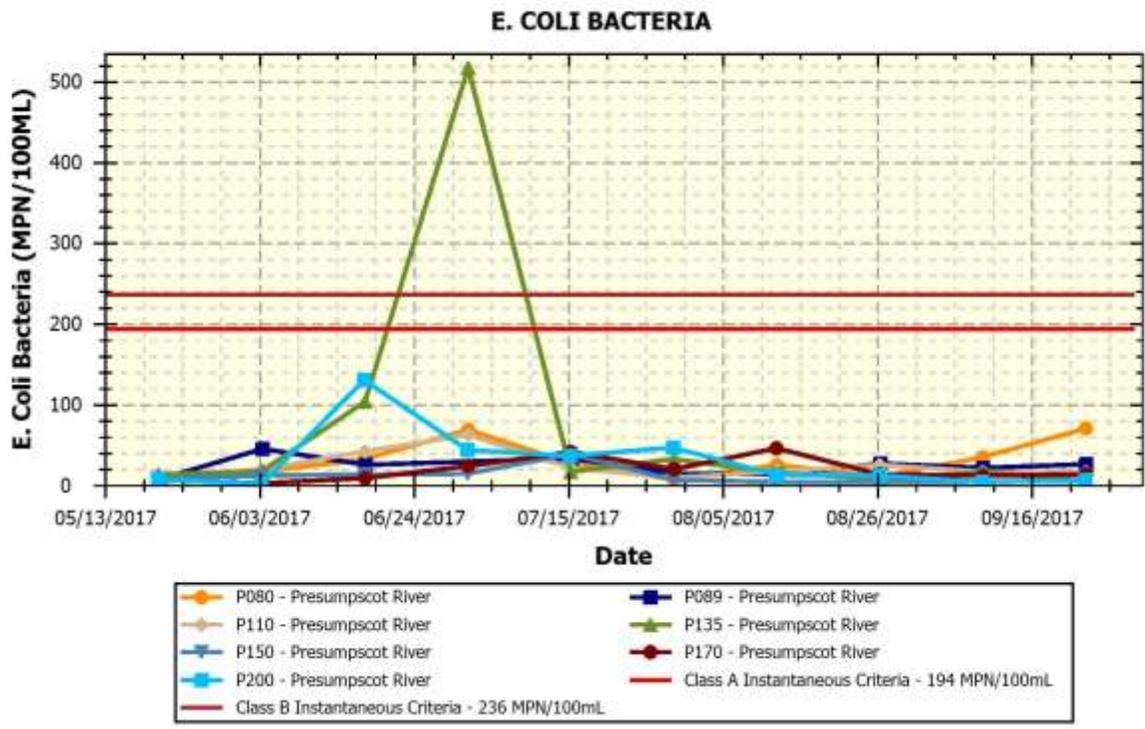


Figure 5-6-31: Graph of *E. coli* (MPN/ml) at sites on the lower mainstem of the Presumpscot River.

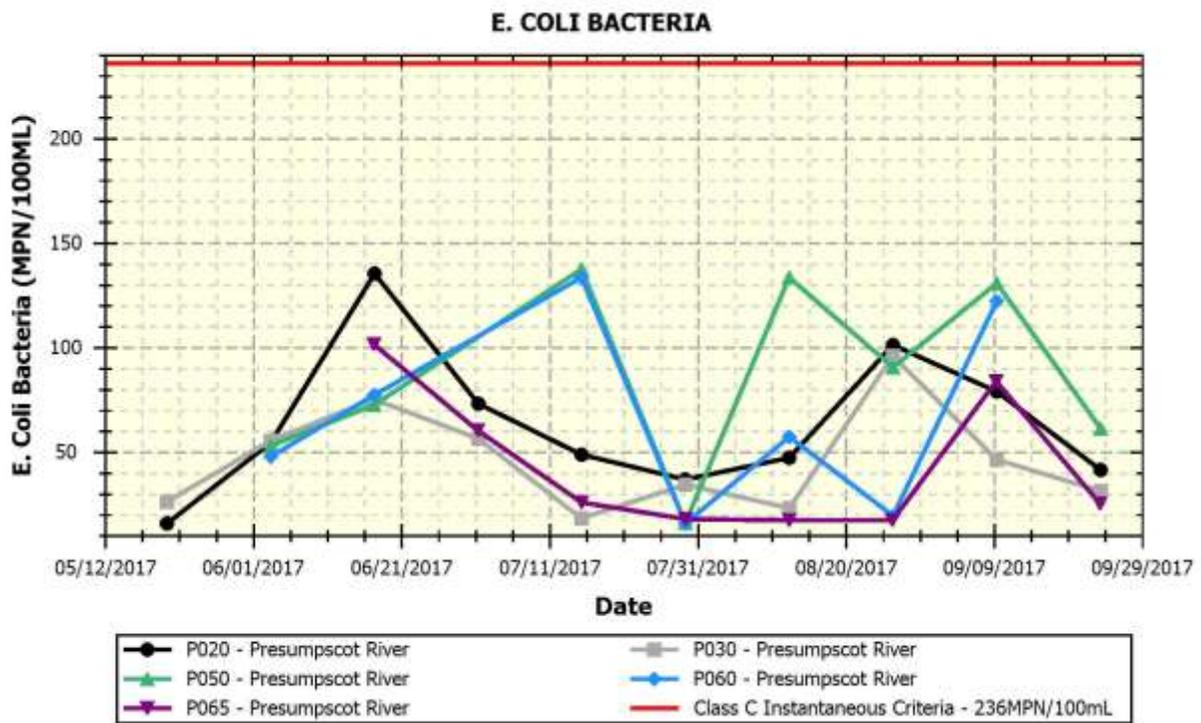


Figure 5-6-32: Graph of *E. coli* (MPN/ml) at sites on the Pleasant River and Tributaries.

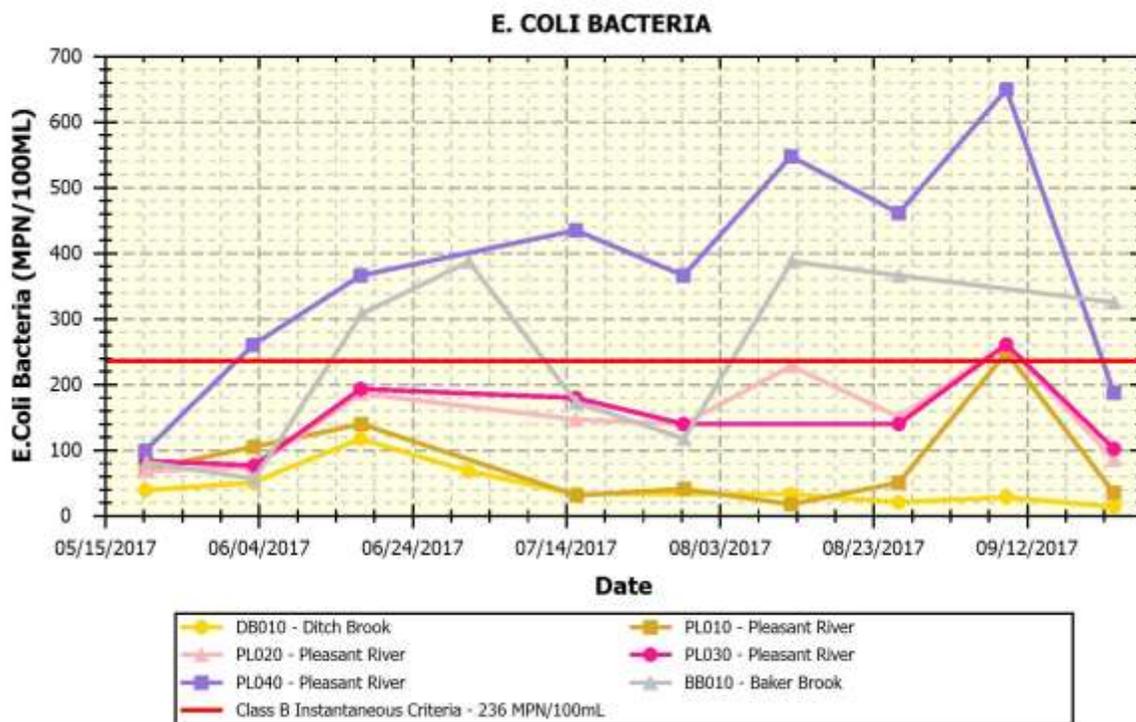


Figure 5-6-33: Graph of *E. coli* (MPN/ml) at sites on the Little River and tributaries.

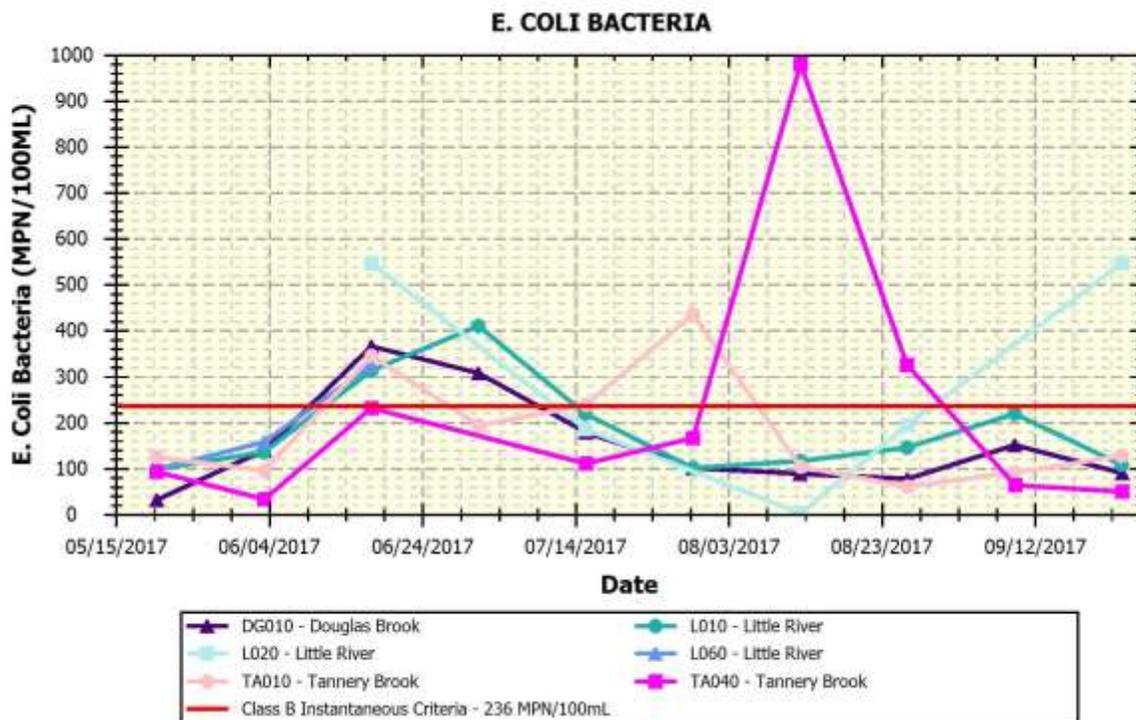


Figure 5-6-34: Graph of *E. coli* (MPN/ml) at sites on the upper Presumpscot tributaries.

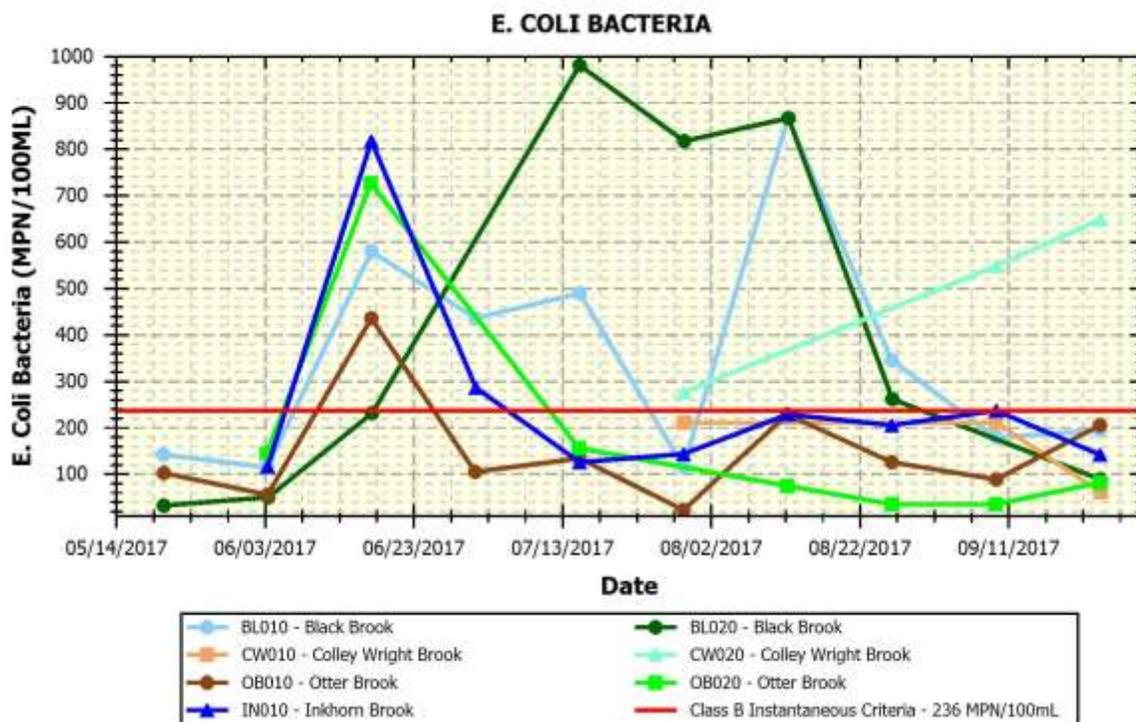
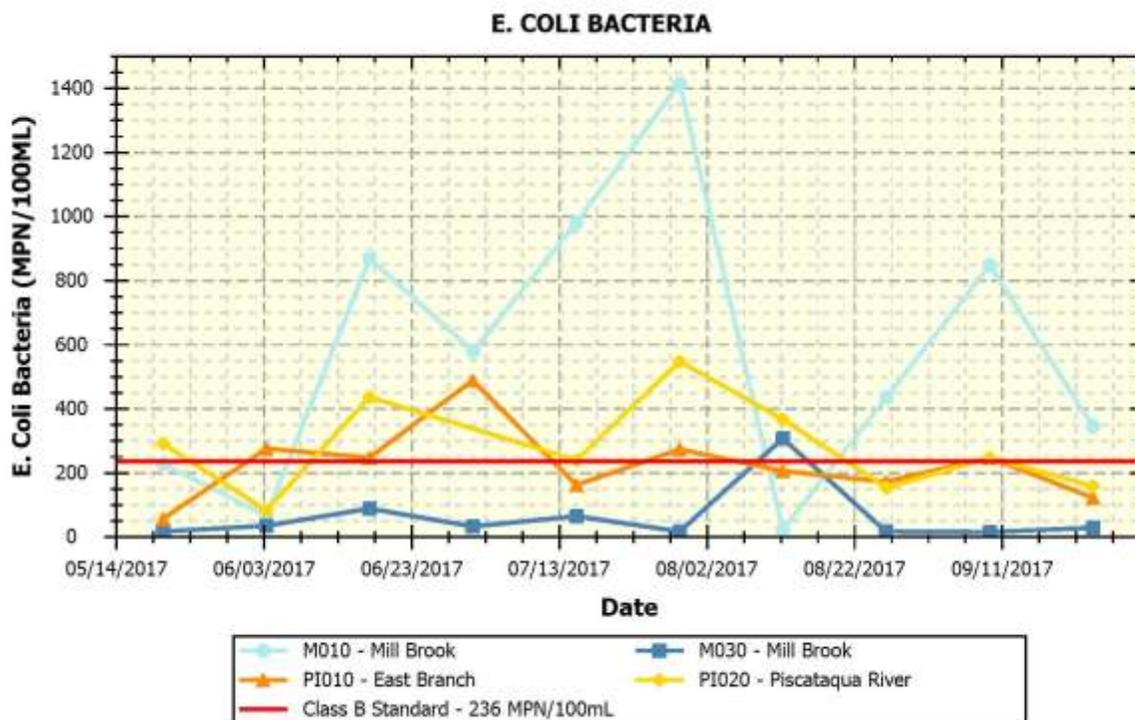


Figure 5-6-35: Graph of *E. coli* (MPN/ml) at sites on the lower Presumpscot tributaries.

Discussion and Recommendations

There are numerous sources of pollution and other stresses to the Presumpscot River watershed that could potentially have an impact on water quality. Some of those sources of pollution and stress may include:

- Non-point source pollution (e.g., eroded soil, fertilizers, pesticides, heavy metals, petroleum residues, road salt, wildlife and pet feces) and polluted stormwater originating from impervious surfaces (e.g., streets, parking lots, driveways, rooftops), agriculture, and forestry.
- Dams and impoundments (which often create more pond-like aquatic habitat conditions that may have higher water temperatures and lower dissolved oxygen concentrations than if the river section was free-flowing).
- Natural effects of wetlands (such as contributing waters to a stream/river that have low dissolved oxygen levels due to the decomposition of large amounts of organic matter, respiration of abundant plant matter, and low re-aeration rates that is characteristic of many wetlands).
- Point sources (e.g., failing private septic systems, wastewater treatment plants, combined sewer overflows [CSO], and industrial discharges) of pollution.

The following are recommendations for future monitoring:

- **Continue early morning sampling to document daily low dissolved oxygen readings. Later day monitoring is not likely to represent critical conditions, which makes it difficult to assess the overall river condition. Early morning monitoring is particularly important during the summer months of July to early September when temperatures are warmest, flows are low, and dissolved oxygen tends to be at the lowest levels.**
- **When sampling dissolved oxygen, make sure to record both dissolved oxygen concentration and percent saturation. At some sites, only percent saturation was recorded. It is important to record both values as dissolved oxygen criteria are based on both concentration and percent saturation. Also, differences in the two can indicate particular issues (e.g. high productivity).**
- **Further monitor *E. coli* bacteria in the tributaries in order to determine sources. Consider bracket sampling to track down possible sources. Possibly partner with DEP to do some follow-up monitoring.**

Appendix A

* Sampling depths are only reported for Tier 1 VRMP sites.

** "N/A" = normal environmental sample ; "D" = field duplicate; "D.O." = dissolved oxygen; "Spec. Cond" = specific conductance; "TDS" = Total dissolved solids; "TSS" = total suspended solids"

Organization Site Code	VRMP Site ID	Date	Time	** Sample Type Qualifier	* Sample Depth	Depth Unit	Water Temp (DEG C)	** D.O. (MG/L)	** D.O. Sat. (%)	** Spec. Cond. (US/CM)	Salinity (PPTH)	Turbidity (NTU)	** TDS (MG/L)	** TSS (MG/L)	E. coli Bacteria (MPN/100ML)	Enterococci (MPN/100ML)
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Presumpscot River & Tributaries - Presumpscot River Watch: Approved Sites

BB010	BAKER BROOK - RPLBK17 - VRMP	5/20/2017	9:40 AM	NA			14.5	9.5	92.7	35					81.3	
BB010	BAKER BROOK - RPLBK17 - VRMP	6/3/2017	10:20 AM	NA			13.9	10.0	97.0	32					56.3	
BB010	BAKER BROOK - RPLBK17 - VRMP	6/17/2017	8:56 AM	NA			14.7	8.9	88.0	41					307.6	
BB010	BAKER BROOK - RPLBK17 - VRMP	7/1/2017	8:45 AM	NA			19.0	8.1	87.8	34					387.3	
BB010	BAKER BROOK - RPLBK17 - VRMP	7/15/2017	8:20 AM	NA			15.6	8.3	83.7	51					172.3	
BB010	BAKER BROOK - RPLBK17 - VRMP	7/29/2017	8:20 AM	NA			16.2	8.1	84.1	49					117.8	
BB010	BAKER BROOK - RPLBK17 - VRMP	8/12/2017	8:34 AM	NA			18.4	7.4	79.8	54					387.3	
BB010	BAKER BROOK - RPLBK17 - VRMP	8/26/2017	8:05 AM	NA			13.6	8.4	79.1	54					365.4	
BB010	BAKER BROOK - RPLBK17 - VRMP	9/23/2017	7:56 AM	NA			15.0	7.8	77.4	56					325.5	
BL010	BLACK BROOK- RBK05 -VRMP	5/20/2017	7:16 AM	NA			13.0	8.6	81.4	243					142.1	
BL010	BLACK BROOK- RBK05 -VRMP	6/3/2017	7:06 AM	NA			11.6	9.6	88.4	201.8					114.5	
BL010	BLACK BROOK- RBK05 -VRMP	6/17/2017	7:45 AM	NA			14.3	8.5	83.8	265					579.4	
BL010	BLACK BROOK- RBK05 -VRMP	7/1/2017	7:31 AM	NA			18.3	8.6	91.4	255.3					435.2	
BL010	BLACK BROOK- RBK05 -VRMP	7/15/2017	7:51 AM	NA			16.0	7.7	78.3						488.4	
BL010	BLACK BROOK- RBK05 -VRMP	7/29/2017	7:43 AM	NA			17.3	6.8	71.0	323.8					115.3	
BL010	BLACK BROOK- RBK05 -VRMP	8/12/2017	8:02 AM	NA			19.2	6.2	67.3	308.7					866.4	
BL010	BLACK BROOK- RBK05 -VRMP	8/26/2017	7:32 AM	NA			14.0	7.6	74.6	286.2					344.8	
BL010	BLACK BROOK- RBK05 -VRMP	9/9/2017	7:47 AM	NA			13.6	8.5	82.8	281.1					179.3	
BL010	BLACK BROOK- RBK05 -VRMP	9/23/2017	7:46 AM	NA			15.7	5.5	54.6	322.9					193.5	
BLO20	BLACK BROOK-RBK49-VRMP	5/20/2017	9:22 AM	NA			13.3	8.4	80.4	230					31.3	
BLO20	BLACK BROOK-RBK49-VRMP	6/3/2017	10:05 AM	NA			12.7	7.4	71.1	207					49.6	
BLO20	BLACK BROOK-RBK49-VRMP	6/17/2017	8:40 AM	NA			14.6	6.0	57.8	273					231	
BLO20	BLACK BROOK-RBK49-VRMP	7/1/2017	8:30 AM	NA			17.8	6.5	69.4	249						
BLO20	BLACK BROOK-RBK49-VRMP	7/15/2017	8:35 AM	NA			16.4	5.4	56.9	340					980.4	
BLO20	BLACK BROOK-RBK49-VRMP	7/29/2017	8:37 AM	NA			16.5	4.6	48.1	365					816.4	
BLO20	BLACK BROOK-RBK49-VRMP	8/12/2017	9:01 AM	NA			19.9	2.2	25.0	412					866.4	
BLO20	BLACK BROOK-RBK49-VRMP	8/26/2017	8:16 AM	NA			13.1	4.5	41.8	402					261.3	
BLO20	BLACK BROOK-RBK49-VRMP	9/23/2017	8:15 AM	NA			15.2	2.6	25.0	420					88.3	
CW010	COLLEY WRIGHT BRK - RCW10 - VRMP	7/1/2017	8:10 AM	NA			18.1	8.6	91.6	211						
CW010	COLLEY WRIGHT BRK - RCW10 - VRMP	7/29/2017	9:05 AM	NA			18.1	6.9	72.3	218					209.8	
CW010	COLLEY WRIGHT BRK - RCW10 - VRMP	8/26/2017	9:58 AM	NA			16.7	6.6	68.7	218						
CW010	COLLEY WRIGHT BRK - RCW10 - VRMP	9/9/2017	8:30 AM	NA			14.8	7.9	77.2	240					209.8	
CW010	COLLEY WRIGHT BRK - RCW10 - VRMP	9/23/2017	9:06 AM	NA			17.0	4.9	50.0	247					60.5	
CW020	COLLEY WRIGHT BRK - RCW28 - VRMP	7/1/2017	8:34 AM	NA			18.2	8.8	93.0	189						

Presumpscot River & Tributaries - Presumpscot River Watch: Approved Sites															
CW020	COLLEY WRIGHT BRK - RCW28 - VRMP	7/15/2017	8:54 AM	NA			17.9	7.9	83.0	187					
CW020	COLLEY WRIGHT BRK - RCW28 - VRMP	7/29/2017	8:42 AM	NA			18.6	7.5	78.6	199					275.5
CW020	COLLEY WRIGHT BRK - RCW28 - VRMP	7/29/2017	8:42 AM	D											410.6
CW020	COLLEY WRIGHT BRK - RCW28 - VRMP	8/26/2017	10:19 AM	NA			15.4	7.1	72.6	227					
CW020	COLLEY WRIGHT BRK - RCW28 - VRMP	9/9/2017	8:55 AM	NA			13.9	8.4	80.6	230					547.5
CW020	COLLEY WRIGHT BRK - RCW28 - VRMP	9/23/2017	9:27 AM	NA			16.1	7.2	72.0	230					648.8
DB010	DITCH BROOK - RPL00 - VRMP	5/20/2017	5:42 AM	NA			15.2		92.9	125.1					38.4
DB010	DITCH BROOK - RPL00 - VRMP	6/3/2017	6:00 AM	NA											50.4
DB010	DITCH BROOK - RPL00 - VRMP	6/3/2017	6:00 AM	D											53.8
DB010	DITCH BROOK - RPL00 - VRMP	6/17/2017	5:50 AM	NA			15.8		96.3	119.7					117.2
DB010	DITCH BROOK - RPL00 - VRMP	7/1/2017	6:17 AM	NA			21.8	8.3	95.0	92.2					67.7
DB010	DITCH BROOK - RPL00 - VRMP	7/15/2017	6:05 AM	NA			17.3		95.5	25					33.1
DB010	DITCH BROOK - RPL00 - VRMP	7/29/2017	6:08 AM	NA			18.6	8.2	88	133.7					
DB010	DITCH BROOK - RPL00 - VRMP	8/12/2017	6:20 AM	NA			14.5	8.52	94.3	146.3					33.1
DB010	DITCH BROOK - RPL00 - VRMP	8/26/2017	6:30 AM	NA											19.9
DB010	DITCH BROOK - RPL00 - VRMP	9/9/2017	6:32 AM	NA			15.2		96.4	127.2					28.1
DB010	DITCH BROOK - RPL00 - VRMP	9/23/2017	6:40 AM	NA			15.7		95.1	130.7					13.4
DG010	DOUGLAS BROOK - RLTNBDG20 - VRMP	5/20/2017	7:33 AM	NA			15.8	7.99	80.4	114					31.7
DG010	DOUGLAS BROOK - RLTNBDG20 - VRMP	5/20/2017	8:05 AM	NA			15.5	9.08	91.5	127.2					
DG010	DOUGLAS BROOK - RLTNBDG20 - VRMP	6/3/2017	7:22 AM	NA			12.4	9.09	84.5	84					114.5
DG010	DOUGLAS BROOK - RLTNBDG20 - VRMP	6/3/2017	7:46 AM	NA			12.4	12.86	92.5	89					139.6
DG010	DOUGLAS BROOK - RLTNBDG20 - VRMP	6/17/2017	8:06 AM	NA			15	9.35	92.7	126					365.4
DG010	DOUGLAS BROOK - RLTNBDG20 - VRMP	7/1/2017	7:45 AM	NA			17.7	8.43	88.6	103					307.6
DG010	DOUGLAS BROOK - RLTNBDG20 - VRMP	7/15/2017	7:45 AM	NA			16.3	8.23	84.2	142					178.5
DG010	DOUGLAS BROOK - RLTNBDG20 - VRMP	7/29/2017	8:25 AM	NA			17.9	7.94	83.3	148					101.4
DG010	DOUGLAS BROOK - RLTNBDG20 - VRMP	8/12/2017	7:40 AM	NA			18.6	6.94	74.3	164					88.4
DG010	DOUGLAS BROOK - RLTNBDG20 - VRMP	8/26/2017	8:06 AM	NA			15.9	6.89	68.1	142					77.6
DG010	DOUGLAS BROOK - RLTNBDG20 - VRMP	9/9/2017	7:47 AM	NA			15.1	8.72	87	126					151.5
DG010	DOUGLAS BROOK - RLTNBDG20 - VRMP	9/23/2017	8:15 AM	NA			15.4	6.33	63.7	171					89.8
PI010	E. BRANCH PISCAT. RVR - RPSEB05 - VRMP	5/20/2017	7:30 AM	NA			17.1	7.62	79.1	195					56.5
PI010	E. BRANCH PISCAT. RVR - RPSEB05 - VRMP	6/3/2017	7:20 AM	NA			12.9	9.77	92.6	109.9					275.5
PI010	E. BRANCH PISCAT. RVR - RPSEB05 - VRMP	6/17/2017	7:35 AM	NA			16.7	7.47	76.9	167					248.1
PI010	E. BRANCH PISCAT. RVR - RPSEB05 - VRMP	7/1/2017	7:30 AM	NA			18.4	7.96	89.7	169.2					488.4
PI010	E. BRANCH PISCAT. RVR - RPSEB05 - VRMP	7/15/2017	7:30 AM	NA			18.8	6.39	68.6	253.3					160.7
PI010	E. BRANCH PISCAT. RVR - RPSEB05 - VRMP	7/29/2017	7:38 AM	NA			19.4	6.87	74.7	131.4					272.3
PI010	E. BRANCH PISCAT. RVR - RPSEB05 - VRMP	7/29/2017	7:38 AM	D			19.4	6.85	74.5	195.3					387.3
PI010	E. BRANCH PISCAT. RVR - RPSEB05 - VRMP	8/12/2017	7:35 AM	NA			21.3	6.85	77.4	251.2					204.6
PI010	E. BRANCH PISCAT. RVR - RPSEB05 - VRMP	8/26/2017	7:10 AM	NA			17.7	6.21	65.3	264.7					172.3
PI010	E. BRANCH PISCAT. RVR - RPSEB05 - VRMP	9/9/2017	7:55 AM	NA			15.5	7.65	76.8	158.3					248.1
PI010	E. BRANCH PISCAT. RVR - RPSEB05 - VRMP	9/23/2017	7:30 AM	NA			17.2	6.17	64.1	277					122.3
IN010	INKHORN BROOK - RIK05 - VRMP	6/3/2017	7:35 AM	NA			12.2	8.3	77.4	83.5					115.3
IN010	INKHORN BROOK - RIK05 - VRMP	6/17/2017	7:30 AM	NA			15.2	6.03	61.4	127					816.4
IN010	INKHORN BROOK - RIK05 - VRMP	7/1/2017	8:30 AM	NA											285.1
IN010	INKHORN BROOK - RIK05 - VRMP	7/15/2017	7:16 AM	NA											125

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IN010	INKHORN BROOK - RIK05 - VRMP	7/29/2017	7:35 AM	NA									143
IN010	INKHORN BROOK - RIK05 - VRMP	8/12/2017	7:15 AM	NA			5.06	57	157				228.2
IN010	INKHORN BROOK - RIK05 - VRMP	8/26/2017	7:50 AM	NA		16	5.53	56	155.5				204.6
IN010	INKHORN BROOK - RIK05 - VRMP	9/9/2017	7:42 AM	NA		14.6	6.16	60.8					235.9
IN010	INKHORN BROOK - RIK05 - VRMP	9/23/2017	7:34 AM	NA		16.5	4.6	46.4	176.2				141.4
L010	LITTLE RIVER - RLT08 - VRMP	5/20/2017	7:00 AM	NA		17	7.83	81	157				98.5
L010	LITTLE RIVER - RLT08 - VRMP	6/3/2017	7:05 AM	NA		12.7		89.5	124				135.4
L010	LITTLE RIVER - RLT08 - VRMP	6/17/2017	7:05 AM	NA		15.4		92.5	180				313
L010	LITTLE RIVER - RLT08 - VRMP	7/1/2017	7:20 AM	NA		17.6		94.2	162				410.6
L010	LITTLE RIVER - RLT08 - VRMP	7/15/2017	7:10 AM	NA		16.8		83.7	198				218.7
L010	LITTLE RIVER - RLT08 - VRMP	7/29/2017	7:11 AM	NA		19		80.3	214				101.7
L010	LITTLE RIVER - RLT08 - VRMP	7/29/2017	7:11 AM	D		19		80	216				172.2
L010	LITTLE RIVER - RLT08 - VRMP	8/12/2017	8:20 AM	NA		20.5		81.8	213				116.9
L010	LITTLE RIVER - RLT08 - VRMP	8/26/2017	7:10 AM	NA		16.9		76	200				145
L010	LITTLE RIVER - RLT08 - VRMP	9/9/2017	7:30 AM	NA		15.3		79.8	182				218.7
L010	LITTLE RIVER - RLT08 - VRMP	9/23/2017	7:25 AM	NA		16.7		80	211				107.6
L060	LITTLE RIVER - RLT101- VRMP	6/17/2017	7:25 AM	NA		14.8	8.37	82.5	131.8				547.5
L060	LITTLE RIVER - RLT101- VRMP	7/1/2017	7:11 AM	NA		17.7	9.2	96.7	111.4				
L060	LITTLE RIVER - RLT101- VRMP	7/15/2017	7:17 AM	NA		16.2	8.2	82.5	146				185
L060	LITTLE RIVER - RLT101- VRMP	8/12/2017	8:37 AM	NA		18.5	7.57	80.8	140				2
L060	LITTLE RIVER - RLT101- VRMP	8/26/2017	6:50 AM	NA		15.2	7.14	71.1	145				193.5
L060	LITTLE RIVER - RLT101- VRMP	9/23/2017	9:07 AM	NA		15.3	7.5	74.8	150.5				547.5
L020	LITTLE RIVER - RLT15 - VRMP	5/20/2017	7:15 AM	NA		16.1	8.4	85	160				98.7
L020	LITTLE RIVER - RLT15 - VRMP	6/3/2017	7:30 AM	NA		12.5		93	124				157.6
L020	LITTLE RIVER - RLT15 - VRMP	6/17/2017	7:25 AM	NA		15.1		94	185				325.5
L020	LITTLE RIVER - RLT15 - VRMP	7/1/2017	7:40 AM	NA		17.4		98.4	162				
M010	MILL BROOK - RML01 - VRMP	5/20/2017	7:50 AM	NA		15	9.15	90.7	88.1				228.2
M010	MILL BROOK - RML01 - VRMP	6/3/2017	7:50 AM	NA		13.9	10.6	101.8	104.3				67
M010	MILL BROOK - RML01 - VRMP	6/17/2017	7:00 AM	NA		15.5	8.97	89.8	160				866.4
M010	MILL BROOK - RML01 - VRMP	7/1/2017	8:15 AM	NA		18.6	8.03	85.7	160.6				579.4
M010	MILL BROOK - RML01 - VRMP	7/15/2017	8:15 AM	NA		17.6	7.62	79.4	166.3				980.4
M010	MILL BROOK - RML01 - VRMP	7/29/2017	8:25 AM	NA		19	5.4	58.21	189.3				1413.6
M010	MILL BROOK - RML01 - VRMP	8/12/2017	7:42 AM	NA		23.3	7.17	86.1	63.4				23.1
M010	MILL BROOK - RML01 - VRMP	8/12/2017	7:42 AM	D									24
M010	MILL BROOK - RML01 - VRMP	8/26/2017	8:08 AM	NA		16.7	7.09	73	218.7				435.2
M010	MILL BROOK - RML01 - VRMP	9/9/2017	8:10 AM	NA		15.2	8.33	82.8	8				847.5
M010	MILL BROOK - RML01 - VRMP	9/23/2017	8:10 AM	NA		16.3	7.73	77.8					344.8
M030	MILL BROOK - RML63 - VRMP	5/20/2017	8:50 AM	NA		16.6	9.23	94.4	77.7				17.1
M030	MILL BROOK - RML63 - VRMP	6/3/2017	7:20 AM	NA		16.3	9.19	92.9	77.2				33.5
M030	MILL BROOK - RML63 - VRMP	6/17/2017	7:20 AM	NA		20.2	7.82	86.3	87				88.2
M030	MILL BROOK - RML63 - VRMP	7/1/2017	7:22 AM	NA		23.1	8.3	97.1	77.2				33.1
M030	MILL BROOK - RML63 - VRMP	7/15/2017	7:35 AM	NA		21.5	7.64	86.5					63.8
M030	MILL BROOK - RML63 - VRMP	7/29/2017	7:48 AM	NA		21.9	7.33	83.67	78.6				17.5
M030	MILL BROOK - RML63 - VRMP	8/12/2017	7:15 AM	NA		23.4	6.91	81.3	61.2				307.6

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M030	MILL BROOK - RML63 - VRMP	8/26/2017	7:22 AM	NA			21.5	6.43	72.7	83.3			16
M030	MILL BROOK - RML63 - VRMP	9/9/2017	7:30 AM	NA			18.7	7.94	85.1	86.4			14.8
M030	MILL BROOK - RML63 - VRMP	9/23/2017	7:35 AM	NA			19.1	6.32	68.2	44.7			29.2
OB010	OTTER BROOK - ROT06 - VRMP	5/20/2017	9:10 AM	NA			12.8	6.56	62.1				101.7
OB010	OTTER BROOK - ROT06 - VRMP	5/20/2017	9:10 AM	D									108.1
OB010	OTTER BROOK - ROT06 - VRMP	6/3/2017	7:37 AM	NA			11.3	5.33	48.6	151.1			54.6
OB010	OTTER BROOK - ROT06 - VRMP	6/17/2017	7:32 AM	NA			13.8	3.84	36.9	75.2			435.2
OB010	OTTER BROOK - ROT06 - VRMP	7/1/2017	7:30 AM	NA			17.3	1.74	18.1	168			104.6
OB010	OTTER BROOK - ROT06 - VRMP	7/15/2017	7:30 AM	NA			14.6	3.3	32.4	273			133.4
OB010	OTTER BROOK - ROT06 - VRMP	7/29/2017	7:15 AM	NA			15.6	4.05	40.6	268			22.6
OB010	OTTER BROOK - ROT06 - VRMP	8/12/2017	6:45 AM	NA			17.4	2.56	26.8	217.2			228.2
OB010	OTTER BROOK - ROT06 - VRMP	8/26/2017	6:55 AM	NA									125
OB010	OTTER BROOK - ROT06 - VRMP	9/9/2017	7:22 AM	NA			12.5		33	168.5			88.2
OB010	OTTER BROOK - ROT06 - VRMP	9/23/2017	7:32 AM	NA			13		43	173.9			204.6
OB020	OTTER BROOK-ROT10-VRMP	5/20/2017	6:02 AM	NA			13.3		22.8	233.4			
OB020	OTTER BROOK-ROT10-VRMP	6/3/2017	6:30 AM	NA									143.9
OB021	OTTER BROOK-ROT10-VRMP	6/17/2017	6:07 AM	NA			13.4		59.4	207.9			727
OB020	OTTER BROOK-ROT10-VRMP	7/1/2017	6:28 AM	NA			16.5	3.8	43.9	201.9			
OB020	OTTER BROOK-ROT10-VRMP	7/15/2017	6:25 AM	NA			13.7		60.2	174.5			155.3
OB021	OTTER BROOK-ROT10-VRMP	7/29/2017	6:24 AM	NA			14.6	5.11	50	223.8			
OB022	OTTER BROOK-ROT10-VRMP	8/12/2017	6:35 AM	NA			16.8	3.69	41.6	263.7			73.8
OB023	OTTER BROOK-ROT10-VRMP	8/26/2017	6:46 AM	NA									34.1
OB024	OTTER BROOK-ROT10-VRMP	9/9/2017	6:49 AM	NA			12.4		53.4	171.4			35
OB025	OTTER BROOK-ROT10-VRMP	9/23/2017	6:55 AM	NA			13.6		61.4	175.4			81.3
PI020	PISCATAQUA RIVER - RPS12 - VRMP	5/20/2017	7:45 AM	NA			15.1	9.42	93.7	59.3			290.9
PI020	PISCATAQUA RIVER - RPS12 - VRMP	6/3/2017	7:30 AM	NA			13.2	10.3	98.2	166.3			81.3
PI020	PISCATAQUA RIVER - RPS12 - VRMP	6/17/2017	7:50 AM	NA			15	9.6	95.3	274.7			435.2
PI020	PISCATAQUA RIVER - RPS12 - VRMP	7/1/2017	7:43 AM	NA			17.5	9.2	96.2	217.4			
PI020	PISCATAQUA RIVER - RPS12 - VRMP	7/15/2017	7:45 AM	NA			16.5	8.98	92.1	316.1			238.2
PI020	PISCATAQUA RIVER - RPS12 - VRMP	7/29/2017	8:02 AM	NA			17	8.79	91.1	331.2			547.5
PI020	PISCATAQUA RIVER - RPS12 - VRMP	8/12/2017	7:45 AM	NA			19.1	8.31	89.8	355.9			365.4
PI020	PISCATAQUA RIVER - RPS12 - VRMP	8/26/2017	7:30 AM	NA			15.1	8.77	87.3	343.9			154.1
PI020	PISCATAQUA RIVER - RPS12 - VRMP	9/9/2017	8:10 AM	NA			14.7	9.5	93.7	266.7			248.1
PI020	PISCATAQUA RIVER - RPS12 - VRMP	9/23/2017	7:43 AM	NA			15.6	8.68	87.3	360.1			157.6
PLO10	PLEASANT RIVER - RPL06 - VRMP	5/20/2017	8:00 AM	NA			17.8		77.2	220			71.2
PLO10	PLEASANT RIVER - RPL06 - VRMP	6/3/2017	7:40 AM	NA			15.2		91.1				105
PLO10	PLEASANT RIVER - RPL06 - VRMP	6/17/2017	7:00 AM	NA			16.7		84.1	230			139.6
PLO10	PLEASANT RIVER - RPL06 - VRMP	7/1/2017	7:00 AM	NA			19.6	8.23	90.4	160			>2419.6
PLO10	PLEASANT RIVER - RPL06 - VRMP	7/15/2017	7:20 AM	NA			19.5	7.56	83	119.2			30.9
PLO10	PLEASANT RIVER - RPL06 - VRMP	7/29/2017	7:25 AM	NA			19.5	9.73	109.2	120			40.2
PLO10	PLEASANT RIVER - RPL06 - VRMP	8/12/2017	7:30 AM	NA			22.6	8.6	99.9	140			17.5
PLO10	PLEASANT RIVER - RPL06 - VRMP	8/26/2017	7:30 AM	NA			19.4	7.48	79.5	310			50.4
PLO10	PLEASANT RIVER - RPL06 - VRMP	9/9/2017	7:43 AM	NA			16	7.98	81	350			248.1
PLO10	PLEASANT RIVER - RPL06 - VRMP	9/23/2017	7:50 AM	NA			17.9	6.97	76.4	140			35

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PLO20	PLEASANT RIVER - RPL29 - VRMP	5/20/2017	7:20 AM	NA			16.2		83.5	210				67.7
PLO20	PLEASANT RIVER - RPL29 - VRMP	5/20/2017	7:20 AM	D										57.3
PLO20	PLEASANT RIVER - RPL29 - VRMP	6/3/2017	8:10 AM	NA			15.1		93.5					73.3
PLO20	PLEASANT RIVER - RPL29 - VRMP	6/17/2017	6:45 AM	NA			15.9		90.4	230				186
PLO20	PLEASANT RIVER - RPL29 - VRMP	7/1/2017	7:45 AM	NA			19.5	8.56	93.5	195				
PLO20	PLEASANT RIVER - RPL29 - VRMP	7/15/2017	7:00 AM	NA			16.7	8.88	90.8	240				146.7
PLO20	PLEASANT RIVER - RPL29 - VRMP	7/29/2017	7:00 AM	NA			18.5	8.57	89.5	250				139.6
PLO20	PLEASANT RIVER - RPL29 - VRMP	7/29/2017	7:00 AM	D										45.7
PLO20	PLEASANT RIVER - RPL29 - VRMP	8/12/2017	7:00 AM	NA			20	7.84	87.7	280				228.2
PLO20	PLEASANT RIVER - RPL29 - VRMP	8/26/2017	7:00 AM	NA			16.5	8.44	87.3	280				150
PLO20	PLEASANT RIVER - RPL29 - VRMP	9/9/2017	7:30 AM	NA			15.5	9.01	90.6	320				261.3
PLO20	PLEASANT RIVER - RPL29 - VRMP	9/23/2017	7:25 AM	NA			16.2	8.51	86	310				85.7
PLO30	PLEASANT RIVER - RPL37 - VRMP	5/20/2017	6:15 AM	NA			16.3		83.3	210				83.3
PLO30	PLEASANT RIVER - RPL37 - VRMP	6/3/2017	8:40 AM	NA			15.3		93.1					76.6
PLO30	PLEASANT RIVER - RPL37 - VRMP	6/17/2017	6:35 AM	NA			15.9		88.5	220				193.5
PLO30	PLEASANT RIVER - RPL37 - VRMP	7/1/2017	8:15 AM	NA			19.5	8.48	93.1	195				
PLO30	PLEASANT RIVER - RPL37 - VRMP	7/15/2017	6:45 AM	NA			17.7	8.68	90.6	230				179.3
PLO30	PLEASANT RIVER - RPL37 - VRMP	7/29/2017	6:30 AM	NA			18.9	8.22	88.4	230				139.6
PLO30	PLEASANT RIVER - RPL37 - VRMP	8/12/2017	6:30 AM	NA			20.1	7.99	87.9	260				
PLO30	PLEASANT RIVER - RPL37 - VRMP	8/26/2017	6:45 AM	NA			16.8	8.4	88.8	260				140.1
PLO30	PLEASANT RIVER - RPL37 - VRMP	9/9/2017	7:10 AM	NA			15.6	8.96	90.7	270				261.3
PLO30	PLEASANT RIVER - RPL37 - VRMP	9/23/2017	7:10 AM	NA			16.2	8.43	85.2	290				101.4
PL040	PLEASANT RIVER - RPL47 - VRMP	5/20/2017	5:30 AM	NA			17		77.5	155.4				99
PL040	PLEASANT RIVER - RPL47 - VRMP	6/3/2017	5:49 AM	NA										260.2
PL040	PLEASANT RIVER - RPL47 - VRMP	6/17/2017	5:40 AM	NA			16		78.8	183.7				365.4
PL040	PLEASANT RIVER - RPL47 - VRMP	7/1/2017	6:00 AM	NA			18.4	8.52	91	130.6				>2419.6
PL040	PLEASANT RIVER - RPL47 - VRMP	7/15/2017	5:55 AM	NA			17.5		99.3	180.4				435.2
PL040	PLEASANT RIVER - RPL47 - VRMP	7/29/2017	5:53 AM	NA			20	6.7	73.7	222.5				365.4
PL040	PLEASANT RIVER - RPL47 - VRMP	8/12/2017	6:10 AM	NA			20.6	6.19	76.8	272.4				547.5
PL040	PLEASANT RIVER - RPL47 - VRMP	8/26/2017	6:16 AM	NA										461.1
PL040	PLEASANT RIVER - RPL47 - VRMP	9/9/2017	6:21 AM	NA			15.8		84.1	213.2				648.8
PL040	PLEASANT RIVER - RPL47 - VRMP	9/23/2017	6:30 AM	NA			17		55.5	281.4				187.2
P080	PRESUMPCOT RIVER - R126 - VRMP	6/3/2017	9:22 AM	NA			14.1	10	98.2	64				17.1
P080	PRESUMPCOT RIVER - R126 - VRMP	6/17/2017	8:17 AM	NA			19	9.18	96.8	57				33.1
P080	PRESUMPCOT RIVER - R126 - VRMP	7/1/2017	8:15 AM	NA			22.2	7.8	96.7	7.9				69.1
P080	PRESUMPCOT RIVER - R126 - VRMP	7/15/2017	8:30 AM	NA			21.9	7.46	93	60				27.5
P080	PRESUMPCOT RIVER - R126 - VRMP	7/29/2017	8:30 AM	NA			23		95.2	59				7.4
P080	PRESUMPCOT RIVER - R126 - VRMP	7/29/2017	8:30 AM	D										8.5
P080	PRESUMPCOT RIVER - R126 - VRMP	8/12/2017	8:15 AM	NA			24	7.3	94.8					25.6
P080	PRESUMPCOT RIVER - R126 - VRMP	8/26/2017	8:15 AM	NA			20.9	7.19	90.2	66				10.9
P080	PRESUMPCOT RIVER - R126 - VRMP	9/9/2017	7:40 AM	NA			19.4	8.8	103.8	68				35
P080	PRESUMPCOT RIVER - R126 - VRMP	9/23/2017	8:15 AM	NA			19.8	9.39	111.6	62				70.3
P089	PRESUMPCOT RIVER - R129 - VRMP	5/20/2017	7:55 AM	NA			13.5	10.6	102.7	59				7.4
P089	PRESUMPCOT RIVER - R129 - VRMP	6/3/2017	9:06 AM	NA			14.3	9.36	90.2	65				45.7

Presumpscot River & Tributaries - Presumpscot River Watch: Approved Sites														
P089	PRESUMPCOT RIVER - R129 - VRMP	6/17/2017	8:42 AM	NA			19	8.66	93.4	59				25.6
P089	PRESUMPCOT RIVER - R129 - VRMP	7/1/2017	8:45 AM	NA			22.4	7.95	97.3	7.8				
P089	PRESUMPCOT RIVER - R129 - VRMP	7/15/2017	8:10 AM	NA			21.2	6.9	86.7	62				33.6
P089	PRESUMPCOT RIVER - R129 - VRMP	7/29/2017	7:55 AM	NA			21.7		91.6	61				14.5
P089	PRESUMPCOT RIVER - R129 - VRMP	8/12/2017	7:40 AM	NA			24	7.3	91.3					13.5
P089	PRESUMPCOT RIVER - R129 - VRMP	8/26/2017	7:55 AM	NA			20.6	7.26	96.4	64				26.9
P089	PRESUMPCOT RIVER - R129 - VRMP	9/9/2017	7:10 AM	NA			19.1	8.06	95.5	63.8				21.6
P089	PRESUMPCOT RIVER - R129 - VRMP	9/23/2017	7:40 AM	NA			19.7	8.99	106.6	60				26.5
P110	PRESUMPCOT RIVER - R133 - VRMP	5/20/2017	7:45 AM	NA			13.3	9.75	93.4	58.7				7.4
P110	PRESUMPCOT RIVER - R133 - VRMP	6/3/2017	7:23 AM	NA			13.7	9.6	92.1	66.8				20.3
P110	PRESUMPCOT RIVER - R133 - VRMP	6/17/2017	7:30 AM	NA			18.9	8.06	88.2	57.3				41.9
P110	PRESUMPCOT RIVER - R133 - VRMP	7/1/2017	7:16 AM	NA			21.9	8.3	94.8	76.6				63.1
P110	PRESUMPCOT RIVER - R133 - VRMP	7/15/2017	7:38 AM	NA			22.2	7.56	86.1	58.1				21.8
P110	PRESUMPCOT RIVER - R133 - VRMP	7/29/2017	7:25 AM	NA			22.6	8.13	95	57				9.8
P110	PRESUMPCOT RIVER - R133 - VRMP	8/12/2017	7:40 AM	NA			23.9	7.76	91.6	57.9				17.1
P110	PRESUMPCOT RIVER - R133 - VRMP	8/26/2017	7:11 AM	NA			22.6	8.04	93.2	60.3				25.6
P110	PRESUMPCOT RIVER - R133 - VRMP	9/9/2017	7:32 AM	NA			19.6	8.33	90.7	62.3				17.3
P110	PRESUMPCOT RIVER - R133 - VRMP	9/23/2017	7:30 AM	NA			19.8	8.04	86.8	57.5				17.1
P135	PRESUMPCOT RIVER - R157 - VRMP	5/20/2017	7:10 AM	NA			13.3	10.76	102.5	54				13.5
P135	PRESUMPCOT RIVER - R157 - VRMP	5/20/2017	8:05 AM	NA			13.3	9.77	93	57.4				12.1
P135	PRESUMPCOT RIVER - R157 - VRMP	6/3/2017	7:22 AM	NA			13.8	10.43	100.6	57				17.5
P135	PRESUMPCOT RIVER - R157 - VRMP	6/3/2017	7:35 AM	NA			13.8	9.53	92	64				19.9
P135	PRESUMPCOT RIVER - R157 - VRMP	6/17/2017	7:46 AM	NA			18.9	9.36	100.3	56				103.9
P135	PRESUMPCOT RIVER - R157 - VRMP	7/1/2017	7:25 AM	NA			21.8	7.98	90.4	75				517.2
P135	PRESUMPCOT RIVER - R157 - VRMP	7/15/2017	7:25 AM	NA			22.2	7.63	88	56				17.1
P135	PRESUMPCOT RIVER - R157 - VRMP	7/29/2017	8:00 AM	NA			22.7	8.43	97.6	55				33.1
P135	PRESUMPCOT RIVER - R157 - VRMP	7/29/2017	8:00 AM	D			22.7	8.39	97.4	55				30.1
P135	PRESUMPCOT RIVER - R157 - VRMP	8/12/2017	7:20 AM	NA			23.6	7.59	89.9	54				15.5
P135	PRESUMPCOT RIVER - R157 - VRMP	8/26/2017	7:45 AM	NA			22.7	7.42	86.1	57				8.6
P135	PRESUMPCOT RIVER - R157 - VRMP	9/9/2017	7:30 AM	NA			19.7	9.2	100.2	64				16.1
P135	PRESUMPCOT RIVER - R157 - VRMP	9/23/2017	7:37 AM	NA			19.3	8.05	88.8					5.2
P150	PRESUMPCOT RIVER - R166 - VRMP	5/20/2017	6:51 AM	NA			13.1	11.26	107.3	48				7.9
P150	PRESUMPCOT RIVER - R166 - VRMP	6/3/2017	7:02 AM	NA			13.8	10.89	105.8	47				12.2
P150	PRESUMPCOT RIVER - R166 - VRMP	6/17/2017	7:26 AM	NA			19.1	9.73	105.3	49				13.4
P150	PRESUMPCOT RIVER - R166 - VRMP	7/1/2017	7:00 AM	NA			22.1	8.01	91.8	53				14.5
P150	PRESUMPCOT RIVER - R166 - VRMP	7/15/2017	7:08 AM	NA			22.7	7.9	91.6	53				39.3
P150	PRESUMPCOT RIVER - R166 - VRMP	7/29/2017	7:42 AM	NA			23.1	8.76	102.4	50				6.3
P150	PRESUMPCOT RIVER - R166 - VRMP	8/12/2017	7:00 AM	NA			24	7.68	91.4	53				4.1
P150	PRESUMPCOT RIVER - R166 - VRMP	8/26/2017	7:35 AM	NA			23.1	7.52	87.7	53				4.1
P150	PRESUMPCOT RIVER - R166 - VRMP	9/9/2017	7:15 AM	NA			19.7	9.35	102.2	51				5.2
P150	PRESUMPCOT RIVER - R166 - VRMP	9/23/2017	7:20 AM	NA			19.4	8.37	92.6	49				5.2
P170	PRESUMPCOT RIVER - R202 - VRMP	5/20/2017	7:45 AM	NA			12.8	11.33	107					6.3
P170	PRESUMPCOT RIVER - R202 - VRMP	6/3/2017	8:26 AM	NA			13.9	9.98	96.8	33.6				3
P170	PRESUMPCOT RIVER - R202 - VRMP	6/17/2017	8:20 AM	NA			18.1	9.14	96.8	37.3				8.8

Presumpscot River & Tributaries - Presumpscot River Watch: Approved Sites														
P170	PRESUMPCOT RIVER - R202 - VRMP	7/1/2017	8:20 AM	NA			22.1	8.26	94.5	40.4				23.8
P170	PRESUMPCOT RIVER - R202 - VRMP	7/15/2017	7:40 AM	NA			22.1	8	91.5	52				41.6
P170	PRESUMPCOT RIVER - R202 - VRMP	7/29/2017	7:30 AM	NA			23.2	7.95	93.2	52				20.1
P170	PRESUMPCOT RIVER - R202 - VRMP	8/12/2017	7:00 AM	NA			24.1	7.26	86.1	42.2				46.5
P170	PRESUMPCOT RIVER - R202 - VRMP	8/26/2017	7:07 AM	NA										13.4
P170	PRESUMPCOT RIVER - R202 - VRMP	9/9/2017	7:31 AM	NA			19.3		83.1	37.1				12.1
P170	PRESUMPCOT RIVER - R202 - VRMP	9/23/2017	7:40 AM	NA			19.1		84.6	37.2				13.5
P200	PRESUMPCOT RIVER - R225 - VRMP	5/20/2017	5:05 AM	NA			12		98	45				7.4
P200	PRESUMPCOT RIVER - R225 - VRMP	6/3/2017	5:30 AM	NA										2
P200	PRESUMPCOT RIVER - R225 - VRMP	6/17/2017	5:21 AM	NA			18		93.4	22.5				130.9
P200	PRESUMPCOT RIVER - R225 - VRMP	7/1/2017	5:42 AM	NA			21.8	7.89	91	43				43.9
P200	PRESUMPCOT RIVER - R225 - VRMP	7/15/2017	5:40 AM	NA			21.8		88	40.6				36.9
P200	PRESUMPCOT RIVER - R225 - VRMP	7/29/2017	5:32 AM	NA			22.5	7.2	84.2	42.5				47.1
P200	PRESUMPCOT RIVER - R225 - VRMP	7/29/2017	5:32 AM	D			22.3	7.2	84.2	42.5				47.1
P200	PRESUMPCOT RIVER - R225 - VRMP	8/12/2017	5:51 AM	NA			23.8	7.46	89.4	42.8				13.1
P200	PRESUMPCOT RIVER - R225 - VRMP	8/26/2017	5:55 AM	NA										12.1
P200	PRESUMPCOT RIVER - R225 - VRMP	9/9/2017	6:04 AM	NA			19.5		92.5	92.7				4.1
P200	PRESUMPCOT RIVER - R225 - VRMP	9/23/2017	6:05 AM	NA			19.2		93	37.8				6.3
P020	PRESUMPCOT RIVER - R24 - VRMP	5/20/2017	8:00 AM	NA			14.2	10.2	99.4	67.3				16
P020	PRESUMPCOT RIVER - R24 - VRMP	6/3/2017	7:50 AM	NA			14.4	10.37	101.5	70.5				54.7
P020	PRESUMPCOT RIVER - R24 - VRMP	6/17/2017	8:00 AM	NA			19.1	8.86	96.8	66.2				135.4
P020	PRESUMPCOT RIVER - R24 - VRMP	7/1/2017	8:02 AM	NA			21.7	8.5	96.6	76.7				73.3
P020	PRESUMPCOT RIVER - R24 - VRMP	7/15/2017	8:00 AM	NA			22.5	8.2	94.6	62.3				48.7
P020	PRESUMPCOT RIVER - R24 - VRMP	7/29/2017	8:12 AM	NA			23.1	8	93.4	57.8				36.8
P020	PRESUMPCOT RIVER - R24 - VRMP	8/12/2017	8:00 AM	NA			24	7.93	94.2	61.6				47.2
P020	PRESUMPCOT RIVER - R24 - VRMP	8/26/2017	7:45 AM	NA			22.6	7.47	86.4	72				101.2
P020	PRESUMPCOT RIVER - R24 - VRMP	9/9/2017	8:22 AM	NA			19.5	8.41	91.6	83.1				78.9
P020	PRESUMPCOT RIVER - R24 - VRMP	9/23/2017	7:57 AM	NA			20.6	7.87	87.7	74				41.6
P030	PRESUMPCOT RIVER - R47 - VRMP	5/20/2017	8:14 AM	NA			14.2	10.34	100.4	68.6				26.2
P030	PRESUMPCOT RIVER - R47 - VRMP	6/3/2017	8:29 AM	NA			14.5	11.72	115	72.6				55.4
P030	PRESUMPCOT RIVER - R47 - VRMP	6/17/2017	6:31 AM	NA			19.1	9	97	72				75.4
P030	PRESUMPCOT RIVER - R47 - VRMP	7/1/2017	7:55 AM	NA			21.8	8.51	96.1	80.4				56.5
P030	PRESUMPCOT RIVER - R47 - VRMP	7/15/2017	8:00 AM	NA			22.6	8.2	94.8	64.9				18.3
P030	PRESUMPCOT RIVER - R47 - VRMP	7/29/2017	8:11 AM	NA			23.3	7.37	86.4					34.5
P030	PRESUMPCOT RIVER - R47 - VRMP	8/12/2017	7:42 AM	NA			23.3	7.17	86.1	63.4				23.1
P030	PRESUMPCOT RIVER - R47 - VRMP	8/12/2017	7:42 AM	D										24
P030	PRESUMPCOT RIVER - R47 - VRMP	8/26/2017	7:50 AM	NA			22.5	7.33	85	71.8				95.9
P030	PRESUMPCOT RIVER - R47 - VRMP	9/9/2017	7:50 AM	NA			19.5	8.28	89.9	89.7				46.4
P030	PRESUMPCOT RIVER - R47 - VRMP	9/23/2017	7:50 AM	NA			20.6	7.77	86.3	77.4				31.3
R050	PRESUMPCOT RIVER - R69 - VRMP	6/3/2017	7:20 AM	NA			14.3	9.55	93.4	60.4				53
R050	PRESUMPCOT RIVER - R69 - VRMP	6/17/2017	7:15 AM	NA			19	8.87	96	56.3				72.7
R050	PRESUMPCOT RIVER - R69 - VRMP	7/15/2017	7:05 AM	NA										137.4
R050	PRESUMPCOT RIVER - R69 - VRMP	7/29/2017	8:00 AM	NA										16.1
R050	PRESUMPCOT RIVER - R69 - VRMP	8/12/2017	7:05 AM	NA			24	8.63	102.7	50.1				133.4

Presumpscot River & Tributaries - Presumpscot River Watch: Approved Sites													
R050	PRESUMPCOT RIVER - R69 - VRMP	8/26/2017	7:40 AM	NA			22.6	7.74	89.4	56.2			90.7
R050	PRESUMPCOT RIVER - R69 - VRMP	9/9/2017	7:51 AM	NA			19.2	8.66	94	71			130.9
R050	PRESUMPCOT RIVER - R69 - VRMP	9/23/2017	7:45 AM	NA			20.3	8.22	90.3	55.4			61.3
R065	PRESUMPCOT RIVER - R81 - VRMP	6/17/2017	7:00 AM	NA			18.9	9.41	101.3	61.5			101.4
R065	PRESUMPCOT RIVER - R81 - VRMP	7/1/2017	6:57 AM	NA			21.6	8.35	94.4	80.8			60.5
R065	PRESUMPCOT RIVER - R81 - VRMP	7/15/2017	7:15 AM	NA			22.2	7.68	88.9	62.8			25.9
R065	PRESUMPCOT RIVER - R81 - VRMP	7/29/2017	7:06 AM	NA			23.2	8.29	98.2	59.4			18.1
R065	PRESUMPCOT RIVER - R81 - VRMP	8/12/2017	7:14 AM	NA			23.8	8.21	97.4	62.9			17.5
R065	PRESUMPCOT RIVER - R81 - VRMP	8/12/2017	7:14 AM	D									31.3
R065	PRESUMPCOT RIVER - R81 - VRMP	8/26/2017	6:45 AM	NA			22.6	7.96	93.3	69.9			17.5
R065	PRESUMPCOT RIVER - R81 - VRMP	9/9/2017	7:07 AM	NA			19.4	8.6	93.7	82.4			83.9
R065	PRESUMPCOT RIVER - R81 - VRMP	9/23/2017	7:00 AM	NA			20.2	8.18	91.3	59.1			25.3
P060	PRESUMPCOT RIVER-R76-VRMP	6/3/2017	8:00 AM	NA			14.3	9.7	94.8	60.6			47.9
P060	PRESUMPCOT RIVER-R76-VRMP	6/17/2017	7:50 AM	NA			19	9.03	97.4	53			77.6
P060	PRESUMPCOT RIVER-R76-VRMP	7/15/2017	7:35 AM	NA									133.4
P060	PRESUMPCOT RIVER-R76-VRMP	7/29/2017	8:15 AM	NA									16
P060	PRESUMPCOT RIVER-R76-VRMP	8/12/2017	7:30 AM	NA			24	8.84	105	51			57.3
P060	PRESUMPCOT RIVER-R76-VRMP	8/26/2017	8:08 AM	NA			22.6	7.85	91.2	56.8			19.5
P060	PRESUMPCOT RIVER-R76-VRMP	9/9/2017	8:03 AM	NA			19.4	9.06	98.5	63.4			122.3
P060	PRESUMPCOT RIVER-R76-VRMP	9/23/2017	8:12 AM	NA			20.3	8.57	95	51.5			
TA010	TANNERY BROOK - RLTTN06 - VRMP	5/20/2017	7:35 AM	NA			14.5	8.56	85	385			124.6
TA010	TANNERY BROOK - RLTTN06 - VRMP	6/3/2017	8:00 AM	NA			12.4		90.8	301			95.9
TA010	TANNERY BROOK - RLTTN06 - VRMP	6/17/2017	7:48 AM	NA			14.3		86	380			344.8
TA010	TANNERY BROOK - RLTTN06 - VRMP	7/1/2017	8:00 AM	NA			17.6		92.3	340			193.5
TA010	TANNERY BROOK - RLTTN06 - VRMP	7/15/2017	7:45 AM	NA			15.7		79.2	502			238.2
TA010	TANNERY BROOK - RLTTN06 - VRMP	7/29/2017	7:45 AM	NA			16.6		78.5	538			435.2
TA010	TANNERY BROOK - RLTTN06 - VRMP	8/12/2017	8:40 AM	NA			12.8		80				104.3
TA010	TANNERY BROOK - RLTTN06 - VRMP	8/26/2017	7:30 AM	NA			14.4		78.5	475			60.9
TA010	TANNERY BROOK - RLTTN06 - VRMP	9/9/2017	7:50 AM	NA			14.1		72.2	306			90.7
TA010	TANNERY BROOK - RLTTN06 - VRMP	9/23/2017	7:40 AM	NA			14.5		79.5	515			127.4
TA040	TANNERY BROOK-RLTTN21-VRMP	5/20/2017	7:21 AM	NA			11.2	11.25	102.2	271			93.3
TA040	TANNERY BROOK-RLTTN21-VRMP	6/3/2017	7:43 AM	NA			10.5	10.38	92.8	192.7			33.6
TA040	TANNERY BROOK-RLTTN21-VRMP	6/17/2017	7:51 AM	NA			13	10.08	95.5	200.3			231
TA040	TANNERY BROOK-RLTTN21-VRMP	7/1/2017	7:44 AM	NA			16.3	10.48	106.6	138.7			
TA040	TANNERY BROOK-RLTTN21-VRMP	7/15/2017	7:40 AM	NA			14.6	9.36	91.9	384			110.6
TA040	TANNERY BROOK-RLTTN21-VRMP	7/29/2017	7:43 AM	NA			15.1	10.08	100.3	409			166.4
TA040	TANNERY BROOK-RLTTN21-VRMP	8/12/2017	8:02 AM	NA			17	8.33	85.8	260.5			980.4
TA040	TANNERY BROOK-RLTTN21-VRMP	8/26/2017	7:18 AM	NA			15.1	8.88	84.7	455			325.5
TA040	TANNERY BROOK-RLTTN21-VRMP	9/9/2017	9:30 AM	NA			13.9	9.71	93.7	360.3			63.7
TA040	TANNERY BROOK-RLTTN21-VRMP	9/23/2017	9:38 AM	NA			14.3	8.93	87.1				49.6