

## Section 5-7 Presumpscot River & Tributaries (Presumpscot River Watch)

### Presumpscot River

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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 main stem 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.

According to Maine's statutory Water Classification System, the Presumpscot River Basin has designations listed below.<sup>1</sup>

- Presumpscot River, main stem.
  - 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.

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<sup>1</sup> <http://www.mainelegislature.org/legis/statutes/38/title38sec467.html>

## Monitoring History

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- 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.

## Methods and Sampling Sites

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The volunteers monitor the Presumpscot River annually. There are twenty-five monitoring sites in the watershed. Although PRW's goal is to monitor all sites each year, they are not always able to do so. In 2013 they sampled 22 sites, all but one are VMRP approved sites. (Table 5-7-1, Figures 5-7-1 through 5-7-4). All stations are above the head-of-tide at Presumpscot Falls.

Monitoring was conducted between 5:13 and 8:30AM, every two weeks from May 18th through August 24th. At each of the sites, the monitors took measurements of dissolved oxygen and temperature using either a YSI 550A or YSI 85 meter. Conductivity was measured with either a YSI 85 meter or EC Testr 11/11+ pen. Grab samples were collected for *E. coli* bacteria and transported to the PRW office for analysis using IDEXX Quanti-Tray 2000 method. Air temperature, weather conditions, and water appearance were recorded.

**Table 5-7-1.** Presumpscot River Watch sampling sites, ordered from upstream down for the main stem 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
<b>Mainstem (ordered from upstream to downstream)</b>			
Presumpscot River-R225-VRMP	P200	Route 35 Crossing	A
Presumpscot River-R202-VRMP	P170	Presumpscot River	A
Presumpscot River-R195-VRMP	P160	Presumpscot River	A
Presumpscot River-R166-VRMP	P150	Presumpscot River	A
Presumpscot River-R163-VRMP	P140	Presumpscot River	B
Presumpscot River-R161-VRMP	P145	Presumpscot River	B
Presumpscot River-R157-VRMP	P135	Gambo Park	B
Presumpscot River-R133-VRMP	P110	Presumpscot River	B
Presumpscot River-R129-PRW	P089	Presumpscot River	B
Presumpscot River-R126-PRW	P080	Presumpscot River	B
Presumpscot River-R47-VRMP	P030	Presumpscot River	C
Presumpscot River-R24-VRMP	P020	Blackstrap River	C
Presumpscot River-R07-PRW	P015	Presumpscot River	C
<b>Pleasant River &amp; Tributaries</b>			
Pleasant River-RPL47-VRMP	PL040	Route 302	B
Pleasant River-RPL37-VRMP	PL030	Pleasant River	B
Pleasant River-RPL29-VRMP	PL020	Pope Road	B
Pleasant River-RPL06-VRMP	PL010	Lovett Bridge	B
Ditch Brook-RPL00-VRMP	DB010	Ditch Brook	B
Baker Brook-RPLBK17-VRMP	BB010	Baker Brook	B
<b>Upper Presumpscot Tributaries</b>			
Little River-RLT89-VRMP	L050	Little River	B
Little River-RLT15-VRMP	L020	Little River	B
Little River-RLT08-PRW	L010	Little River	B
Douglas Brook-RLTNBDG20-VRMP	DG010	Douglas Brook	B
Tannery Brook-RLTTN06-VRMP	TA010	Queen Street	B

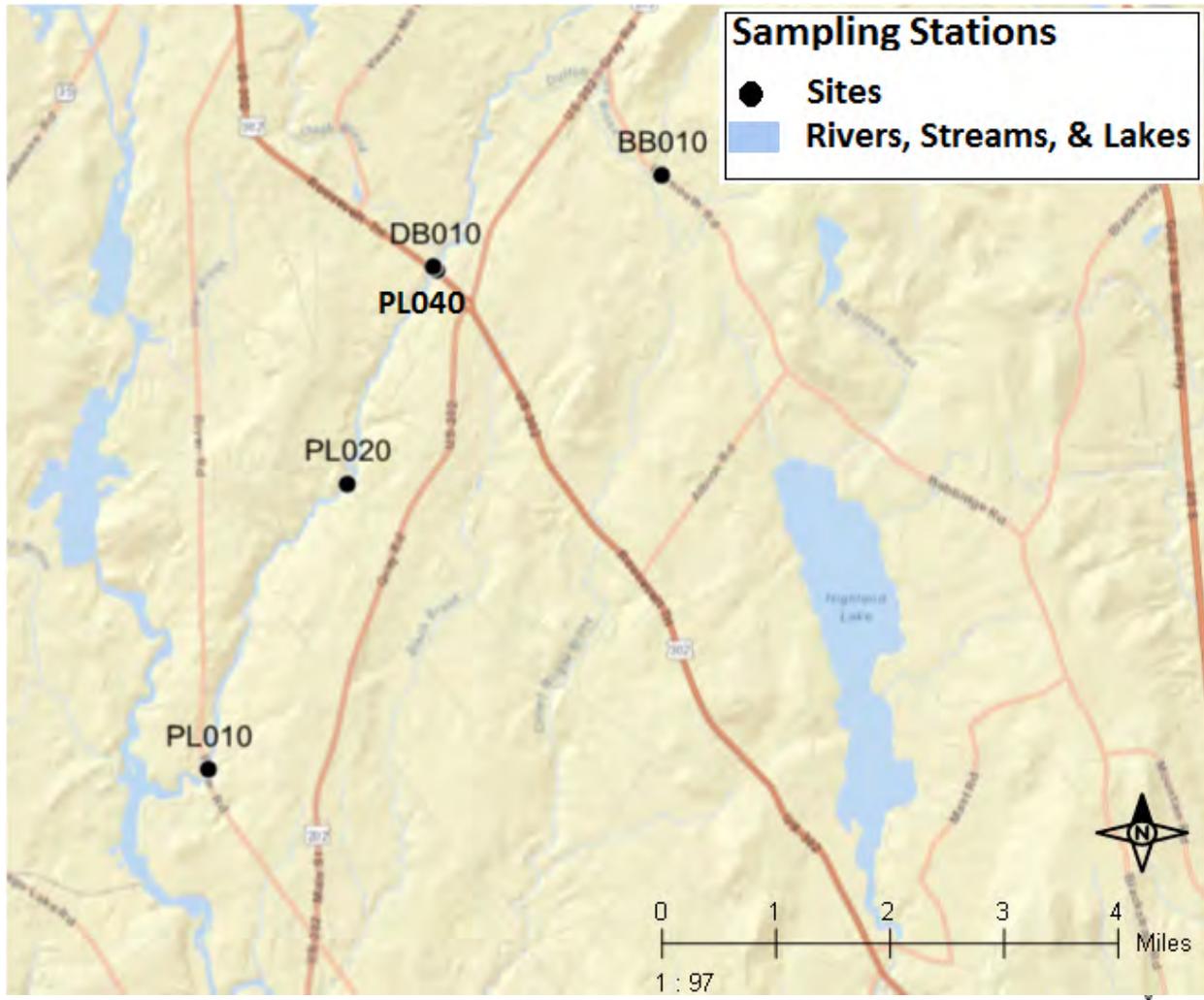
Black Brook-RBK05-VRMP	BL010	Black Brook	B
Otter Brook-ROT06-VRMP	OB010	Otter Brook	B
Nason Brook-RNS11-VRMP	N010	Nason Brook	B
Colley Wright Brook-RCW28-VRMP	CW020	Colley Wright Brook	B
Colley Wright Brook-RCW10-VRMP	CW010	Colley Wright Brook	B
Inkhorn Brook-RIK05-VRMP	IN010	Inkhorn Brook	B
<b>Lower Presumpscot River Tributaries</b>			
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, Main Stem Presumpscot River Watch



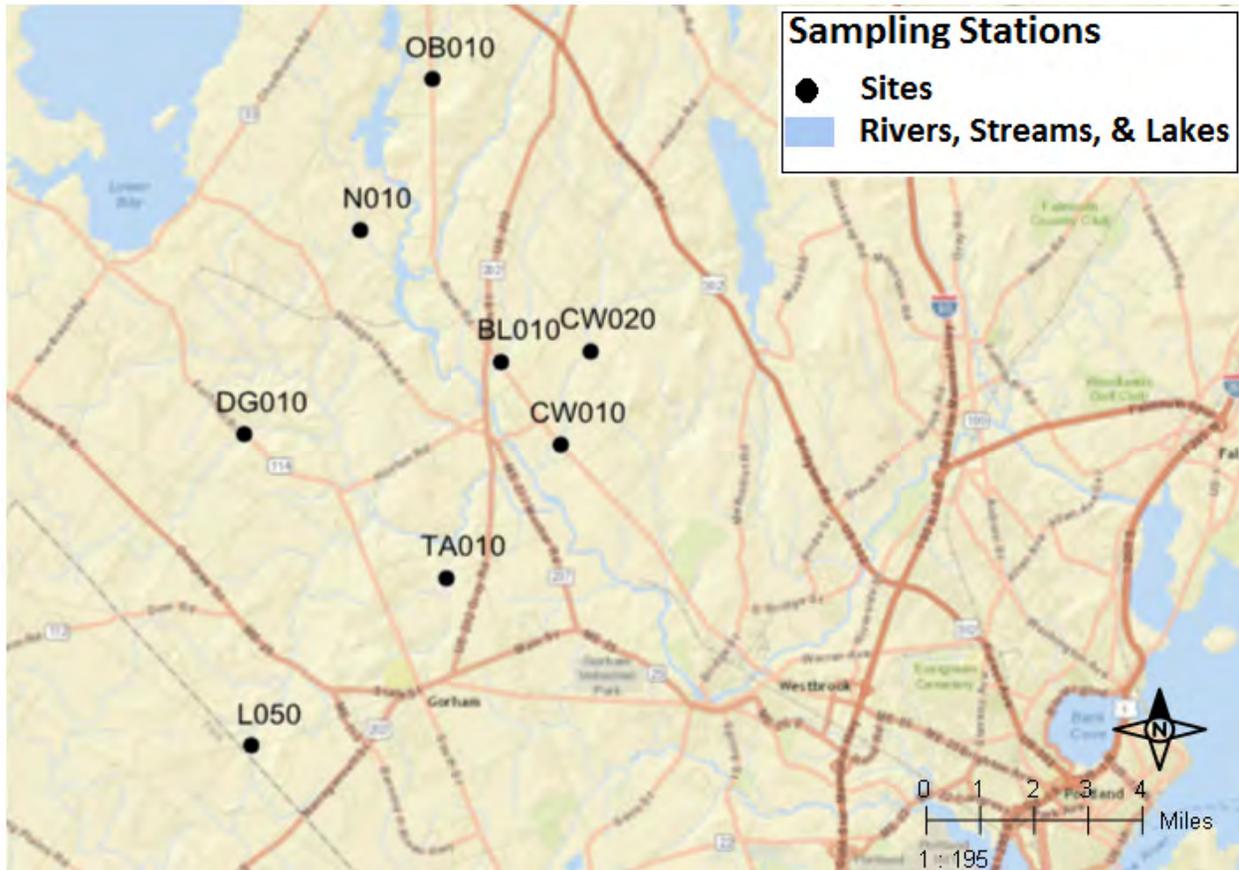
**Figure 5-7-1:** Map of Presumpscot River Watch main stem sampling sites.

## Presumpscot River Sampling Sites, Pleasant River Presumpscot River Watch



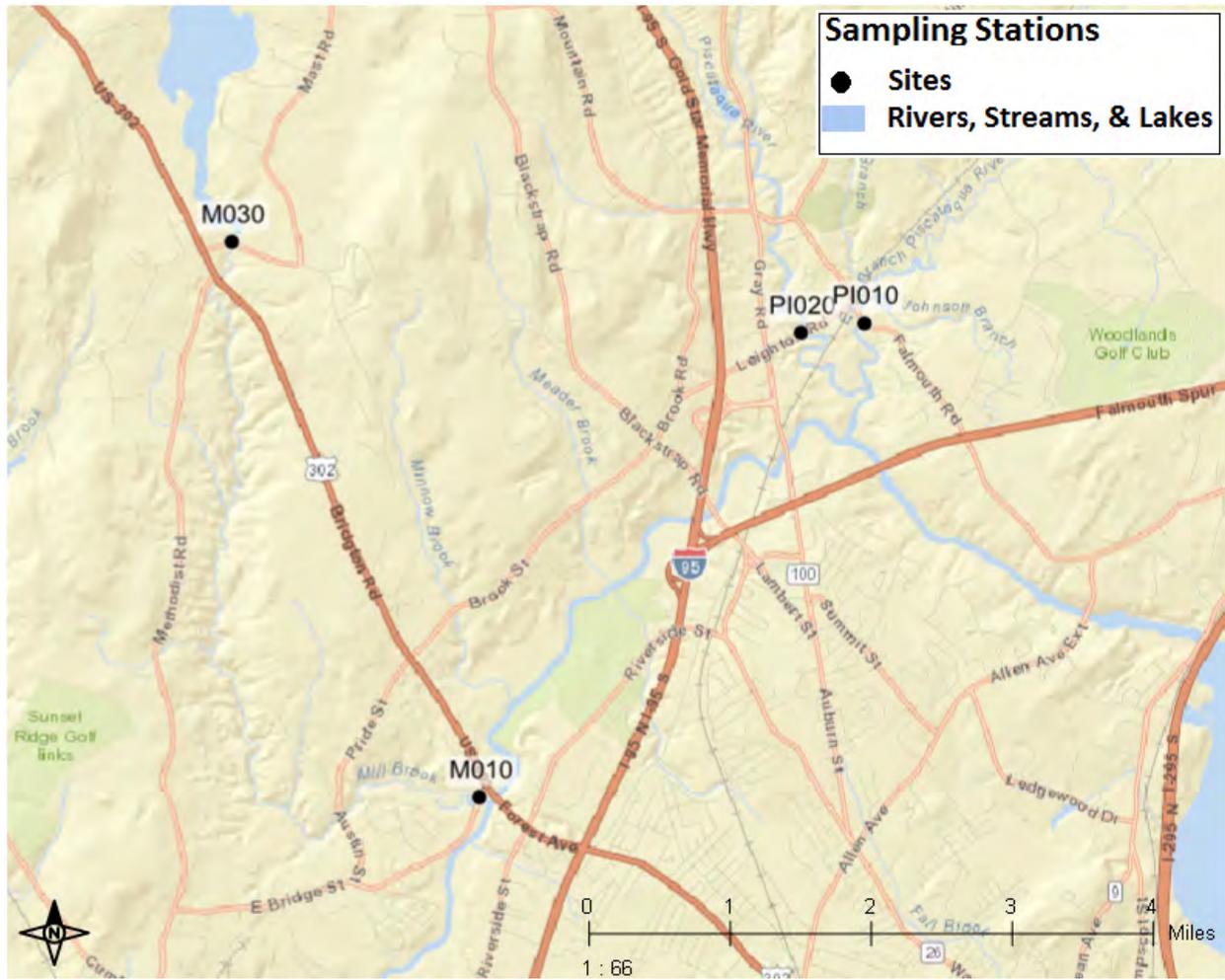
**Figure 5-7-2:** Map of Presumpscot River Watch sampling sites at Pleasant River and tributaries.

## Presumpscot River Sampling Sites, Upper Presumpscot Tributaries Presumpscot River Watch



**Figure 5-7-3:** Map of Presumpscot River Watch sampling sites, Upper Presumpscot tributaries.

# Presumpscot River Sampling Sites, Lower Presumpscot Tributaries Presumpscot River Watch



**Figure 5-7-4:** 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 main stem (site code P200 – P020), and the tributaries collectively. Refer to Appendices A-1 and A-2 in discussion of individual site data and trends.

### Dissolved Oxygen

Dissolved oxygen levels are generally lowest early in the morning and then increase during the day, peaking 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, this will affect the dissolved oxygen.

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. The Class SB standard is 85% saturation (no specific concentration standard).

#### 2014 Results:

Six main stem sampling sites were monitored. All of these sites met criterion for both dissolved oxygen (DO) concentration and percent saturation. Overall DO was excellent at the main stem sites in 2014. For the Pleasant River and tributaries to the Pleasant River, there was 1 measurement at site PL040 which did not meet the Class B criterion of 7 mg/l and the percent saturation criterion of 75% saturation. Overall DO at these sites was excellent. For the upper Presumpscot tributaries, there were a few excursions. At site DG010, 1 measurement did not meet Class B criterion for both concentration and percent saturation. Site OB010 had 1 low measurement for DO concentration and 2 for percent saturation. Overall DO was excellent at these tributary sites with the exception of site OB010. All of the lower Presumpscot tributaries met DO criterion. Flows in 2014 were above normal which likely contributed to overall excellent DO.

**Table 5-7-2:** A summary of minimum, maximum, and average dissolved oxygen concentration values (mg/l) at Presumpscot River Watch monitoring sites.

Mainstem Sites (Ordered from upstream to downstream)							
Site	Class	# of Observations	Average	Minimum	Maximum	Criterion	# Exceeding
P200	A	5	8.9	7.5	10.7	7	0
P160	A	6	8.4	7.5	9.5	7	0
P150	A	6	8.3	7.4	9.4	7	0
P135	B	7	8.2	7.0	9.8	7	0
P030	C	8	8.7	7.6	10.0	5	0

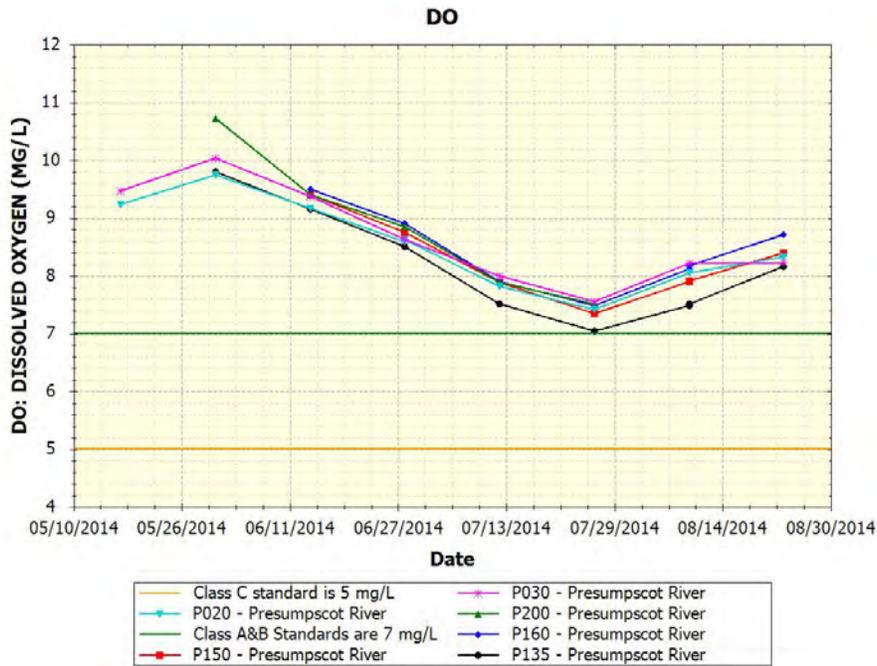
P020	C	8	8.5	7.4	9.7	5	0
<b>Pleasant River and Tributaries</b>							
PLO40	B	8	7.8	6.9	8.8	7	1
PL020	B	6	8.7	7.9	9.7	7	0
PL010	B	2	7.9	7.6	8.1	7	0
DB010	B	8	8.9	8.3	9.5	7	0
BB010	B	7	8.4	8.1	8.8	7	0
<b>Upper Presumpscot Tributaries</b>							
L010	B	8	8.8	7.7	9.8	7	0
DG010	B	8	8.1	6.9	9.6	7	1
TA010	B	8	9.0	7.9	9.9	7	0
BL010	B	8	9.5	8.8	10.4	7	0
OB010	B	8	8.1	5.3	9.0	7	1
N010	B	8	9.0	8.0	10.1	7	0
CW020	B	8	8.9	7.6	9.9	7	0
CW010	B	8	8.6	7.3	9.8	7	0
<b>Lower Presumpscot River Tributaries</b>							
PI020	B	7	10.4	9.1	12.0	7	0
PI010	B	7	8.6	7.3	9.6	7	0
M030	B	7	8.5	7.4	10.0	7	0
M010	B	8	8.4	7.8	9.4	7	0

**Table 5-7-3:** A summary of minimum, maximum, and average dissolved oxygen saturation values (%) at Presumpscot River Watch monitoring sites.

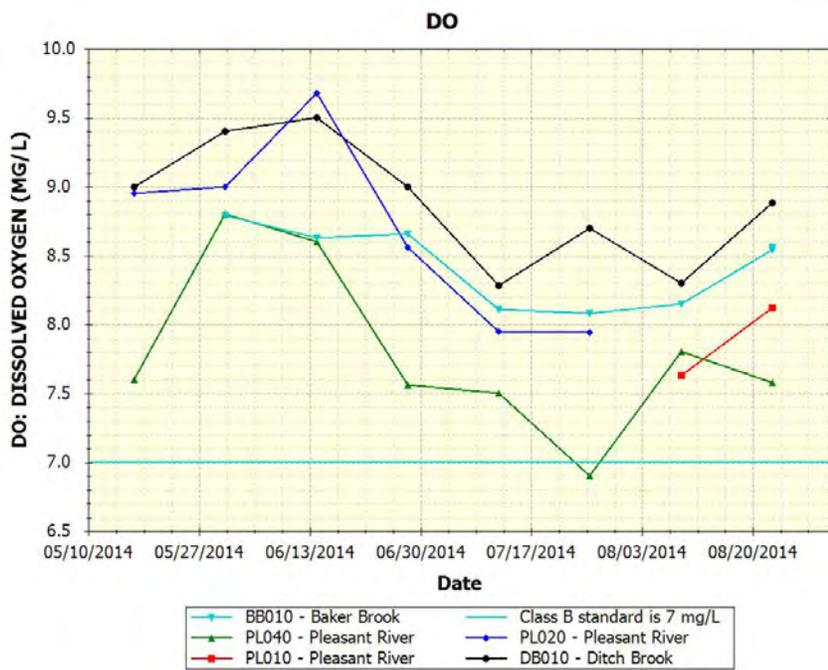
<b>Mainstem Sites (Ordered from upstream to downstream)</b>							
Site	Class	# of Observations	Average	Minimum	Maximum	Criterion	# Exceeding
P200	A	5	94.5	89.2	102.2	75	0
P160	A	6	95.9	91.2	98.7	75	0
P150	A	6	94.7	89.5	98.6	75	0

P135	B	7	91.1	85.4	95.4	75	0
P030	C	8	95.4	91.5	98.4	60	0
P020	C	8	93.6	88.4	96.1	60	0
<b>Pleasant River and Tributaries</b>							
PL040	B	8	80.1	74.4	88.6	75	1
PL020	B	6	90.7	88.2	95.0	75	0
PL010	B	2	87.5	86.6	88.4	75	0
DB010	B	8	95.9	90.8	99.7	75	0
BB010	B	7	85.9	84.6	89.2	75	0
<b>Upper Presumpscot Tributaries</b>							
L010	B	8	89.9	83.3	93.8	75	0
DG010	B	8	82.2	73.9	90.1	75	1
TA010	B	8	89.8	83.7	96.4	75	0
BL010	B	8	93.8	88.8	98.4	75	0
OB010	B	8	78.0	51.4	85.9	75	2
N010	B	8	88.7	84.0	93.2	75	0
CW020	B	8	89.1	80.6	93.8	75	0
CW010	B	8	86.5	79.0	94.2	75	0
<b>Lower Presumpscot River Tributaries<sup>5</sup></b>							
PI020	B	8	104.6	93.1	127.7	75	0
PI010	B	8	88.1	79.6	99.1	75	0
MO30	B	8	95.5	82.0	119.4	75	0
MO10	B	8	86.2	81.3	89.8	75	0

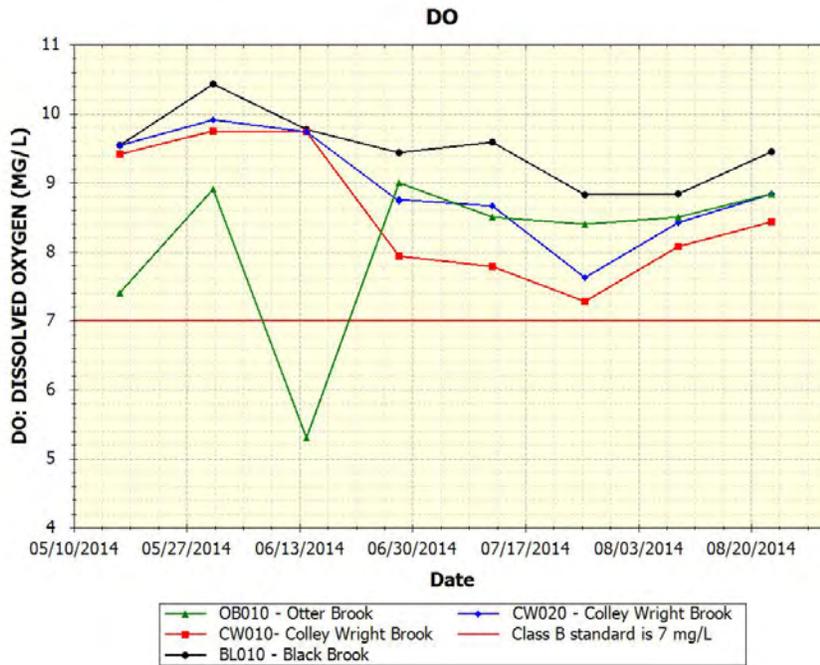
**Figure 5-7-5:** Graph of dissolved oxygen concentrations at sites on the mainstem of the Presumpscot River



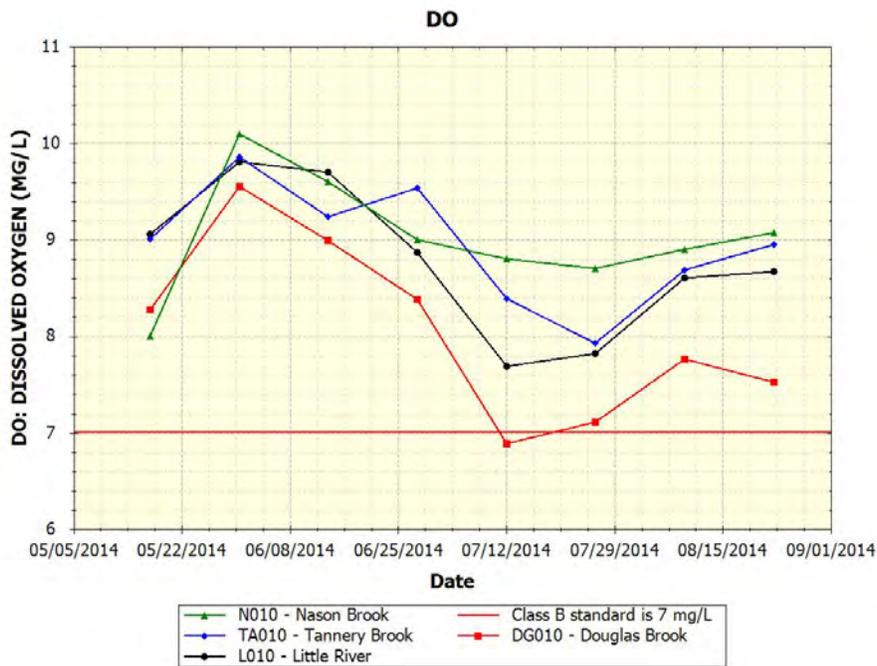
**Figure 5-7-6:** Graph of dissolved oxygen concentrations at sites on the Pleasant River and tributaries



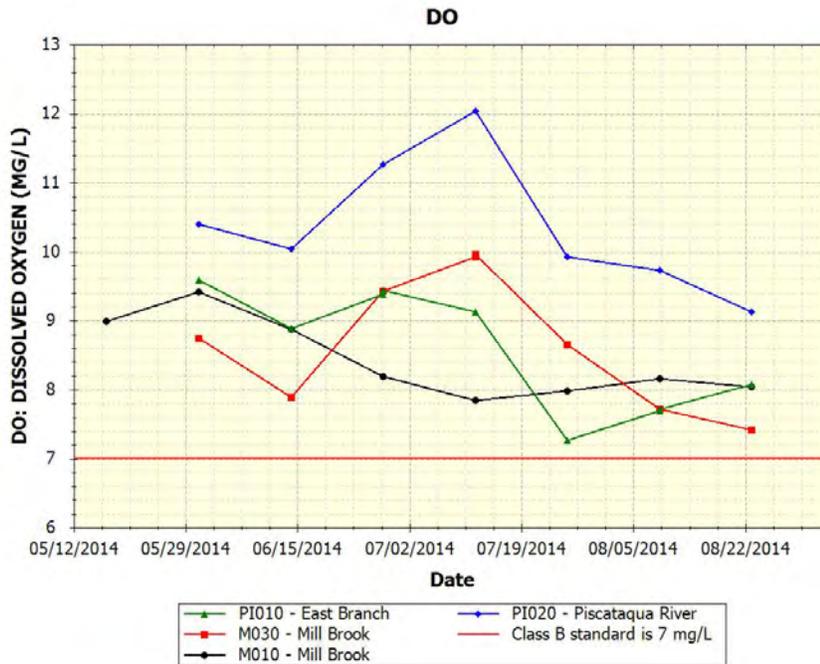
**Figure 5-7-7:** Graph of dissolved oxygen concentrations at sites on the upper Presumpscot tributaries-I.



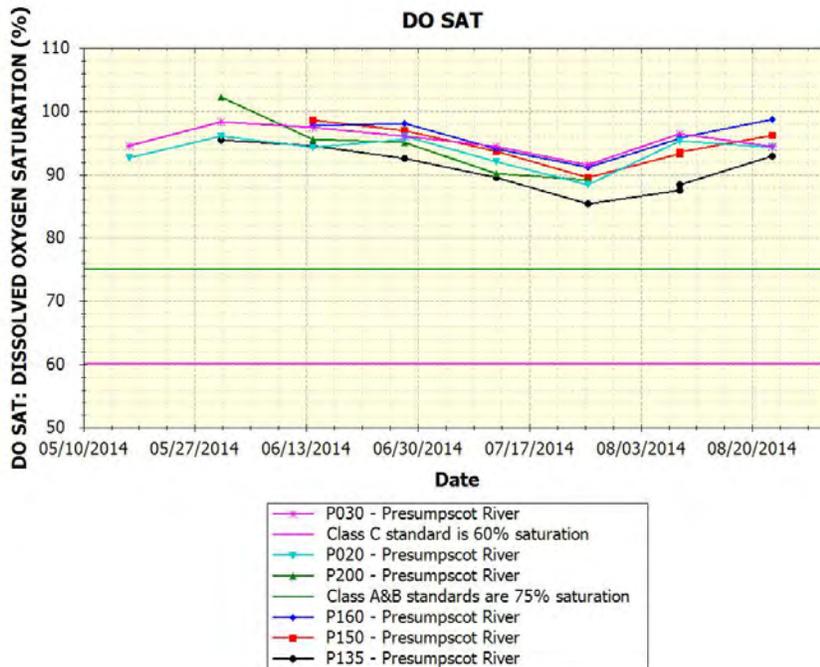
**Figure 5-7- 8:** Graph of dissolved oxygen concentrations at sites on the upper Presumpscot tributaries-II.



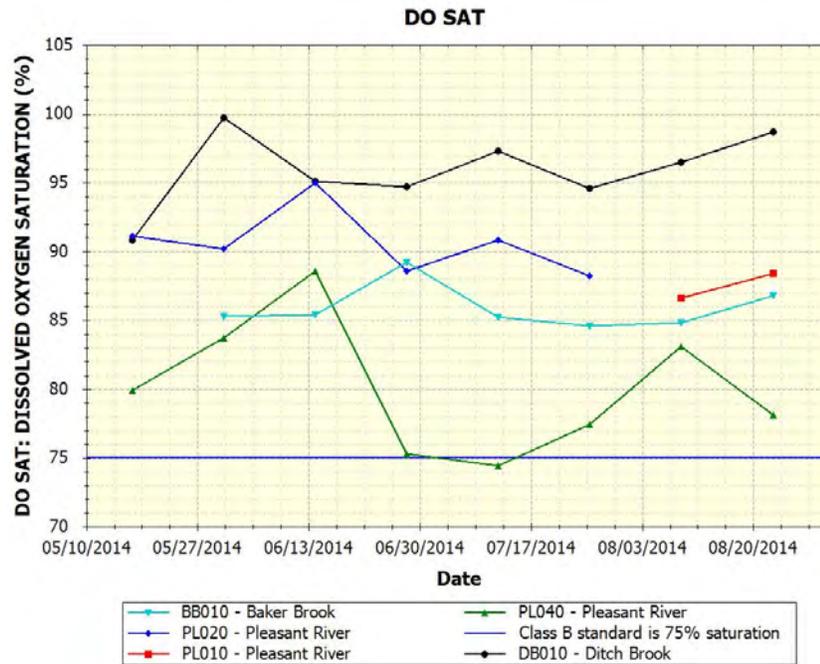
**Figure 5-7-9:** Graph of dissolved oxygen concentrations at sites on the lower Presumpscot tributaries.



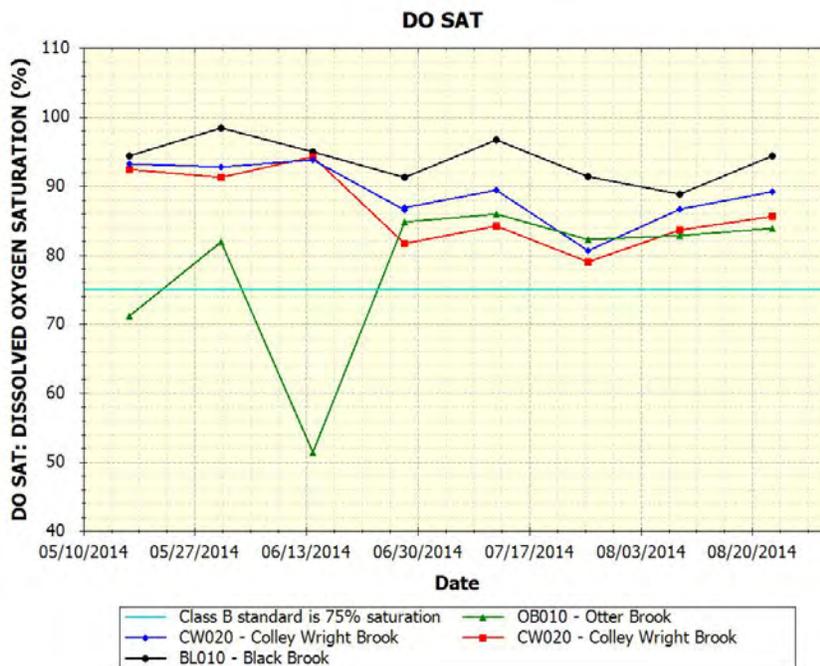
**Figure 5-7-10:** Graph of dissolved oxygen saturation at sites on the mainstem of the Presumpscot River



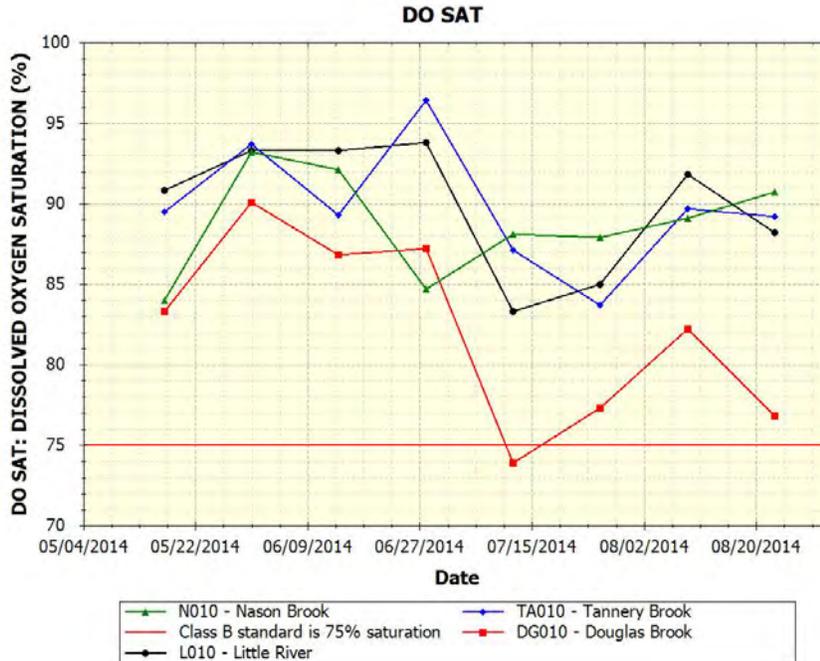
**Figure 5-7-11:** Graph of dissolved oxygen saturation at sites on the Pleasant River and tributaries



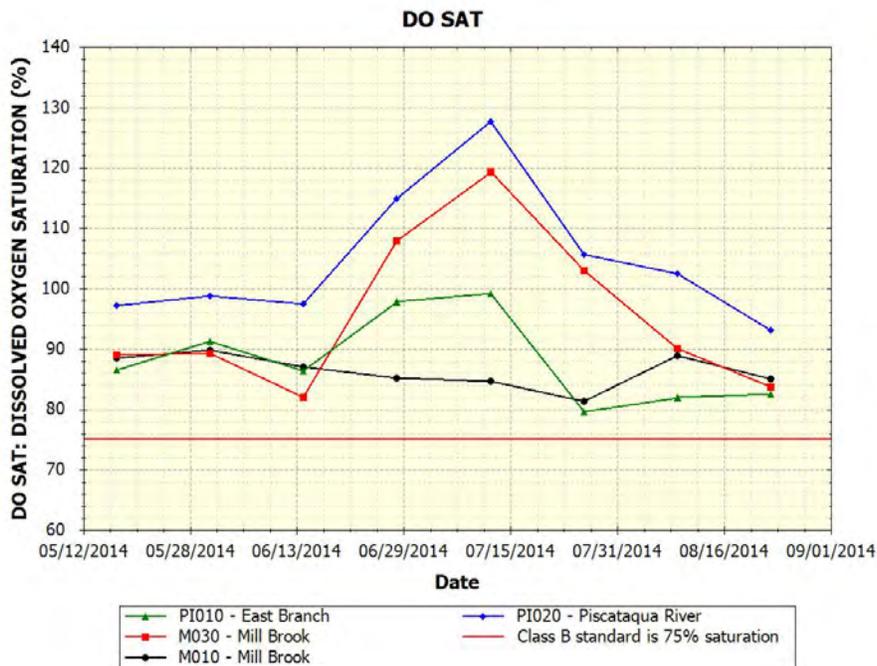
**Figure 5-7-12:** Graph of dissolved oxygen concentrations at sites on the upper Presumpscot tributaries-I.



**Figure 5-7-13:** Graph of dissolved oxygen saturation at sites on the upper Presumpscot tributaries-II.



**Figure 5-7- 14:** 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 1 to September 1, 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.

#### **2014 Results:**

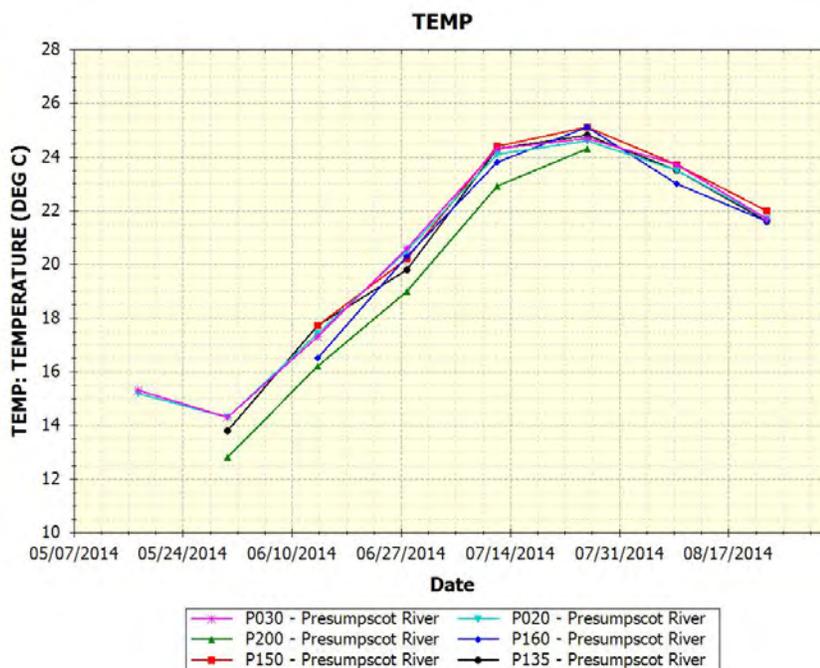
**Temperature at the main stem sites were very similar-mean temperatures ranged from 19-22.2°C. Temperatures increased through the summer, peaking toward the end of July. Main stem sites are generally higher than tributary sites. For the Pleasant River sites, temperature at site BB010 and PL040 never got above 20°C. Mean temperatures at sites DB010 and PL020 were higher due to 1 to 2 high readings in July and August. Temperatures at all the other upper Presumpscot tributaries (see table 5-7-4) were low with mean temperatures ranging from 13.2-16.9°C. Temperatures at the lower Presumpscot tributaries were low with the exception of site ML030. Site ML030 is at the outlet of Highland Lake, so higher temperatures are expected there.**

**Table 5-7-4:** A summary of minimum, maximum, and average water temperature values (°C) at Presumpscot River Watch monitoring sites.

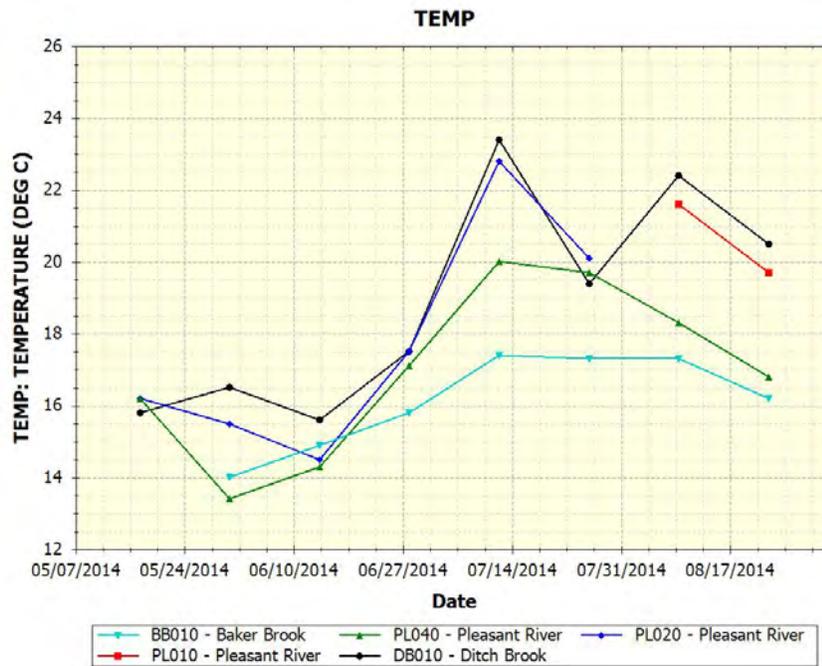
<b>Mainstem Sites (Ordered from upstream to downstream)</b>							
<b>Site</b>	<b>Class</b>	<b># of Observations</b>	<b>Average</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Criterion</b>	<b># Exceeding</b>
P200	A	5	19.0	12.8	24.3	n/a	n/a
P160	A	6	21.7	16.5	25.1	n/a	n/a
P150	A	6	22.2	17.7	25.1	n/a	n/a
P135	B	7	20.8	13.8	24.8	n/a	n/a
P030	C	8	20.2	14.3	24.7	n/a	n/a
P020	C	8	20.2	14.3	24.6	n/a	n/a
<b>Pleasant River and Tributaries</b>							
PL040	B	8	17.0	13.4	20.0	n/a	n/a
PL020	B	6	17.8	14.5	22.8	n/a	n/a
PL010	B	2	20.7	19.7	21.6	n/a	n/a
DB010	B	8	18.9	15.6	23.4	n/a	n/a
BB010	B	7	16.1	14.0	17.4	n/a	n/a

Upper Presumpscot Tributaries							
L010	B	8	16.9	13.1	19.4	n/a	n/a
DG010	B	8	16.7	12.7	19.5	n/a	n/a
TA010	B	8	15.6	13.0	18.0	n/a	n/a
BL010	B	8	15.0	12.5	16.8	n/a	n/a
OB010	B	8	13.2	11.3	14.2	n/a	n/a
N010	B	8	14.2	11.5	15.5	n/a	n/a
CW020	B	8	15.3	12.3	17.9	n/a	n/a
CW010	B	8	16.3	12.6	19.6	n/a	n/a
Lower Presumpscot River Tributaries5							
PI020	B	8	16.0	13.0	18.3	n/a	n/a
PI010	B	8	16.6	13.1	19.8	n/a	n/a
M030	B	8	20.6	16.3	24.4	n/a	n/a
M010	B	8	17.0	13.4	19.7	n/a	n/a

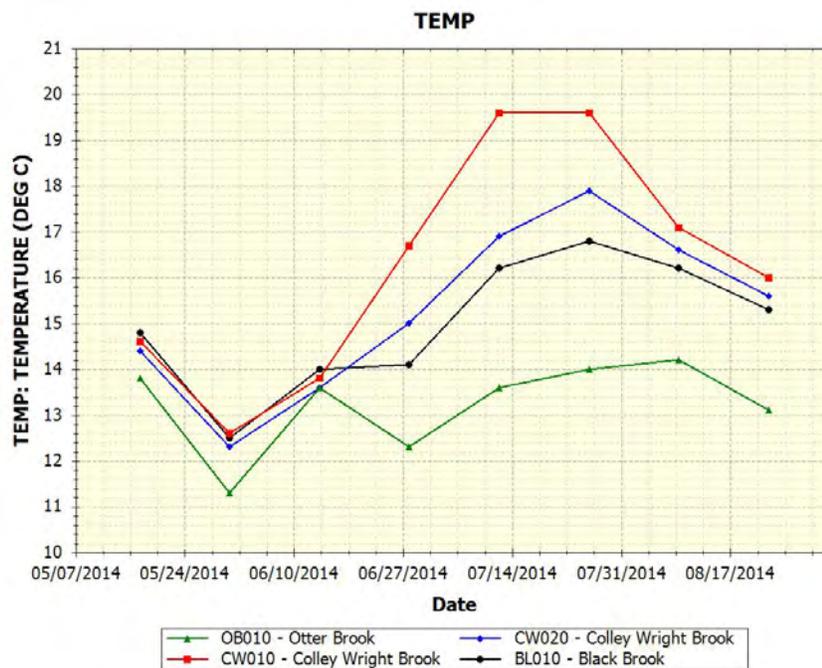
Figure 5-7-15: Graph of water temperature at sites on the main stem of the Presumpscot River



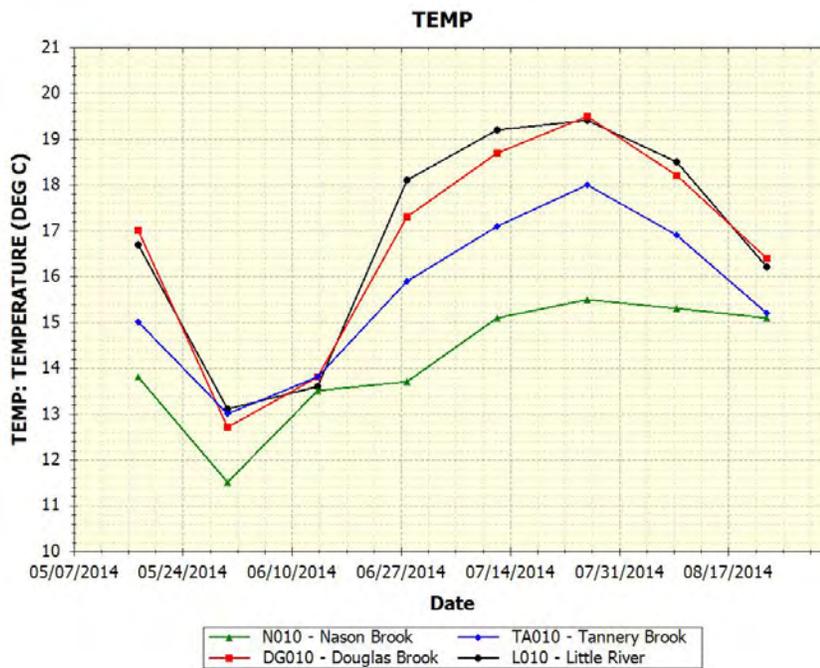
**Figure 5-7-16:** Graph of water temperature at sites on the Pleasant River and tributaries



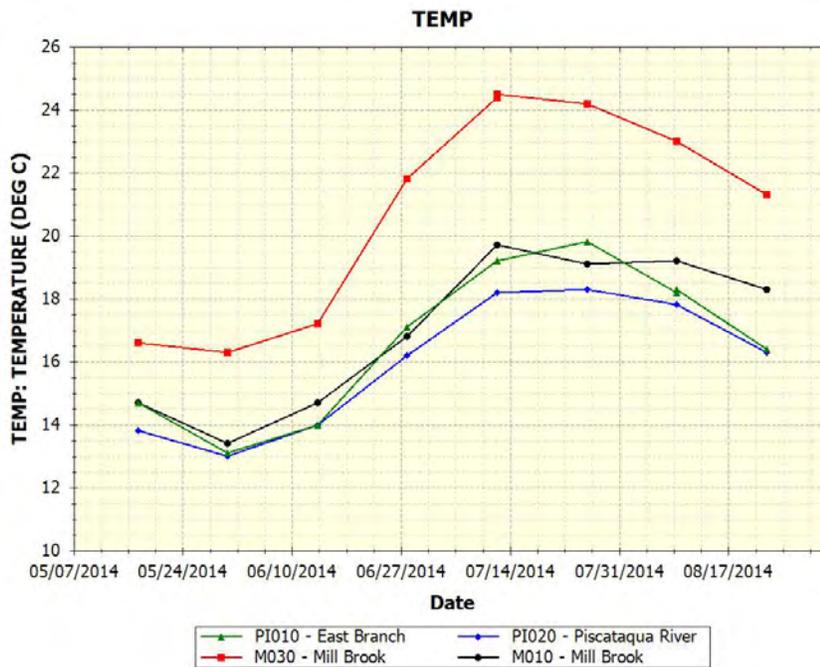
**Figure 5-7-17:** Graph of water temperature at sites on the upper Presumpscot tributaries-I.



**Figure 5-7-18:** Graph of water temperature at sites on the upper Presumpscot Tributaries-II.



**Figure 5-7- 19:** Graph of water temperature at sites on the lower Presumpscot tributaries.



### Specific Conductance

Specific conductance 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.

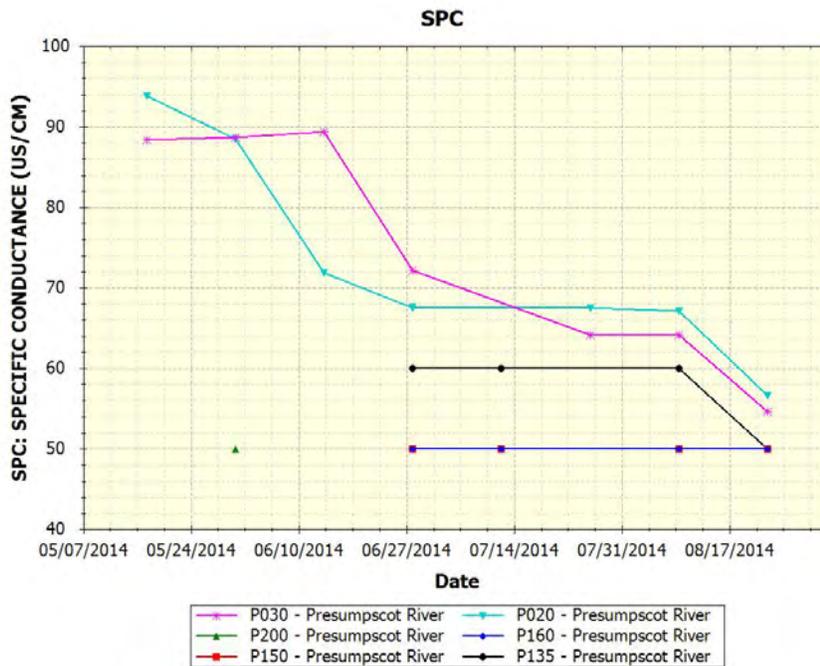
#### 2014 Results:

Specific conductance at the main stem sites and Pleasant River (only 1 site measured) were all low (<100  $\mu\text{S}/\text{cm}$ ). Specific conductance at all the other tributaries was generally higher than the main stem sites. The highest specific conductance occurred at sites TA010, BL010, PI010, and PI020-specific conductance here is moderate likely in part due to these sites being in more developed watersheds.

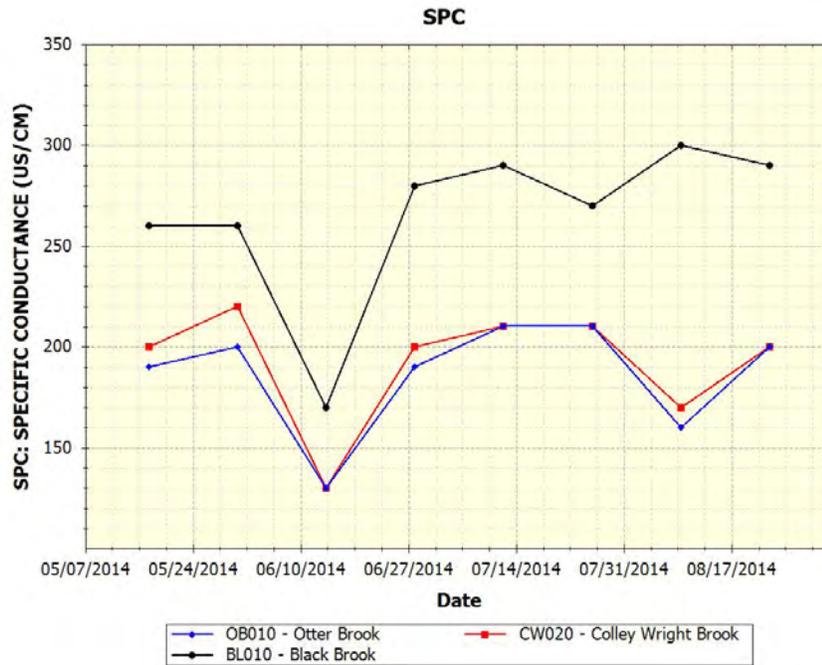
Mainstem Sites (Ordered from upstream to downstream)							
Site	Class	# of Observations	Average	Minimum	Maximum	Criterion	# Exceeding
P200	A	1	50	50	50	n/a	n/a
P160	A	4	50	50	50	n/a	n/a
P150	A	4	50	50	50	n/a	n/a
P135	B	4	58	50	60	n/a	n/a
P030	C	7	74	55	89	n/a	n/a
P020	C	7	73	57	94	n/a	n/a
Pleasant River and Tributaries							
PL040	B	0	-	-	-	n/a	n/a
PL020	B	1	120	120	120	n/a	n/a
PL010	B	0	-	-	-	n/a	n/a
DB010	B	0	-	-	-	n/a	n/a
BB010	B	1	30	30	30	n/a	n/a
Upper Presumpscot Tributaries							
L010	B	8	161	123	193	n/a	n/a
DG010	B	8	114	81	136	n/a	n/a
TA010	B	8	275	40	370	n/a	n/a
BL010	B	8	265	170	300	n/a	n/a

OB010	B	0	-	-	-	n/a	n/a
N010	B	0	-	-	-	n/a	n/a
CW020	B	8	186	130	210	n/a	n/a
CW010	B	8	193	130	220	n/a	n/a
Lower Presumpscot River Tributaries5							
PI020	B	6	226	106	293	n/a	n/a
PI010	B	5	222	190	251	n/a	n/a
M030	B	6	72	63	78	n/a	n/a
M010	B	7	124	96	152	n/a	n/a

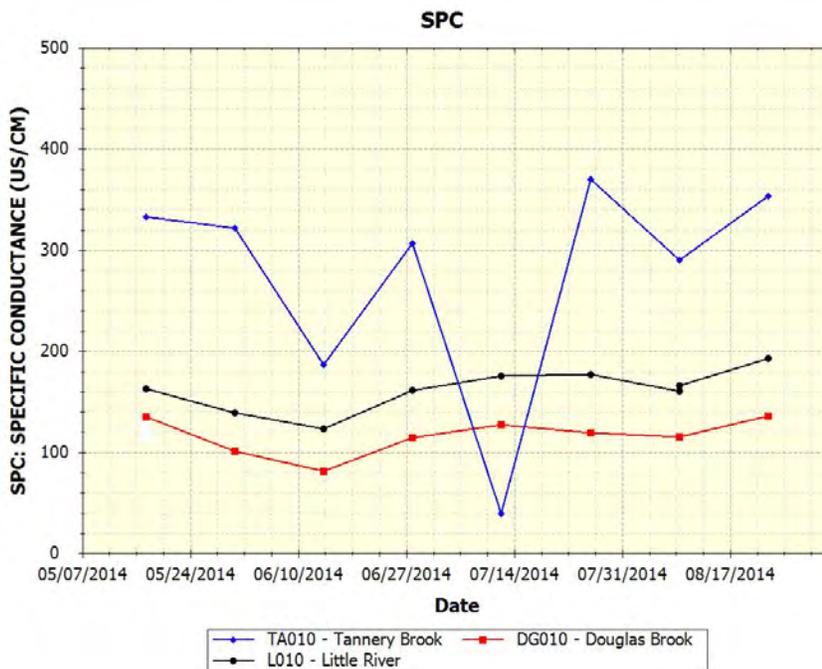
**Figure 5-7-20:** Graph of specific conductance at sites on the main stem of the Presumpscot River

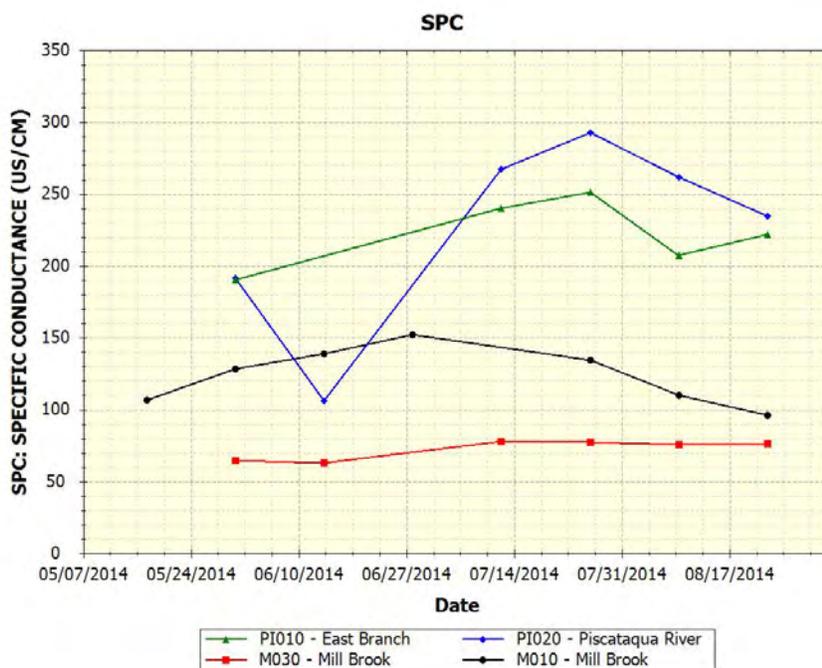


**Figure 5-7-21:** Graph of specific conductance at sites on the upper Presumpscot tributaries-I.



**Figure 5-7-22:** Graph of specific conductance at sites in the upper Presumpscot tributaries-II.



**Figure 5-7- 23:** Graph of specific conductance at sites on the lower Presumpscot tributaries.

## Bacteria

*Escherichia 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 6 samples and include a mix of dry and storm event sampling.

Class B criteria for bacteria are as follows: “Between May 15<sup>th</sup> and September 30<sup>th</sup>, the number of *Escherichia 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 15<sup>th</sup> and September 30<sup>th</sup>, the number of *Escherichia 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.

### 2014 Results:

Typically, observed high bacteria levels are associated with stormwater runoff and/or combined sewer overflows. There were 3 dates which coincided with rain events-5/17/14, 5/31/14 and 6/14/14 (heavy rain). The highest bacteria results were on the 5/17/14 and 6/14/14 dates. On the main stem, there were 0-2 exceedances of the instantaneous bacteria criterion which occurred on the 5/17/14 and/or the 6/14/14 date. The exception was site P135 which exceeded the instantaneous criterion on 3 of 7 sample dates and also exceeded the geometric mean criterion. On the Pleasant River and tributaries, sites PL020, DB010, and BB010 exceeded the instantaneous criterion 1 time (6/14/14). Site PL040 exceeded the instantaneous criterion 6 out of 8 sample dates and exceeded the geometric mean criterion. Bacteria on the Pleasant River were overall good with the exception of site PI040.

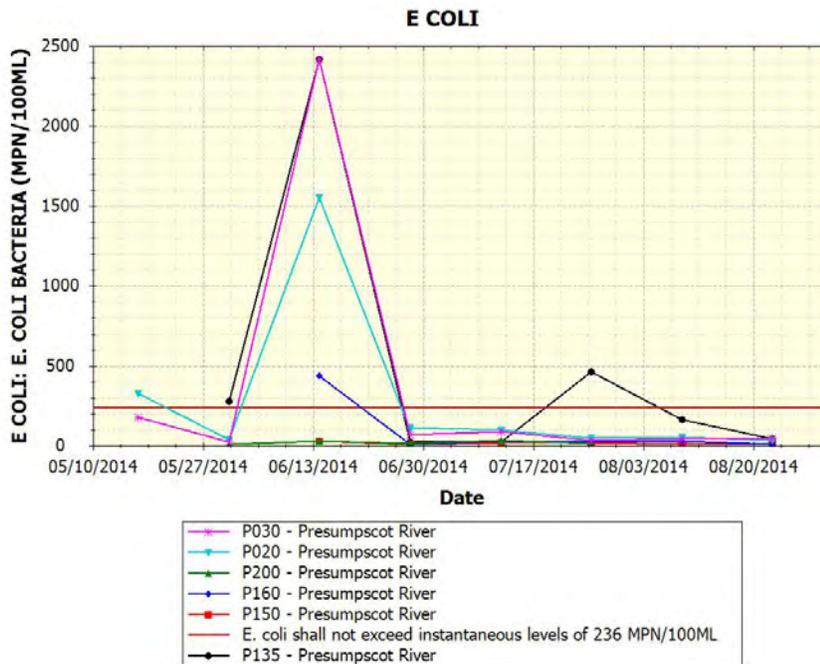
**The other tributaries generally had much higher bacteria results with all but sites L010 and DG010 exceeding the instantaneous criterion 3 or more times. All exceeded the geometric mean criterion.**

**Table 5-7-5:** A summary of minimum, maximum, and geometric mean values (MPN/100 mL) for bacteria at Presumpscot River Watch monitoring sites.

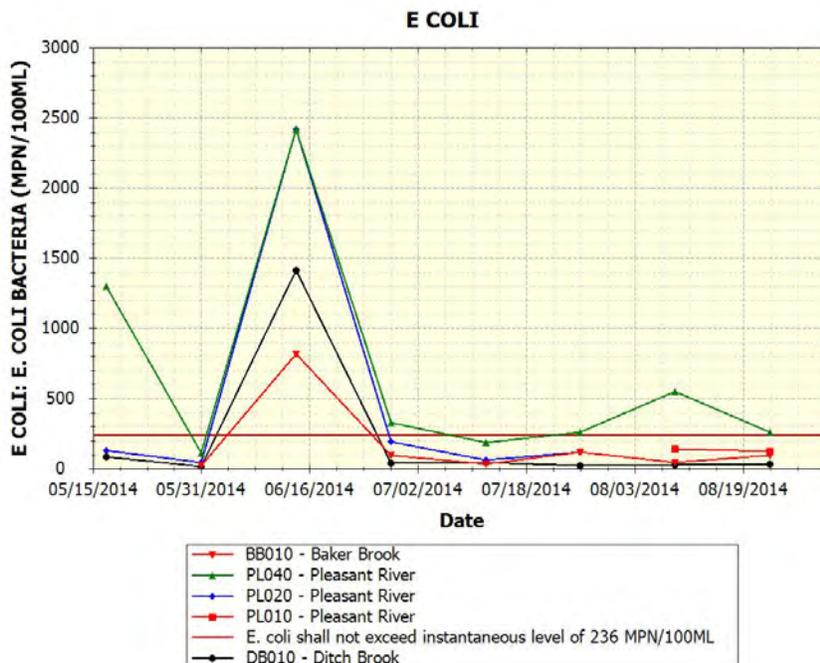
<b>Mainstem Sites (Ordered from upstream to downstream)</b>							
<b>Site</b>	<b>Class</b>	<b># of Observations</b>	<b>Average</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Criterion Inst/Geo</b>	<b># Exceeding</b>
P200	A	5	17	8	31	194/29	0
P160	A	6	30	8	436	194/29	1
P150	A	6	14	6	30	194/29	0
P135	B	7	142	23	2420	236/64	3
P030	C	8	89	25	2420	236/126	1
P020	C	8	107	34	1553	236/126	2
<b>Pleasant River and Tributaries</b>							
PL040	B	8	411	114	2420	236/64	6
PL020	B	6	162	42	2420	236/64	1
PL010	B	2	130	122	137	236/64	0
DB010	B	8	53	17	1414	236/64	1
BB010	B	7	84	22	816	236/64	1
<b>Upper Presumpscot Tributaries</b>							
L010	B	8	285	115	2420	236/64	2
DG010	B	8	172	62	2420	236/64	1
TA010	B	8	310	75	2420	236/64	3
BL010	B	8	175	31	2420	236/64	3
OB010	B	8	535	119	2420	236/64	6
N010	B	8	288	105	1986	236/64	4
CW020	B	8	432	69	2420	236/64	5
CW010	B	8	817	235	2420	236/64	8
<b>Lower Presumpscot River Tributaries<sup>5</sup></b>							
PI020	B	8	318	101	2420	236/64	3

PI010	B	8	372	114	2420	236/64	5
MO30	B	8	59	12	687	236/64	2
MO10	B	8	499	192	2420	236/64	5

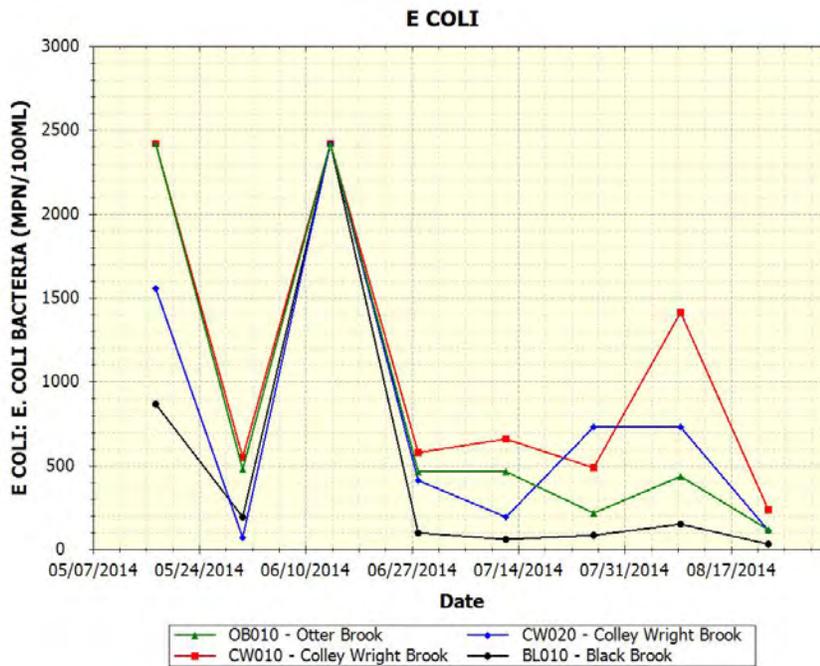
**Figure 5-7-24:** Graph of E. coli (MPN/ml) at sites on the main stem of the Presumpscot River



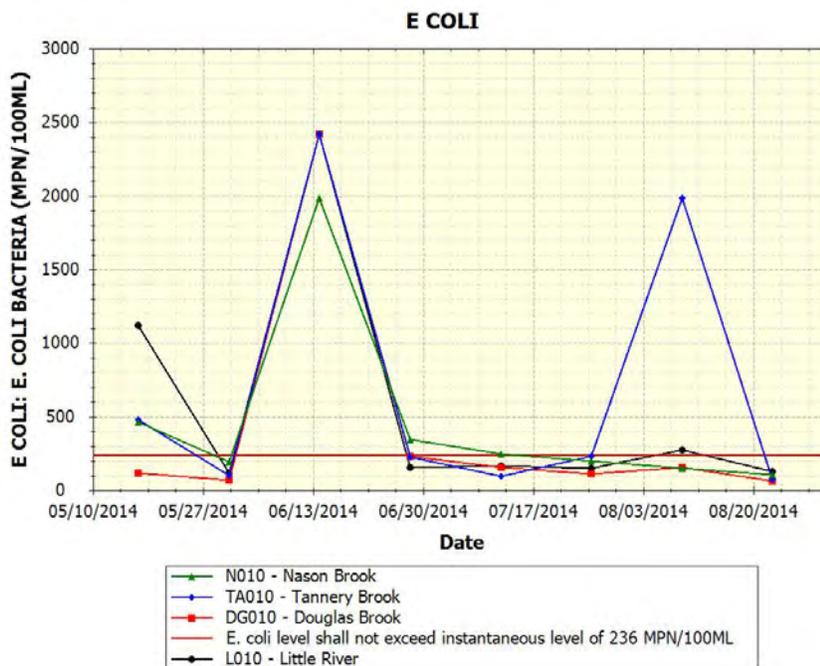
**Figure 5-7-25:** Graph of E. coli (MPN/ml) at sites on the Pleasant River and Tributaries

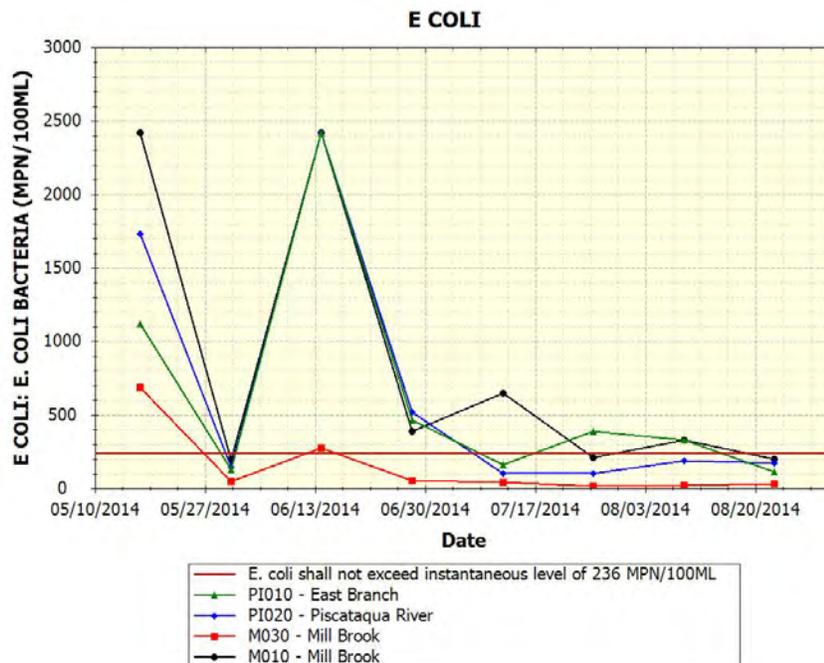


**Figure 5-7-26:** Graph of E. coli (MPN/ml) at sites on the upper Presumpscot tributaries-I.



**Figure 5-7-27:** Graph of E. coli (MPN/ml) at sites at sites in the upper Presumpscot tributaries-II.



**Figure 5-7- 28:** 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. This 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.**

- **Although access may be difficult, we strongly recommend an additional site directly upstream of Presumpscot Falls in order to document dissolved oxygen levels in the lowest freshwater reach of the river. This is where, longitudinally, the lowest dissolved oxygen readings for the lower Presumpscot are expected to be found.**
- **Further monitoring of *E. coli* bacteria in the tributaries in order to determine sources. Consider bracketing expected sources. Possible partner with DEP to do some follow-up monitoring.**
- **There is now five plus years of record for the majority of most sample sites. Consider re-evaluating the necessity of some sites and the potential for additions. The Department can assist in data analysis. Two initial recommendations are:**
  - **Make a determination of the low DO cause on Otter Brook. It is likely attributed to natural flow conditions. Even though the low DO concentrations are excessive, the small catchment and subsequent flow rates to the Presumpscot have very little influence on the main stem concentration. Consider discontinuing or at least decreasing the frequency of sampling at Otter Brook.**

Appendix A-1. 2014 water quality data for "Approved" and "Non-Approved" sites. Non-Approved sites do not yet meet official VRMP sample location criteria and/or require further inspection and review.

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

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

Refer to Appendix A-2 for observational data and quality assurance/quality control (QA/QC) notes.

Organization Site Code	VRMP Site ID	Date	Time	** Sample Type Qualifier	* Sample Depth	Depth Unit	Water Temp (DEG C)	** D.O. Sat. (%)	** D.O. (MG/L)	** Spec. Cond. (US/CM)	Salinity (PPTH)	Turbidity (NTU)	Total Diss. Solids (MG/L)	** TSS (MG/L)	E Coli Bacteria (MPN/100ML)	Enterococci (MP)
<b>Presumpscot River - Presumpscot River Watch : Approved Sites</b>																
BB010	BAKER BROOK - RPLBK17 - VRMP	5/31/2014	8:10 AM	N			14	85.3	8.79	30					22.1	
BB010	BAKER BROOK - RPLBK17 - VRMP	6/14/2014	7:06 AM	N			14.9	85.4	8.63						816.4	
BB010	BAKER BROOK - RPLBK17 - VRMP	6/28/2014	6:22 AM	N			15.8	89.2	8.66						96	
BB010	BAKER BROOK - RPLBK17 - VRMP	6/28/2014	6:22 AM	D											69.5	
BB010	BAKER BROOK - RPLBK17 - VRMP	7/12/2014	6:15 AM	N			17.4	85.2	8.11						33.5	
BB010	BAKER BROOK - RPLBK17 - VRMP	7/26/2014	6:17 AM	N			17.3	84.6	8.08						117.8	
BB010	BAKER BROOK - RPLBK17 - VRMP	8/9/2014	6:40 AM	N			17.3	84.8	8.15						44.1	
BB010	BAKER BROOK - RPLBK17 - VRMP	8/23/2014	7:00 AM	N			16.2	87.1	8.56						95.9	
BB010	BAKER BROOK - RPLBK17 - VRMP	8/23/2014	7:00 AM	D			16.2	86.8	8.54						85.7	
BL010	BLACK BROOK- RBK05 -VRMP	5/17/2014	7:40 AM	N			14.8	94.3	9.54	260					866.4	
BL010	BLACK BROOK- RBK05 -VRMP	5/31/2014	8:52 AM	N			12.5	98.4	10.43	260					193.5	
BL010	BLACK BROOK- RBK05 -VRMP	6/14/2014	7:50 AM	N			14	94.9	9.77	170					2419.6	
BL010	BLACK BROOK- RBK05 -VRMP	6/28/2014	8:30 AM	N			14.1	91.2	9.44	280					95.9	
BL010	BLACK BROOK- RBK05 -VRMP	7/12/2014	8:10 AM	N			16.2	96.7	9.58	290					59.4	
BL010	BLACK BROOK- RBK05 -VRMP	7/26/2014	8:20 AM	N			16.8	91.4	8.82	270					83.6	
BL010	BLACK BROOK- RBK05 -VRMP	8/9/2014	8:15 AM	N			16.2	88.8	8.83	300					150	
BL010	BLACK BROOK- RBK05 -VRMP	8/9/2014	8:15 AM	D											261.3	
BL010	BLACK BROOK- RBK05 -VRMP	8/23/2014	8:25 AM	N			15.3	94.4	9.45	290					30.5	
CW010	COLLEY WRIGHT BROOK - RCW10 - VRMP	5/17/2014	7:23 AM	N			14.6	92.4	9.41	200					2419.6	
CW010	COLLEY WRIGHT BROOK - RCW10 - VRMP	5/31/2014	8:40 AM	N			12.6	91.2	9.75	220					547.5	
CW010	COLLEY WRIGHT BROOK - RCW10 - VRMP	6/14/2014	7:35 AM	N			13.8	94.2	9.73	130					2419.6	
CW010	COLLEY WRIGHT BROOK - RCW10 - VRMP	6/28/2014	8:15 AM	N			16.7	81.6	7.93	200					579.4	
CW010	COLLEY WRIGHT BROOK - RCW10 - VRMP	7/12/2014	7:50 AM	N			19.6	84.2	7.78	210					658.6	
CW010	COLLEY WRIGHT BROOK - RCW10 - VRMP	7/26/2014	8:05 AM	N			19.6	79	7.27	210					488.4	
CW010	COLLEY WRIGHT BROOK - RCW10 - VRMP	8/9/2014	8:00 AM	N			17.1	83.6	8.07	170					1413.6	

Organization Site Code	VRMP Site ID	Date	Time	** Sample Type Qualifier	* Sample Depth	Depth Unit	Water Temp (DEG C)	** D.O. Sat. (%)	** D.O. (MG/L)	** Spec. Cond. (US/CM)	Salinity (PPTH)	Turbidity (NTU)	Total Diss. Solids (MG/L)	** TSS (MG/L)	E Coli Bacteria (MPN/100ML)	Enterococci (MP)
CW010	COLLEY WRIGHT BROOK - RCW10 - VRMP	8/9/2014	8:00 AM	D											1119.85	
CW010	COLLEY WRIGHT BROOK - RCW10 - VRMP	8/23/2014	8:10 AM	N			16	85.6	8.43	200					235.9	
CW020	COLLEY WRIGHT BROOK - RCW28 - VRMP	5/17/2014	7:00 AM	N			14.4	93.2	9.54	190					1553.1	
CW020	COLLEY WRIGHT BROOK - RCW28 - VRMP	5/31/2014	8:14 AM	N			12.3	92.7	9.91	200					69.1	
CW020	COLLEY WRIGHT BROOK - RCW28 - VRMP	6/14/2014	7:20 AM	N			13.6	93.8	9.73	130					2419.6	
CW020	COLLEY WRIGHT BROOK - RCW28 - VRMP	6/28/2014	7:40 AM	N			15	86.9	8.75	190					410.6	
CW020	COLLEY WRIGHT BROOK - RCW28 - VRMP	6/28/2014	7:40 AM	D			15	86.5	8.73	190					461.1	
CW020	COLLEY WRIGHT BROOK - RCW28 - VRMP	7/12/2014	7:25 AM	N			16.9	89.4	8.66	210					191.8	
CW020	COLLEY WRIGHT BROOK - RCW28 - VRMP	7/26/2014	7:40 AM	N			17.9	80.6	7.62	210					727	
CW020	COLLEY WRIGHT BROOK - RCW28 - VRMP	8/9/2014	7:45 AM	N			16.6	86.6	8.42	160					727	
CW020	COLLEY WRIGHT BROOK - RCW28 - VRMP	8/9/2014	7:45 AM	D											866.4	
CW020	COLLEY WRIGHT BROOK - RCW28 - VRMP	8/23/2014	7:50 AM	N			15.6	89.2	8.83	200					113.7	
DB010	DITCH BROOK - RPL00 - VRMP	5/17/2014	6:33 AM	N			15.8	90.8	9						85.7	
DB010	DITCH BROOK - RPL00 - VRMP	5/31/2014	6:23 AM	N			16.5	99.7	9.4						17.3	
DB010	DITCH BROOK - RPL00 - VRMP	6/14/2014	6:23 AM	N			15.6	95.1	9.5						1413.6	
DB010	DITCH BROOK - RPL00 - VRMP	6/28/2014	6:25 AM	N			17.5	94.7	9						39.5	
DB010	DITCH BROOK - RPL00 - VRMP	6/28/2014	6:25 AM	D											56.3	
DB010	DITCH BROOK - RPL00 - VRMP	7/12/2014	6:08 AM	N			23.4	97.3	8.28						45.7	
DB010	DITCH BROOK - RPL00 - VRMP	7/26/2014	6:30 AM	N			19.4	94.6	8.7						21.8	
DB010	DITCH BROOK - RPL00 - VRMP	8/9/2014	6:35 AM	N			22.4	96.5	8.3						26.2	
DB010	DITCH BROOK - RPL00 - VRMP	8/23/2014	6:35 AM	N			20.5	98.7	8.88						30.1	
DG010	DOUGLAS BROOK - RLTNBDG20 - VRMP	5/17/2014	7:22 AM	N			17	83.3	8.27	117					117.8	
DG010	DOUGLAS BROOK - RLTNBDG20 - VRMP	5/17/2014	7:22 AM	D			15.6	86	8.7	135					193.5	
DG010	DOUGLAS BROOK - RLTNBDG20 - VRMP	5/31/2014	6:52 AM	N			12.7	90.1	9.55	101					69.7	
DG010	DOUGLAS BROOK - RLTNBDG20 - VRMP	6/14/2014	6:45 AM	N			13.8	86.8	8.99	81					2419.6	

Organization Site Code	VRMP Site ID	Date	Time	** Sample Type Qualifier	* Sample Depth	Depth Unit	Water Temp (DEG C)	** D.O. Sat. (%)	** D.O. (MG/L)	** Spec. Cond. (US/CM)	Salinity (PPTH)	Turbidity (NTU)	Total Diss. Solids (MG/L)	** TSS (MG/L)	E Coli Bacteria (MPN/100ML)	Enterococci (MP)
DG010	DOUGLAS BROOK - RLTNBDG20 - VRMP	6/28/2014	6:58 AM	N			17.3	87.2	8.38	114					231	
DG010	DOUGLAS BROOK - RLTNBDG20 - VRMP	7/12/2014	6:52 AM	N			18.7	73.9	6.89	127					156.5	
DG010	DOUGLAS BROOK - RLTNBDG20 - VRMP	7/26/2014	6:53 AM	N			19.5	77.3	7.11	119					110.6	
DG010	DOUGLAS BROOK - RLTNBDG20 - VRMP	8/9/2014	7:22 AM	N			18.2	82.2	7.76	115					155.3	
DG010	DOUGLAS BROOK - RLTNBDG20 - VRMP	8/9/2014	7:22 AM	D			18.2	82.4	7.77	115					160.7	
DG010	DOUGLAS BROOK - RLTNBDG20 - VRMP	8/23/2014	6:58 AM	N			16.4	76.8	7.52	136					62	
PI010	EAST BRANCH PISCATAQUA RIVER - RPSEB05 - VRMP	5/17/2014	7:55 AM	N			14.7	86.5							1119.9	
PI010	EAST BRANCH PISCATAQUA RIVER - RPSEB05 - VRMP	5/31/2014	7:35 AM	N			13.1	91.22	9.59	190					129.1	
PI010	EAST BRANCH PISCATAQUA RIVER - RPSEB05 - VRMP	6/14/2014	7:30 AM	N			14	86.3	8.88						2419.6	
PI010	EAST BRANCH PISCATAQUA RIVER - RPSEB05 - VRMP	6/28/2014	7:50 AM	N			17.1	97.7	9.38						461.1	
PI010	EAST BRANCH PISCATAQUA RIVER - RPSEB05 - VRMP	6/28/2014	7:50 AM	D			17.1	97.8	9.44							
PI010	EAST BRANCH PISCATAQUA RIVER - RPSEB05 - VRMP	7/12/2014	7:40 AM	N			19.2	99.1	9.13	239.9					159.7	
PI010	EAST BRANCH PISCATAQUA RIVER - RPSEB05 - VRMP	7/26/2014	7:35 AM	N			19.8	79.6	7.27	251.4					387.3	
PI010	EAST BRANCH PISCATAQUA RIVER - RPSEB05 - VRMP	8/9/2014	8:05 AM	N			18.3	81.8	7.69	207.3					325.5	
PI010	EAST BRANCH PISCATAQUA RIVER - RPSEB05 - VRMP	8/9/2014	8:05 AM	D			18.2	82	7.72	206.8					261.3	
PI010	EAST BRANCH PISCATAQUA RIVER - RPSEB05 - VRMP	8/23/2014	7:25 AM	N			16.4	82.5	8.07	221.9					113.7	
M010	MILL BROOK - RML01 - VRMP	5/17/2014	7:00 AM	N			14.7	88.5	8.99	106.6					2419.6	
M010	MILL BROOK - RML01 - VRMP	5/31/2014	6:55 AM	N			13.4	89.8	9.41	128.5					191.8	
M010	MILL BROOK - RML01 - VRMP	6/14/2014	6:55 AM	N			14.7	87	8.87	138.5					2419.6	
M010	MILL BROOK - RML01 - VRMP	6/28/2014	6:55 AM	N			16.8	85.1	8.19	152.1					387.3	
M010	MILL BROOK - RML01 - VRMP	7/12/2014	7:15 AM	N			19.7	84.6	7.84						648.8	
M010	MILL BROOK - RML01 - VRMP	7/26/2014	8:05 AM	N			19.1	81.3	7.98	134.1					209.8	
M010	MILL BROOK - RML01 - VRMP	8/9/2014	8:10 AM	N			19.2	88.9	8.15	109.7					325.5	
M010	MILL BROOK - RML01 - VRMP	8/23/2014	8:00 AM	N			18.3	85	8.04	96.2					198.9	
M030	MILL BROOK - RML63 - VRMP	5/17/2014	8:45 AM	N			16.6	89							686.7	

Organization Site Code	VRMP Site ID	Date	Time	** Sample Type Qualifier	* Sample Depth	Depth Unit	Water Temp (DEG C)	** D.O. Sat. (%)	** D.O. (MG/L)	** Spec. Cond. (US/CM)	Salinity (PPTH)	Turbidity (NTU)	Total Diss. Solids (MG/L)	** TSS (MG/L)	E Coli Bacteria (MPN/100ML)	Enterococci (MP)
M030	MILL BROOK - RML63 - VRMP	5/31/2014	8:10 AM	N			16.3	89.21	8.75	64.5					48.1	
M030	MILL BROOK - RML63 - VRMP	6/14/2014	8:00 AM	N			17.2	82	7.89	63.1					275.5	
M030	MILL BROOK - RML63 - VRMP	6/28/2014	8:50 AM	N			21.8	107.8	9.42						54.5	
M030	MILL BROOK - RML63 - VRMP	7/12/2014	8:20 AM	N			24.4	119.4	9.96	78.1					42.2	
M030	MILL BROOK - RML63 - VRMP	7/12/2014	8:20 AM	D			24.5	119.2	9.92	78.1					43.5	
M030	MILL BROOK - RML63 - VRMP	7/26/2014	8:15 AM	N			24.2	103	8.65	77.5					11.9	
M030	MILL BROOK - RML63 - VRMP	8/9/2014	8:50 AM	N			23	90	7.72	75.4					18.7	
M030	MILL BROOK - RML63 - VRMP	8/23/2014	8:00 AM	N			21.3	83.7	7.42	76.3					29.5	
N010	NASON BROOK - RNS11 - VRMP	5/17/2014	6:59 AM	N			13.8	84	8						461.1	
N010	NASON BROOK - RNS11 - VRMP	5/31/2014	6:59 AM	N			11.5	93.2	10.1						193.5	
N010	NASON BROOK - RNS11 - VRMP	6/14/2014	6:44 AM	N			13.5	92.1	9.6						1986.28	
N010	NASON BROOK - RNS11 - VRMP	6/28/2014	6:51 AM	N			13.7	84.7	9						344.8	
N010	NASON BROOK - RNS11 - VRMP	6/28/2014	6:51 AM	D											461.1	
N010	NASON BROOK - RNS11 - VRMP	7/12/2014	6:33 AM	N			15.1	88.1	8.8						248.1	
N010	NASON BROOK - RNS11 - VRMP	7/26/2014	6:56 AM	N			15.5	87.9	8.7						195.6	
N010	NASON BROOK - RNS11 - VRMP	8/9/2014	6:55 AM	N			15.3	89.1	8.9						151.5	
N010	NASON BROOK - RNS11 - VRMP	8/23/2014	6:50 AM	N			15.1	90.7	9.07						105	
OB010	OTTER BROOK - ROT06 - VRMP	5/17/2014	5:56 AM	N			13.8	71.1	7.4						2419.6	
OB010	OTTER BROOK - ROT06 - VRMP	5/31/2014	6:05 AM	N			11.3	81.9	8.9						478.6	
OB010	OTTER BROOK - ROT06 - VRMP	6/14/2014	5:53 AM	N			13.6	51.4	5.3						2419.6	
OB010	OTTER BROOK - ROT06 - VRMP	6/28/2014	5:40 AM	N			12.3	84.8	9						461.1	
OB010	OTTER BROOK - ROT06 - VRMP	6/28/2014	5:40 AM	D											816.4	
OB010	OTTER BROOK - ROT06 - VRMP	7/12/2014	5:35 AM	N			13.6	85.9	8.5						461.1	
OB010	OTTER BROOK - ROT06 - VRMP	7/26/2014	5:50 AM	N			14	82.2	8.4						218.7	
OB010	OTTER BROOK - ROT06 - VRMP	8/9/2014	6:00 AM	N			14.2	82.8	8.5						435.2	
OB010	OTTER BROOK - ROT06 - VRMP	8/23/2014	6:03 AM	N			13.1	83.8	8.83						118.7	
PI020	PISCATAQUA RIVER - RPS12 - VRMP	5/17/2014	8:15 AM	N			13.8	97.2							1732.9	
PI020	PISCATAQUA RIVER - RPS12 - VRMP	5/31/2014	7:50 AM	N			13	98.7	10.4	191.2					146.7	
PI020	PISCATAQUA RIVER - RPS12 - VRMP	6/14/2014	7:40 AM	N			14	97.4	10.04	105.9					2419.6	
PI020	PISCATAQUA RIVER - RPS12 - VRMP	6/28/2014	8:20 AM	N			16.2	114.8	11.26						517.2	
PI020	PISCATAQUA RIVER - RPS12 - VRMP	7/12/2014	7:55 AM	N			18.2	127.7	12.04	267					101.7	
PI020	PISCATAQUA RIVER - RPS12 - VRMP	7/26/2014	7:50 AM	N			18.3	105.6	9.92	292.8					101.4	
PI020	PISCATAQUA RIVER - RPS12 - VRMP	8/9/2014	8:20 AM	N			17.8	102.4	9.73	261.7					185	

Organization Site Code	VRMP Site ID	Date	Time	** Sample Type Qualifier	* Sample Depth	Depth Unit	Water Temp (DEG C)	** D.O. Sat. (%)	** D.O. (MG/L)	** Spec. Cond. (US/CM)	Salinity (PPTH)	Turbidity (NTU)	Total Diss. Solids (MG/L)	** TSS (MG/L)	E Coli Bacteria (MPN/100ML)	Enterococci (MP)
PI020	PISCATAQUA RIVER - RPS12 - VRMP	8/23/2014	7:40 AM	N			16.3	93.1	9.12	234.6					172.2	
PL010	PLEASANT RIVER - RPL06 - VRMP	8/9/2014	7:00 AM	N			21.6	86.6	7.63						137.4	
PL010	PLEASANT RIVER - RPL06 - VRMP	8/23/2014	7:25 AM	N			19.7	88.4	8.12						122.3	
PL020	PLEASANT RIVER - RPL29 - VRMP	5/17/2014	6:15 AM	N			16.2	91.1	8.95						129.1	
PL020	PLEASANT RIVER - RPL29 - VRMP	5/31/2014	8:30 AM	N			15.5	90.2	9	120					42.2	
PL020	PLEASANT RIVER - RPL29 - VRMP	6/14/2014	7:24 AM	N			14.5	95	9.68						2419.6	
PL020	PLEASANT RIVER - RPL29 - VRMP	6/28/2014	7:16 AM	N			17.5	88.6	8.56						193.5	
PL020	PLEASANT RIVER - RPL29 - VRMP	6/28/2014	7:16 AM	D											160.7	
PL020	PLEASANT RIVER - RPL29 - VRMP	7/12/2014	6:58 AM	N			22.8	90.8	7.95						62.4	
PL020	PLEASANT RIVER - RPL29 - VRMP	7/26/2014	7:04 AM	N			20.1	88.2	7.94						114.5	
PLO40	PLEASANT RIVER - RPL47 - VRMP	5/17/2014	6:15 AM	N			16.2	79.9	7.6						1299.7	
PLO40	PLEASANT RIVER - RPL47 - VRMP	5/31/2014	6:17 AM	N			13.4	83.7	8.8						113.7	
PLO40	PLEASANT RIVER - RPL47 - VRMP	6/14/2014	6:12 AM	N			14.3	88.6	8.6						2419.6	
PLO40	PLEASANT RIVER - RPL47 - VRMP	6/28/2014	6:01 AM	N			17.1	75.3	7.56						325.5	
PLO40	PLEASANT RIVER - RPL47 - VRMP	6/28/2014	6:01 AM	D											272.3	
PLO40	PLEASANT RIVER - RPL47 - VRMP	7/12/2014	5:53 AM	N			20	74.4	7.5						187.2	
PLO40	PLEASANT RIVER - RPL47 - VRMP	7/26/2014	6:11 AM	N			19.7	77.4	6.9						261.3	
PLO40	PLEASANT RIVER - RPL47 - VRMP	8/9/2014	6:21 AM	N			18.3	83.1	7.8						547.5	
PLO40	PLEASANT RIVER - RPL47 - VRMP	8/23/2014	6:18 AM	N			16.8	78.1	7.58						260.2	
P135	PRESUMPCOT RIVER - R157 - VRMP	5/31/2014	7:25 AM	N			13.8	95.4	9.8						275.5	
P135	PRESUMPCOT RIVER - R157 - VRMP	6/14/2014	8:45 AM	N			17.7	94.6	9.15						2419.6	
P135	PRESUMPCOT RIVER - R157 - VRMP	6/28/2014	7:25 AM	N			19.8	92.5	8.5	60					23.3	
P135	PRESUMPCOT RIVER - R157 - VRMP	7/12/2014	8:35 AM	N			24.3	89.5	7.51	60					23.3	
P135	PRESUMPCOT RIVER - R157 - VRMP	7/26/2014	6:44 AM	N			24.8	85.4	7.04						461.1	
P135	PRESUMPCOT RIVER - R157 - VRMP	8/9/2014	7:35 AM	N			23.5	87.5	7.51	60					161.6	
P135	PRESUMPCOT RIVER - R157 - VRMP	8/9/2014	7:35 AM	D			23.5	88.4	7.49	60						
P135	PRESUMPCOT RIVER - R157 - VRMP	8/23/2014	7:25 AM	N			21.6	92.9	8.16	50					43.9	
P150	PRESUMPCOT RIVER - R166 - VRMP	6/14/2014	9:05 AM	N			17.7	98.6	9.4						30.1	
P150	PRESUMPCOT RIVER - R166 - VRMP	6/28/2014	7:45 AM	N			20.2	97	8.75	50					6.3	

Organization Site Code	VRMP Site ID	Date	Time	** Sample Type Qualifier	* Sample Depth	Depth Unit	Water Temp (DEG C)	** D.O. Sat. (%)	** D.O. (MG/L)	** Spec. Cond. (US/CM)	Salinity (PPTH)	Turbidity (NTU)	Total Diss. Solids (MG/L)	** TSS (MG/L)	E Coli Bacteria (MPN/100ML)	Enterococci (MP)
P150	PRESUMPCOT RIVER - R166 - VRMP	7/12/2014	8:17 AM	N			24.4	93.7	7.88	50					17.3	
P150	PRESUMPCOT RIVER - R166 - VRMP	7/26/2014	7:06 AM	N			25.1	89.5	7.35						18.5	
P150	PRESUMPCOT RIVER - R166 - VRMP	8/9/2014	8:00 AM	N			23.7	93.3	7.9	50					8.5	
P150	PRESUMPCOT RIVER - R166 - VRMP	8/9/2014	8:00 AM	D			23.7	93.5	7.91	50						
P150	PRESUMPCOT RIVER - R166 - VRMP	8/23/2014	7:40 AM	N			22	96.2	8.4	50					12.1	
P150	PRESUMPCOT RIVER - R166 - VRMP	8/23/2014	7:40 AM	D											8.4	
P160	PRESUMPCOT RIVER - R195 - VRMP	6/14/2014	9:15 AM	N			16.5	97.7	9.5						436	
P160	PRESUMPCOT RIVER - R195 - VRMP	6/28/2014	8:05 AM	N			20.3	98.1	8.9	50					9.7	
P160	PRESUMPCOT RIVER - R195 - VRMP	7/12/2014	7:53 AM	N			23.8	94	7.9	50					29.5	
P160	PRESUMPCOT RIVER - R195 - VRMP	7/26/2014	7:23 AM	N			25.1	91.2	7.48						22.6	
P160	PRESUMPCOT RIVER - R195 - VRMP	8/9/2014	8:20 AM	N			23	95.8	8.12	50					26.9	
P160	PRESUMPCOT RIVER - R195 - VRMP	8/9/2014	8:20 AM	D			23	95.7	8.17	50						
P160	PRESUMPCOT RIVER - R195 - VRMP	8/23/2014	8:20 AM	N			21.6	98.7	8.71	50					9.7	
P200	PRESUMPCOT RIVER - R225 - VRMP	5/31/2014	7:40 AM	N			12.8	102.2	10.72	50					9.7	
P200	PRESUMPCOT RIVER - R225 - VRMP	6/14/2014	6:45 AM	N			16.2	95.6	9.4						27.8	
P200	PRESUMPCOT RIVER - R225 - VRMP	6/28/2014	6:48 AM	N			19	95.1	8.85						11	
P200	PRESUMPCOT RIVER - R225 - VRMP	6/28/2014	6:48 AM	D											10.8	
P200	PRESUMPCOT RIVER - R225 - VRMP	7/12/2014	6:25 AM	N			22.9	90.2	7.89						30.5	
P200	PRESUMPCOT RIVER - R225 - VRMP	7/26/2014	6:39 AM	N			24.3	89.2	7.51						14.6	
P020	PRESUMPCOT RIVER - R24 - VRMP	5/17/2014	6:30 AM	N			15.2	92.7	9.24	93.8					325.5	

Organization Site Code	VRMP Site ID	Date	Time	** Sample Type Qualifier	* Sample Depth	Depth Unit	Water Temp (DEG C)	** D.O. Sat. (%)	** D.O. (MG/L)	** Spec. Cond. (US/CM)	Salinity (PPTH)	Turbidity (NTU)	Total Diss. Solids (MG/L)	** TSS (MG/L)	E Coli Bacteria (MPN/100ML)	Enterococci (MP)
P020	PRESUMPCOT RIVER - R24 - VRMP	5/31/2014	6:30 AM	N			14.3	96.1	9.74	88.5					37.9	
P020	PRESUMPCOT RIVER - R24 - VRMP	6/14/2014	6:20 AM	N			17.4	94.3	9.16	71.8					1553.07	
P020	PRESUMPCOT RIVER - R24 - VRMP	6/28/2014	6:20 AM	N			20.5	95.6	8.59	67.6					111.9	
P020	PRESUMPCOT RIVER - R24 - VRMP	6/28/2014	6:20 AM	D			20.5	96.1	8.63	67.5					95.9	
P020	PRESUMPCOT RIVER - R24 - VRMP	7/12/2014	6:50 AM	N			24.1	92.1	7.82						95.9	
P020	PRESUMPCOT RIVER - R24 - VRMP	7/26/2014	7:25 AM	N			24.6	88.4	7.42	67.5					49.6	
P020	PRESUMPCOT RIVER - R24 - VRMP	8/9/2014	7:35 AM	N			23.5	95.3	8.05	67.1					50.4	
P020	PRESUMPCOT RIVER - R24 - VRMP	8/23/2014	7:30 AM	N			21.7	94.3	8.33	56.6					34.1	
P030	PRESUMPCOT RIVER - R47 - VRMP	5/17/2014	6:50 AM	N			15.3	94.6	9.47	88.4					178.9	
P030	PRESUMPCOT RIVER - R47 - VRMP	5/31/2014	6:45 AM	N			14.3	98.4	10.03	88.7					24.6	
P030	PRESUMPCOT RIVER - R47 - VRMP	6/14/2014	6:40 AM	N			17.3	97.5	9.38	89.4					2419.17	
P030	PRESUMPCOT RIVER - R47 - VRMP	6/28/2014	6:40 AM	N			20.6	96.1	8.63	72.1					65.7	
P030	PRESUMPCOT RIVER - R47 - VRMP	7/12/2014	7:05 AM	N			24.3	94.5	7.99						86	
P030	PRESUMPCOT RIVER - R47 - VRMP	7/26/2014	7:55 AM	N			24.7	91.5	7.55	64.1					32.7	
P030		8/9/2014	7:55 AM	N			23.7	96.5	8.21	64.1					42.2	
P030	PRESUMPCOT RIVER - R47 - VRMP	8/23/2014	7:50 AM	N			21.7	94.4	8.23	54.6					47.2	
TA010	TANNERY BROOK - RLTTN06 - VRMP	5/17/2014	6:58 AM	N			15	89.5	9.01	333					478.6	
TA010	TANNERY BROOK - RLTTN06 - VRMP	5/31/2014	7:20 AM	N			13	93.7	9.86	322					101.4	
TA010	TANNERY BROOK - RLTTN06 - VRMP	6/14/2014	7:12 AM	N			13.8	89.3	9.24	186					2419.6	
TA010	TANNERY BROOK - RLTTN06 - VRMP	6/28/2014	7:20 AM	N			15.9	96.4	9.54	307					224.7	
TA010	TANNERY BROOK - RLTTN06 - VRMP	7/12/2014	7:15 AM	N			17.1	87.1	8.39	39.5					96	

Organization Site Code	VRMP Site ID	Date	Time	** Sample Type Qualifier	* Sample Depth	Depth Unit	Water Temp (DEG C)	** D.O. Sat. (%)	** D.O. (MG/L)	** Spec. Cond. (US/CM)	Salinity (PPTH)	Turbidity (NTU)	Total Diss. Solids (MG/L)	** TSS (MG/L)	E Coli Bacteria (MPN/100ML)	Enterococci (MP)
TA010	TANNERY BROOK - RLTTN06 - VRMP	7/26/2014	7:19 AM	N			18	83.7	7.93	370					228.2	
TA010	TANNERY BROOK - RLTTN06 - VRMP	8/9/2014	7:49 AM	N			16.9	89.7	8.69	290					1986.28	
TA010	TANNERY BROOK - RLTTN06 - VRMP	8/9/2014	7:49 AM	D			16.9	90	8.72	290					1299.65	
TA010	TANNERY BROOK - RLTTN06 - VRMP	8/23/2014	7:22 AM	N			15.2	89.2	8.95	353					74.8	

**Little River - Presumpscot River Watch : Non-Approved Sites**

L010	LITTLE RIVER - RLT08 - PRW	5/17/2014	7:35 AM	N			16.7	90.8	9.06	163					1119.9	
L010	LITTLE RIVER - RLT08 - PRW	5/31/2014	6:30 AM	N			13.1	93.3	9.81	139					114.5	
L010	LITTLE RIVER - RLT08 - PRW	6/14/2014	6:25 AM	N			13.6	93.3	9.7	123					2419.6	
L010	LITTLE RIVER - RLT08 - PRW	6/28/2014	6:33 AM	N			18.1	93.8	8.87	161					156.5	
L010	LITTLE RIVER - RLT08 - PRW	6/28/2014	6:33 AM	D			18.1	93.3	8.82	161					125.9	
L010	LITTLE RIVER - RLT08 - PRW	7/12/2014	6:34 AM	N			19.2	83.3	7.69	175					166.9	
L010	LITTLE RIVER - RLT08 - PRW	7/26/2014	6:35 AM	N			19.4	85	7.82	177					150	
L010	LITTLE RIVER - RLT08 - PRW	8/9/2014	6:58 AM	N			18.5	91.8	8.6	160					275.5	
L010	LITTLE RIVER - RLT08 - PRW	8/9/2014	6:58 AM	D			18.5	91.7	8.59	166					178.9	
L010	LITTLE RIVER - RLT08 - PRW	8/23/2014	6:42 AM	N			16.2	88.2	8.67	193					129.1	

Appendix A-2. 2014 observational data and quality assurance/quality control (QA/QC) notes for "approved" and "non-approved" sites.

\*\* "N" = normal environmental sample; "D" = field duplicate; "L" = lab duplicate

Refer to Appendix A-1 for water quality data

Organizational Site Code	VRMP Site ID	Date	Time	** Sample Type Qualifier	Flow	Stage	Air Temp (°C)	Sample Location	Current Weather	Air Condition	Past 24HR Weather	Habitat	Water Appearance	Comments
<b>Presumpscot River - Presumpscot River Watch: Approved Sites</b>														
BB010	BAKER BROOK - RPLBK17 - VRMP	5/31/2014	8:10 AM	N	BASEFLOW	MEDIUM	11.11	WADING	CLOUDY	CALM	CLOUDY, LIGHT RAIN	RUN	CLEAR	WADEABLE/1.5 FT BELOW SURFACE
BB010	BAKER BROOK - RPLBK17 - VRMP	6/14/2014	7:06 AM	N	STORMFLOW	MEDIUM	14.44	WADING	LIGHT RAIN	CALM	HEAVY RAIN	RUN	FOAMY	WADEABLE/1.5 FT BELOW SURFACE
BB010	BAKER BROOK - RPLBK17 - VRMP	6/28/2014	6:22 AM	N	BASEFLOW	MEDIUM	11.67	WADING	CLEAR	CALM	CLEAR	RUN	MEDIUM STAINED	WADEABLE/1.5 FT BELOW SURFACE
BB010	BAKER BROOK - RPLBK17 - VRMP	6/28/2014	6:22 AM	D				WADING						WADEABLE/1.5 FT BELOW SURFACE
BB010	BAKER BROOK - RPLBK17 - VRMP	7/12/2014	6:15 AM	N	BASEFLOW	MEDIUM	13.89	WADING	CLEAR		CLEAR	RUN	MEDIUM STAINED	WADEABLE/1.5 FT BELOW SURFACE
BB010	BAKER BROOK - RPLBK17 - VRMP	7/26/2014	6:17 AM	N	BASEFLOW	MEDIUM	15.56	WADING	CLEAR	CALM	CLEAR	RUN	MEDIUM STAINED	WADEABLE/1.5 FT BELOW SURFACE
BB010	BAKER BROOK - RPLBK17 - VRMP	8/9/2014	6:40 AM	N	BASEFLOW	LOW	15.56	WADING	CLEAR	CALM	CLEAR	RIFFLE	MEDIUM STAINED	WADEABLE/MID-DEPTH
BB010	BAKER BROOK - RPLBK17 - VRMP	8/23/2014	7:00 AM	N	BASEFLOW	LOW	15.56	BANK	CLOUDY	CALM	CLOUDY	RIFFLE	MEDIUM STAINED	NON-WADEABLE/MID-DEPTH
BB010	BAKER BROOK - RPLBK17 - VRMP	8/23/2014	7:00 AM	D				BANK						NON-WADEABLE/MID-DEPTH
BL010	BLACK BROOK- RBK05 - VRMP	5/17/2014	7:40 AM	N	STORMFLOW	HIGH	13.89	WADING	CLOUDY, LIGHT RAIN	BREEZE	FOGGY, SHOWERS	RUN	TURBID	WADEABLE/MID-DEPTH
BL010	BLACK BROOK- RBK05 - VRMP	5/31/2014	8:52 AM	N	STORMFLOW	LOW	12.78	WADING	CLOUDY	CALM	LIGHT RAIN	RUN	CLEAR	WADEABLE/MID-DEPTH
BL010	BLACK BROOK- RBK05 - VRMP	6/14/2014	7:50 AM	N	STORMFLOW	HIGH	15	WADING	CLOUDY	CALM	CLOUDY, FOGGY, HEAVY RAIN, SHOWERS	RUN	TURBID	CONCENTRATION IS ACTUALLY >2419.6. VALUE FOR USE IN GEOMETRIC MEAN., WADEABLE/MID-DEPTH
BL010	BLACK BROOK- RBK05 - VRMP	6/28/2014	8:30 AM	N	BASEFLOW	LOW	11.11	WADING	CLEAR	CALM	CLEAR	RIFFLE	CLEAR	WADEABLE/MID-DEPTH
BL010	BLACK BROOK- RBK05 - VRMP	7/12/2014	8:10 AM	N	BASEFLOW	LOW	21.11	WADING	CLEAR	CALM	CLEAR, PARTLY CLOUDY	RIFFLE	CLEAR	NON-WADEABLE/MID-DEPTH
BL010	BLACK BROOK- RBK05 - VRMP	7/26/2014	8:20 AM	N	BASEFLOW	MEDIUM	17.78	WADING	PARTLY CLOUDY	CALM	CLEAR, CLOUDY, PARTLY CLOUDY	RUN	MILKY	WADEABLE/MID-DEPTH
BL010	BLACK BROOK- RBK05 - VRMP	8/9/2014	8:15 AM	N	BASEFLOW	LOW	16.67	WADING	CLEAR		CLEAR, PARTLY CLOUDY	RIFFLE	CLEAR	WADEABLE/1.5 FT BELOW SURFACE
BL010	BLACK BROOK- RBK05 - VRMP	8/9/2014	8:15 AM	D				WADING						WADEABLE/1.5 FT BELOW SURFACE
BL010	BLACK BROOK- RBK05 - VRMP	8/23/2014	8:25 AM	N	BASEFLOW	LOW	15.56	WADING	MOSTLY CLOUDY		MOSTLY CLOUDY	RIFFLE	CLEAR	WADEABLE/MID-DEPTH
CW010	COLLEY WRIGHT BROOK - RCW10 - VRMP	5/17/2014	7:23 AM	N	STORMFLOW	HIGH	13.89	WADING	CLOUDY, LIGHT RAIN	BREEZE	FOGGY, SHOWERS	RUN	TURBID	CONCENTRATION IS ACTUALLY >2419.6. VALUE FOR USE IN GEOMETRIC MEAN., WADEABLE/MID-DEPTH
CW010	COLLEY WRIGHT BROOK - RCW10 - VRMP	5/31/2014	8:40 AM	N	STORMFLOW	MEDIUM	12.78	WADING	CLOUDY	CALM	LIGHT RAIN	RUN	TURBID	WADEABLE/MID-DEPTH
CW010	COLLEY WRIGHT BROOK - RCW10 - VRMP	6/14/2014	7:35 AM	N	STORMFLOW	HIGH	15	WADING	CLOUDY		CLOUDY, HEAVY RAIN	RUN	TURBID	CONCENTRATION IS ACTUALLY >2419.6. VALUE FOR USE IN GEOMETRIC MEAN., WADEABLE/1.5 FT BELOW SURFACE
CW010	COLLEY WRIGHT BROOK - RCW10 - VRMP	6/28/2014	8:15 AM	N	BASEFLOW	MEDIUM	11.11	WADING	CLEAR	CALM	CLEAR	RIFFLE	MEDIUM STAINED	WADEABLE/1.5 FT BELOW SURFACE

Organizational Site Code	VRMP Site ID	Date	Time	** Sample Type Qualifier	Flow	Stage	Air Temp (°C)	Sample Location	Current Weather	Air Condition	Past 24HR Weather	Habitat	Water Appearance	Comments
CW010	COLLEY WRIGHT BROOK - RCW10 - VRMP	7/12/2014	7:50 AM	N	BASEFLOW	LOW	21.11	WADING	CLEAR	CALM	CLEAR, PARTLY CLOUDY	RIFFLE	MEDIUM STAINED	WADEABLE/1.5 FT BELOW SURFACE
CW010	COLLEY WRIGHT BROOK - RCW10 - VRMP	7/26/2014	8:05 AM	N	BASEFLOW	HIGH	17.78	WADING	PARTLY CLOUDY	CALM	CLEAR, CLOUDY, PARTLY CLOUDY	RUN	TURBID	WADEABLE/1.5 FT BELOW SURFACE
CW010	COLLEY WRIGHT BROOK - RCW10 - VRMP	8/9/2014	8:00 AM	N	BASEFLOW	HIGH	16.67	WADING	CLEAR		CLEAR, PARTLY CLOUDY	RIFFLE	OPAQUE	WADEABLE/MID-DEPTH
CW010	COLLEY WRIGHT BROOK - RCW10 - VRMP	8/9/2014	8:00 AM	D				WADING						WADEABLE/MID-DEPTH
CW010	COLLEY WRIGHT BROOK - RCW10 - VRMP	8/23/2014	8:10 AM	N	BASEFLOW	HIGH	15.56	WADING	MOSTLY CLOUDY		MOSTLY CLOUDY	RIFFLE	DARKLY STAINED	WADEABLE/1.5 FT BELOW SURFACE
CW020	COLLEY WRIGHT BROOK - RCW28 - VRMP	5/17/2014	7:00 AM	N	STORMFLOW	HIGH	13.89	WADING	CLOUDY, LIGHT RAIN	BREEZE	FOGGY, SHOWERS	RIFFLE	TURBID	WADEABLE/MID-DEPTH
CW020	COLLEY WRIGHT BROOK - RCW28 - VRMP	5/31/2014	8:14 AM	N	STORMFLOW	MEDIUM	12.78	WADING	CLOUDY	CALM	LIGHT RAIN	RIFFLE	MEDIUM STAINED	WADEABLE/MID-DEPTH
CW020	COLLEY WRIGHT BROOK - RCW28 - VRMP	6/14/2014	7:20 AM	N	STORMFLOW	HIGH	15	WADING	CLOUDY	CALM	CLOUDY, FOGGY, HEAVY RAIN, SHOWERS	RUN	TURBID	CONCENTRATION IS ACTUALLY >2419.6. VALUE FOR USE IN GEOMETRIC MEAN., WADEABLE/1.5 FT BELOW SURFACE
CW020	COLLEY WRIGHT BROOK - RCW28 - VRMP	6/28/2014	7:40 AM	N	BASEFLOW	MEDIUM	11.11	WADING	CLEAR	CALM	CLEAR	RIFFLE	MEDIUM STAINED	WADEABLE/MID-DEPTH ZERO D.O. CHECK=0.06 MG/L
CW020	COLLEY WRIGHT BROOK - RCW28 - VRMP	6/28/2014	7:40 AM	D				WADING						WADEABLE/MID-DEPTH ZERO D.O. CHECK=0.06 MG/L
CW020	COLLEY WRIGHT BROOK - RCW28 - VRMP	7/12/2014	7:25 AM	N	BASEFLOW	LOW	21.11	WADING	CLEAR	CALM	CLEAR, PARTLY CLOUDY	RIFFLE	CLEAR	WADEABLE/1.5 FT BELOW SURFACE
CW020	COLLEY WRIGHT BROOK - RCW28 - VRMP	7/26/2014	7:40 AM	N	BASEFLOW	MEDIUM	17.78	WADING	PARTLY CLOUDY	CALM	CLEAR, CLOUDY, PARTLY CLOUDY	RUN	OPAQUE	WADEABLE/MID-DEPTH
CW020	COLLEY WRIGHT BROOK - RCW28 - VRMP	8/9/2014	7:45 AM	N	BASEFLOW	MEDIUM	16.67	WADING	CLEAR		CLEAR, PARTLY CLOUDY	RIFFLE	OPAQUE	WADEABLE/1.5 FT BELOW SURFACE
CW020	COLLEY WRIGHT BROOK - RCW28 - VRMP	8/9/2014	7:45 AM	D				WADING						WADEABLE/1.5 FT BELOW SURFACE
CW020	COLLEY WRIGHT BROOK - RCW28 - VRMP	8/23/2014	7:50 AM	N	BASEFLOW	LOW	15.56	WADING	MOSTLY CLOUDY		MOSTLY CLOUDY	RIFFLE	CLEAR	WADEABLE/1.5 FT BELOW SURFACE
DB010	DITCH BROOK - RPL00 - VRMP	5/17/2014	6:33 AM	N	STORMFLOW	MEDIUM	14.44	BANK	CLOUDY, LIGHT RAIN	BREEZE	CLOUDY, LIGHT RAIN	RIFFLE	CLEAR	0.5" RAIN LAST NIGHT WADEABLE/MID-DEPTH
DB010	DITCH BROOK - RPL00 - VRMP	5/31/2014	6:23 AM	N	BASEFLOW	MEDIUM	10.56	BANK	CLOUDY, FOGGY	CALM	CLOUDY, LIGHT RAIN	RIFFLE	MILKY	WADEABLE/MID-DEPTH
DB010	DITCH BROOK - RPL00 - VRMP	6/14/2014	6:23 AM	N	STORMFLOW	HIGH	13.33	BANK	MOSTLY CLOUDY	CALM	HEAVY RAIN, LIGHT RAIN	RIFFLE	CLEAR	1.25" RAIN ON FRIDAY (6/13/14) WADEABLE/MID-DEPTH
DB010	DITCH BROOK - RPL00 - VRMP	6/28/2014	6:25 AM	N	STORMFLOW	LOW	11.11	BANK	CLEAR	CALM	CLEAR, CLOUDY	RIFFLE	CLEAR	WADEABLE/MID-DEPTH
DB010	DITCH BROOK - RPL00 - VRMP	6/28/2014	6:25 AM	D				BANK						WADEABLE/MID-DEPTH
DB010	DITCH BROOK - RPL00 - VRMP	7/12/2014	6:08 AM	N	STORMFLOW	HIGH	13.33	BANK	CLEAR		CLEAR	RIFFLE	MILKY	WADEABLE/MID-DEPTH

Organizati on Site Code	VRMP Site ID	Date	Time	** Sample Type Qualifier	Flow	Stage	Air Temp (°C)	Sample Location	Current Weather	Air Condition	Past 24HR Weather	Habitat	Water Appearance	Comments
DB010	DITCH BROOK - RPL00 - VRMP	7/26/2014	6:30 AM	N	BASEFLOW	LOW	16.67	BANK	PARTLY CLOUDY	CALM	PARTLY CLOUDY	RIFFLE	CLEAR	WADEABLE/MID-DEPTH
DB010	DITCH BROOK - RPL00 - VRMP	8/9/2014	6:35 AM	N	BASEFLOW	HIGH	15	BANK	CLEAR, CLOUDY	CALM	CLEAR, LIGHT RAIN	RIFFLE	MILKY	WADEABLE/MID-DEPTH
DB010	DITCH BROOK - RPL00 - VRMP	8/23/2014	6:35 AM	N	BASEFLOW	HIGH	15	WADING	CLOUDY	CALM	CLOUDY	RIFFLE	CLEAR	WADEABLE/MID-DEPTH
DG010	DOUGLAS BROOK - RLTNBDG20 - VRMP	5/17/2014	7:22 AM	N	STORMFLOW	MEDIUM	13.89	BANK	HEAVY RAIN, LIGHT RAIN	BREEZE	HEAVY RAIN, LIGHT RAIN, PARTLY CLOUDY, SHOWERS	RUN	CLEAR	DUPLICATE TAKEN AT 7:45 BY LANCE GURNEY AND DAVID KIRSTEIN WADEABLE/MID-DEPTH
DG010	DOUGLAS BROOK - RLTNBDG20 - VRMP	5/17/2014	7:22 AM	D				BANK						DUPLICATE TAKEN AT 7:45 BY LANCE GURNEY AND DAVID KIRSTEIN WADEABLE/MID-DEPTH
DG010	DOUGLAS BROOK - RLTNBDG20 - VRMP	5/31/2014	6:52 AM	N	BASEFLOW	MEDIUM	10	WADING	PARTLY CLOUDY		CLEAR, CLOUDY, LIGHT RAIN	RIFFLE	CLEAR	WADEABLE/MID-DEPTH
DG010	DOUGLAS BROOK - RLTNBDG20 - VRMP	6/14/2014	6:45 AM	N	STORMFLOW	HIGH	15	WADING	CLOUDY	CALM	CLOUDY, HEAVY RAIN, LIGHT RAIN	RIFFLE	MEDIUM STAINED	CONCENTRATION IS ACTUALLY >2419.6. VALUE FOR USE IN GEOMETRIC MEAN., WADEABLE/MID-DEPTH
DG010	DOUGLAS BROOK - RLTNBDG20 - VRMP	6/28/2014	6:58 AM	N	BASEFLOW	LOW	11.11	WADING	CLEAR	CALM	CLEAR	RUN	CLEAR	WADEABLE/MID-DEPTH ZERO DO CHECK=0.06 MG/L
DG010	DOUGLAS BROOK - RLTNBDG20 - VRMP	7/12/2014	6:52 AM	N	BASEFLOW	LOW	13.89	WADING	CLEAR		CLEAR, PARTLY CLOUDY	RUN	CLEAR	WADEABLE/MID-DEPTH D.O METER-DID NOT RECORD TIME OF CALIBRATION. CALIBRATION VALUE OK.
DG010	DOUGLAS BROOK - RLTNBDG20 - VRMP	7/26/2014	6:53 AM	N	BASEFLOW	LOW	14.44	WADING	CLEAR	CALM	CLEAR	RUN	MEDIUM STAINED	WADEABLE/1.5 FT BELOW SURFACE
DG010	DOUGLAS BROOK - RLTNBDG20 - VRMP	8/9/2014	7:22 AM	N	BASEFLOW	LOW	15.56	WADING	CLEAR	CALM	CLEAR, PARTLY CLOUDY	RUN	CLEAR	WADEABLE/MID-DEPTH
DG010	DOUGLAS BROOK - RLTNBDG20 - VRMP	8/9/2014	7:22 AM	D				WADING						WADEABLE/MID-DEPTH
DG010	DOUGLAS BROOK - RLTNBDG20 - VRMP	8/23/2014	6:58 AM	N	BASEFLOW	LOW	15.56	WADING	MOSTLY CLOUDY	CALM	CLOUDY, PARTLY CLOUDY	RUN	CLEAR	WADEABLE/MID-DEPTH
M010	MILL BROOK - RML01 - VRMP	5/17/2014	7:00 AM	N	STORMFLOW	HIGH	13.89	BANK	HEAVY RAIN	STRONG WIND	FOGGY, HEAVY RAIN, PARTLY CLOUDY	RUN	TURBID	CONCENTRATION IS ACTUALLY >2419.6. VALUE FOR USE IN GEOMETRIC MEAN., WADEABLE/MID-DEPTH
M010	MILL BROOK - RML01 - VRMP	5/31/2014	6:55 AM	N	BASEFLOW	MEDIUM	10	BANK	CLOUDY	CALM	HEAVY RAIN, PARTLY CLOUDY, SHOWERS	RUN	MEDIUM STAINED	NON-WADEABLE/MID-DEPTH
M010	MILL BROOK - RML01 - VRMP	6/14/2014	6:55 AM	N	STORMFLOW	HIGH	12.78	BANK	CLOUDY	CALM	CLOUDY, FOGGY, HEAVY RAIN, SHOWERS	RUN	TURBID	CONCENTRATION IS ACTUALLY >2419.6. VALUE FOR USE IN GEOMETRIC MEAN., NON-WADEABLE/MID-DEPTH
M010	MILL BROOK - RML01 - VRMP	6/28/2014	6:55 AM	N	BASEFLOW	MEDIUM	10	BANK	CLEAR		CLEAR, PARTLY CLOUDY	RUN	TURBID	NON-WADEABLE/MID-DEPTH D.O.METER-DID NOT RECORD TIME OF CALIBRATION. CALIBRATION VALUE OK.
M010	MILL BROOK - RML01 - VRMP	7/12/2014	7:15 AM	N	BASEFLOW	LOW	15.56	BANK	CLEAR	CALM	CLEAR	RUN	TURBID	NON-WADEABLE/MID-DEPTH
M010	MILL BROOK - RML01 - VRMP	7/26/2014	8:05 AM	N	BASEFLOW	LOW	16.11	WADING	CLEAR	BREEZE	CLEAR	RUN	MILKY	WADEABLE/MID-DEPTH
M010	MILL BROOK - RML01 - VRMP	8/9/2014	8:10 AM	N	BASEFLOW	LOW	16.67	WADING	CLEAR	CALM	CLEAR, PARTLY CLOUDY	RUN	MILKY	WADEABLE/MID-DEPTH
M010	MILL BROOK - RML01 - VRMP	8/23/2014	8:00 AM	N	BASEFLOW	HIGH	15.56	WADING	CLOUDY	CALM	CLOUDY, MOSTLY CLOUDY, PARTLY CLOUDY	RUN	MILKY	WADEABLE/MID-DEPTH

Organizati on Site Code	VRMP Site ID	Date	Time	** Sample Type Qualifier	Flow	Stage	Air Temp (°C)	Sample Location	Current Weather	Air Condition	Past 24HR Weather	Habitat	Water Appearance	Comments
M030	MILL BROOK - RML63 - VRMP	5/17/2014	8:45 AM	N	STORMFLOW	HIGH	13.33	BANK	HEAVY RAIN	BREEZE	LIGHT RAIN	RIFFLE	TURBID	NON-WADEABLE/MID-DEPTH NO VALUE FOR D.O. IN MG/L.
M030	MILL BROOK - RML63 - VRMP	5/31/2014	8:10 AM	N	BASEFLOW	MEDIUM	11.67	BANK	CLOUDY		CLOUDY, LIGHT RAIN	RUN	CLEAR	NON-WADEABLE/MID-DEPTH NO VALUE FOR D.O. IN % SATURATION.
M030	MILL BROOK - RML63 - VRMP	6/14/2014	8:00 AM	N	STORMFLOW	HIGH	15	BANK	CLOUDY		HEAVY RAIN	RUN	CLEAR	NON-WADEABLE/MID-DEPTH
M030	MILL BROOK - RML63 - VRMP	6/28/2014	8:50 AM	N	BASEFLOW	MEDIUM	20.56	BANK	CLEAR		CLEAR	RUN	CLEAR	NON-WADEABLE/MID-DEPTH
M030	MILL BROOK - RML63 - VRMP	7/12/2014	8:20 AM	N	BASEFLOW	MEDIUM	21.11	BANK	CLEAR	CALM	CLEAR	RUN	CLEAR	NON-WADEABLE/MID-DEPTH
M030	MILL BROOK - RML63 - VRMP	7/12/2014	8:20 AM	D				BANK						NON-WADEABLE/MID-DEPTH
M030	MILL BROOK - RML63 - VRMP	7/26/2014	8:15 AM	N	BASEFLOW	MEDIUM	18.89	BANK	PARTLY CLOUDY		PARTLY CLOUDY	RUN	GREEN - PHYTOPLANKTON BLOOM	NON-WADEABLE/MID-DEPTH
M030	MILL BROOK - RML63 - VRMP	8/9/2014	8:50 AM	N	BASEFLOW	MEDIUM	22.22	BANK	CLEAR	CALM	CLEAR	RUN	CLEAR	NON-WADEABLE/MID-DEPTH
M030	MILL BROOK - RML63 - VRMP	8/23/2014	8:00 AM	N	BASEFLOW	MEDIUM	17.78	BANK	CLOUDY	CALM	PARTLY CLOUDY	RUN	CLEAR	WADEABLE/MID-DEPTH
N010	NASON BROOK - RNS11 - VRMP	5/17/2014	6:59 AM	N	STORMFLOW	MEDIUM	14.44	BANK	CLOUDY, LIGHT RAIN	BREEZE	CLOUDY, LIGHT RAIN	RUN	MEDIUM STAINED	0.5" RAIN LAST NIGHT WADEABLE/MID-DEPTH
N010	NASON BROOK - RNS11 - VRMP	5/31/2014	6:59 AM	N	BASEFLOW	LOW	10.56	CULVERT	CLOUDY, FOGGY	CALM	CLOUDY, LIGHT RAIN	RUN	MEDIUM STAINED	WADEABLE/MID-DEPTH
N010	NASON BROOK - RNS11 - VRMP	6/14/2014	6:44 AM	N	STORMFLOW	HIGH	13.33	CULVERT	MOSTLY CLOUDY	CALM	HEAVY RAIN, LIGHT RAIN	RUN	CLEAR	1.25" RAIN ON FRIDAY (6/13/14) WADEABLE/MID-DEPTH
N010	NASON BROOK - RNS11 - VRMP	6/28/2014	6:51 AM	N	STORMFLOW	LOW	11.11	CULVERT	CLEAR		CLEAR, CLOUDY	RUN	MEDIUM STAINED	WADEABLE/MID-DEPTH
N010	NASON BROOK - RNS11 - VRMP	6/28/2014	6:51 AM	D				CULVERT						WADEABLE/MID-DEPTH
N010	NASON BROOK - RNS11 - VRMP	7/12/2014	6:33 AM	N	BASEFLOW	LOW	13.33	CULVERT	CLEAR		CLEAR	RUN	MEDIUM STAINED	WADEABLE/MID-DEPTH
N010	NASON BROOK - RNS11 - VRMP	7/26/2014	6:56 AM	N	BASEFLOW	LOW	16.67	CULVERT	PARTLY CLOUDY	CALM	PARTLY CLOUDY	RUN	MEDIUM STAINED	WADEABLE/MID-DEPTH
N010	NASON BROOK - RNS11 - VRMP	8/9/2014	6:55 AM	N	BASEFLOW	LOW	15	CULVERT	CLEAR, CLOUDY	CALM	CLEAR, LIGHT RAIN	RUN	MEDIUM STAINED	WADEABLE/MID-DEPTH
N010	NASON BROOK - RNS11 - VRMP	8/23/2014	6:50 AM	N	BASEFLOW	MEDIUM	15	CULVERT	CLOUDY	CALM	CLOUDY	RIFFLE	DARKLY STAINED	WADEABLE/MID-DEPTH
OB010	OTTER BROOK - ROT06 - VRMP	5/17/2014	5:56 AM	N	STORMFLOW	MEDIUM	14.44	BANK	CLOUDY, LIGHT RAIN	BREEZE	CLOUDY, LIGHT RAIN	RUN	MEDIUM STAINED	0.5" RAIN LAST NIGHT WADEABLE/MID-DEPTH, CONCENTRATION IS ACTUALLY >2419.6. VALUE FOR USE IN GEOMETRIC MEAN.
OB010	OTTER BROOK - ROT06 - VRMP	5/31/2014	6:05 AM	N	BASEFLOW	MEDIUM	10.56	CULVERT	CLOUDY, FOGGY	CALM	CLOUDY, LIGHT RAIN	RUN	MEDIUM STAINED	WADEABLE/MID-DEPTH
OB010	OTTER BROOK - ROT06 - VRMP	6/14/2014	5:53 AM	N	STORMFLOW	HIGH	13.33	CULVERT	MOSTLY CLOUDY	CALM	HEAVY RAIN, LIGHT RAIN	RUN	MEDIUM STAINED	1.25" RAIN ON FRIDAY (6/13/14) NON-WADEABLE/MID-DEPTH, CONCENTRATION IS ACTUALLY >2419.6. VALUE FOR USE IN GEOMETRIC MEAN.
OB010	OTTER BROOK - ROT06 - VRMP	6/28/2014	5:40 AM	N	STORMFLOW	MEDIUM	11.11	CULVERT	CLEAR	CALM	CLEAR	RUN	CLEAR	TREE CUTTING-LOSS OF CANOPY WADEABLE/MID-DEPTH ZERO DO CHECK=0.64 MG/L
OB010	OTTER BROOK - ROT06 - VRMP	6/28/2014	5:40 AM	D				CULVERT						TREE CUTTING-LOSS OF CANOPY WADEABLE/MID-DEPTH ZERO DO CHECK=0.64 MG/L
OB010	OTTER BROOK - ROT06 - VRMP	7/12/2014	5:35 AM	N	BASEFLOW	MEDIUM	13.33	CULVERT	CLEAR		CLEAR	RUN	CLEAR	WADEABLE/MID-DEPTH

Organizati on Site Code	VRMP Site ID	Date	Time	** Sample Type Qualifier	Flow	Stage	Air Temp (°C)	Sample Location	Current Weather	Air Condition	Past 24HR Weather	Habitat	Water Appearance	Comments
OB010	OTTER BROOK - ROT06 - VRMP	7/26/2014	5:50 AM	N	BASEFLOW	LOW	16.67	CULVERT	PARTLY CLOUDY	CALM	PARTLY CLOUDY	RUN	CLEAR	WADEABLE/MID-DEPTH
OB010	OTTER BROOK - ROT06 - VRMP	8/9/2014	6:00 AM	N	BASEFLOW	MEDIUM	15	CULVERT	CLEAR, CLOUDY	CALM	CLEAR, LIGHT RAIN	RUN	CLEAR	WADEABLE/MID-DEPTH
OB010	OTTER BROOK - ROT06 - VRMP	8/23/2014	6:03 AM	N	BASEFLOW	MEDIUM	15	CULVERT	CLOUDY	CALM	CLOUDY	RUN	CLEAR	WADEABLE/MID-DEPTH
P020	PRESUMPCOT RIVER - R24 - VRMP	5/17/2014	6:30 AM	N	STORMFLOW	MEDIUM	13.89	BANK	HEAVY RAIN	STRONG WIND	FOGGY, HEAVY RAIN, PARTLY CLOUDY	RUN	TURBID	WADEABLE/1.5 FT BELOW SURFACE SAMPLE LOCATION FROM BANK. PREVIOUSLY SAMPLED FROM BRIDGE.
P020	PRESUMPCOT RIVER - R24 - VRMP	5/31/2014	6:30 AM	N	BASEFLOW	MEDIUM	10	BANK	CLOUDY	CALM	HEAVY RAIN, PARTLY CLOUDY, SHOWERS	RUN	MEDIUM STAINED	NON-WADEABLE/MID-DEPTH SAMPLE LOCATION FROM BANK. PREVIOUSLY SAMPLED FROM BRIDGE.
P020	PRESUMPCOT RIVER - R24 - VRMP	6/14/2014	6:20 AM	N	STORMFLOW	HIGH	12.78	BANK	CLOUDY	CALM	CLOUDY, FOGGY, HEAVY RAIN, SHOWERS	RUN	TURBID	NON-WADEABLE/MID-DEPTH SAMPLE LOCATION FROM BANK. PREVIOUSLY SAMPLED FROM BRIDGE.
P020	PRESUMPCOT RIVER - R24 - VRMP	6/28/2014	6:20 AM	N	BASEFLOW	MEDIUM	10	BANK	CLEAR	CALM	CLEAR, PARTLY CLOUDY	RUN	MEDIUM STAINED	NON-WADEABLE/MID-DEPTH D.O. METER- DID NOT RECORD TIME OF CALIBRATION. CALIBRATION VALUE OK. SAMPLE LOCATION FROM BANK-PREVIOUSLY SAMPLED FROM BRIDGE.
P020	PRESUMPCOT RIVER - R24 - VRMP	6/28/2014	6:20 AM	D				BANK						NON-WADEABLE/MID-DEPTH D.O. METER- DID NOT RECORD TIME OF CALIBRATION. CALIBRATION VALUE OK. SAMPLE LOCATION FROM BANK-PREVIOUSLY SAMPLED FROM BRIDGE.
P020	PRESUMPCOT RIVER - R24 - VRMP	7/12/2014	6:50 AM	N	BASEFLOW	LOW	15.56	BANK	CLEAR	CALM	CLEAR	RUN	CLEAR	NON-WADEABLE/MID-DEPTH SAMPLE LOCATION FROM BANK. PREVIOUSLY SAMPLED FROM BRIDGE.
P020	PRESUMPCOT RIVER - R24 - VRMP	7/26/2014	7:25 AM	N	BASEFLOW	MEDIUM	16.11	WADING	CLEAR	BREEZE	CLEAR	RUN	MILKY	WADEABLE/MID-DEPTH
P020	PRESUMPCOT RIVER - R24 - VRMP	8/9/2014	7:35 AM	N	BASEFLOW	MEDIUM	16.67	WADING	CLEAR	CALM	CLEAR, MOSTLY CLOUDY	RUN	MILKY	WADEABLE/MID-DEPTH
P020	PRESUMPCOT RIVER - R24 - VRMP	8/23/2014	7:30 AM	N	BASEFLOW	HIGH	15.56	WADING	CLOUDY	CALM	CLOUDY, MOSTLY CLOUDY, PARTLY CLOUDY	RUN	MILKY	WADEABLE/MID-DEPTH
P030	PRESUMPCOT RIVER - R47 - VRMP	5/17/2014	6:50 AM	N	STORMFLOW	MEDIUM	13.89	BANK	HEAVY RAIN	STRONG WIND	FOGGY, HEAVY RAIN, PARTLY CLOUDY	RUN	TURBID	WADEABLE/1.5 FT BELOW SURFACE
P030	PRESUMPCOT RIVER - R47 - VRMP	5/31/2014	6:45 AM	N	BASEFLOW	MEDIUM	10	BANK	CLOUDY	CALM	HEAVY RAIN, PARTLY CLOUDY, SHOWERS	RUN	MEDIUM STAINED	NON-WADEABLE/MID-DEPTH
P030	PRESUMPCOT RIVER - R47 - VRMP	6/14/2014	6:40 AM	N	STORMFLOW	HIGH	12.78	BANK	CLOUDY	CALM	CLOUDY, FOGGY, HEAVY RAIN, SHOWERS	RUN	TURBID	NON-WADEABLE/MID-DEPTH
P030	PRESUMPCOT RIVER - R47 - VRMP	6/28/2014	6:40 AM	N	BASEFLOW	MEDIUM	10	BANK	CLEAR	CALM	CLEAR, PARTLY CLOUDY	RUN	MEDIUM STAINED	NON-WADEABLE/MID-DEPTH D.O.METER- DID NOT RECORD TIME OF CALIBRATION. CALIBRATION VALUE OK.
P030	PRESUMPCOT RIVER - R47 - VRMP	7/12/2014	7:05 AM	N	BASEFLOW	LOW	15.56	BANK	CLEAR	CALM	CLEAR	RUN	CLEAR	SMALL PASSEL OF DUCKS AT SITE NON- WADEABLE/MID-DEPTH
P030	PRESUMPCOT RIVER - R47 - VRMP	7/26/2014	7:55 AM	N	BASEFLOW	MEDIUM	16.11	WADING	CLEAR	BREEZE	CLEAR	RUN	MILKY	WADEABLE/MID-DEPTH
P030	PRESUMPCOT RIVER - R47 - VRMP	8/9/2014	7:55 AM	N	BASEFLOW	MEDIUM	16.67	WADING	CLEAR	CALM	CLEAR, PARTLY CLOUDY	RUN	MILKY	WADEABLE/MID-DEPTH

Organizati on Site Code	VRMP Site ID	Date	Time	** Sample Type Qualifier	Flow	Stage	Air Temp (°C)	Sample Location	Current Weather	Air Condition	Past 24HR Weather	Habitat	Water Appearance	Comments
P030	PRESUMPCOT RIVER - R47 - VRMP	8/23/2014	7:50 AM	N	BASEFLOW	HIGH	15.56	WADING	CLOUDY	CALM	CLOUDY, MOSTLY CLOUDY, PARTLY CLOUDY	RUN	MILKY	WADEABLE/MID-DEPTH
P135	PRESUMPCOT RIVER - R157 - VRMP	5/31/2014	7:25 AM	N	BASEFLOW	LOW	10.56	WADING	CLOUDY, FOGGY	CALM	CLOUDY, LIGHT RAIN	RIFFLE	MEDIUM STAINED	WADEABLE/MID-DEPTH
P135	PRESUMPCOT RIVER - R157 - VRMP	6/14/2014	8:45 AM	N	BASEFLOW	MEDIUM	17.7	WADING	CLOUDY	CALM	CLOUDY, HEAVY RAIN	RUN	CLEAR	CONCENTRATION IS ACTUALLY >2419.6. VALUE FOR USE IN GEOMETRIC MEAN., WADEABLE/1.5 FT BELOW SURFACE
P135	PRESUMPCOT RIVER - R157 - VRMP	6/28/2014	7:25 AM	N	BASEFLOW	MEDIUM	20	WADING	CLEAR	CALM	CLEAR	RUN	CLEAR	WADEABLE/1.5 FT BELOW SURFACE
P135	PRESUMPCOT RIVER - R157 - VRMP	7/12/2014	8:35 AM	N	BASEFLOW	MEDIUM	22	WADING	CLEAR	CALM	CLEAR	RUN	CLEAR	WADEABLE/1.5 FT BELOW SURFACE
P135	PRESUMPCOT RIVER - R157 - VRMP	7/26/2014	6:44 AM	N	BASEFLOW	LOW	15.56	WADING	CLEAR	CALM	CLEAR	RUN	CLEAR	WADEABLE/1.5 FT BELOW SURFACE
P135	PRESUMPCOT RIVER - R157 - VRMP	8/9/2014	7:35 AM	N	BASEFLOW	MEDIUM	20.5	WADING	CLEAR	CALM	CLEAR	RUN	CLEAR	WADEABLE/1.5 FT BELOW SURFACE
P135	PRESUMPCOT RIVER - R157 - VRMP	8/9/2014	7:35 AM	D				WADING						WADEABLE/1.5 FT BELOW SURFACE
P135	PRESUMPCOT RIVER - R157 - VRMP	8/23/2014	7:25 AM	N	BASEFLOW	MEDIUM	15.56	WADING	PARTLY CLOUDY		PARTLY CLOUDY	RUN	CLEAR	WADEABLE/1.5 FT BELOW SURFACE
P150	PRESUMPCOT RIVER - R166 - VRMP	6/14/2014	9:05 AM	N	BASEFLOW	MEDIUM	17.7	WADING	CLOUDY		CLOUDY, HEAVY RAIN	RUN	CLEAR	WADEABLE/1.5 FT BELOW SURFACE
P150	PRESUMPCOT RIVER - R166 - VRMP	6/28/2014	7:45 AM	N	BASEFLOW	MEDIUM	20	WADING	CLEAR	CALM	CLEAR	RUN	CLEAR	WADEABLE/1.5 FT BELOW SURFACE
P150	PRESUMPCOT RIVER - R166 - VRMP	7/12/2014	8:17 AM	N	BASEFLOW	MEDIUM	22	WADING	CLEAR	CALM	CLEAR	RUN	CLEAR	WADEABLE/1.5 FT BELOW SURFACE
P150	PRESUMPCOT RIVER - R166 - VRMP	7/26/2014	7:06 AM	N	BASEFLOW	LOW	15.56	WADING	CLEAR	CALM	CLEAR	RUN	CLEAR	WADEABLE/1.5 FT BELOW SURFACE
P150	PRESUMPCOT RIVER - R166 - VRMP	8/9/2014	8:00 AM	N	BASEFLOW	MEDIUM	20.5	WADING	CLEAR	CALM	CLEAR	RUN	CLEAR	WADEABLE/1.5 FT BELOW SURFACE
P150	PRESUMPCOT RIVER - R166 - VRMP	8/9/2014	8:00 AM	D				WADING						WADEABLE/1.5 FT BELOW SURFACE
P150	PRESUMPCOT RIVER - R166 - VRMP	8/23/2014	7:40 AM	N	BASEFLOW	MEDIUM	15.56	WADING	PARTLY CLOUDY		PARTLY CLOUDY	RUN	CLEAR	WADEABLE/1.5 FT BELOW SURFACE
P150	PRESUMPCOT RIVER - R166 - VRMP	8/23/2014	7:40 AM	D				WADING						WADEABLE/1.5 FT BELOW SURFACE
P160	PRESUMPCOT RIVER - R195 - VRMP	6/14/2014	9:15 AM	N	BASEFLOW	MEDIUM	17.7	WADING	CLOUDY	CALM	CLOUDY, HEAVY RAIN	RUN	CLEAR	WADEABLE/1.5 FT BELOW SURFACE
P160	PRESUMPCOT RIVER - R195 - VRMP	6/28/2014	8:05 AM	N	BASEFLOW	MEDIUM	20	WADING	CLEAR		CLEAR	RUN	CLEAR	WADEABLE/1.5 FT BELOW SURFACE
P160	PRESUMPCOT RIVER - R195 - VRMP	7/12/2014	7:53 AM	N	BASEFLOW	MEDIUM	22	BANK	CLEAR	CALM	CLEAR	RUN	CLEAR	FEW GEESE AT DUNDEE PARK WADEABLE/1.5 FT BELOW SURFACE
P160	PRESUMPCOT RIVER - R195 - VRMP	7/26/2014	7:23 AM	N	BASEFLOW	LOW	15.56	WADING	CLEAR	CALM	CLEAR	RUN	CLEAR	WADEABLE/1.5 FT BELOW SURFACE
P160	PRESUMPCOT RIVER - R195 - VRMP	8/9/2014	8:20 AM	N	BASEFLOW	MEDIUM	20.5	WADING	CLEAR	CALM	CLEAR	RUN	CLEAR	SMALL BLOBS OF ALGAE IN WATER COLUMN AT SITE WADEABLE/1.5 FT BELOW SURFACE
P160	PRESUMPCOT RIVER - R195 - VRMP	8/9/2014	8:20 AM	D				WADING						SMALL BLOBS OF ALGAE IN WATER COLUMN AT SITE WADEABLE/1.5 FT BELOW SURFACE
P160	PRESUMPCOT RIVER - R195 - VRMP	8/23/2014	8:20 AM	N	BASEFLOW	MEDIUM	15.56	WADING	PARTLY CLOUDY		PARTLY CLOUDY	RUN	CLEAR	ALGAE FROM PAST SAMPLING DATE IS MUCH LESS (HEAVY RAIN LAST WEEK). WADEABLE/1.5 FT BELOW SURFACE
P200	PRESUMPCOT RIVER - R225 - VRMP	5/31/2014	7:40 AM	N	BASEFLOW	MEDIUM	11.11	WADING	CLOUDY	CALM	CLOUDY, LIGHT RAIN	RUN	CLEAR	WADEABLE/1.5 FT BELOW SURFACE

Organizational Site Code	VRMP Site ID	Date	Time	** Sample Type Qualifier	Flow	Stage	Air Temp (°C)	Sample Location	Current Weather	Air Condition	Past 24HR Weather	Habitat	Water Appearance	Comments
P200	PRESUMPCOT RIVER - R225 - VRMP	6/14/2014	6:45 AM	N	STORMFLOW	MEDIUM	14.44	WADING	LIGHT RAIN	CALM	HEAVY RAIN	RUN	CLEAR	WADEABLE/1.5 FT BELOW SURFACE
P200	PRESUMPCOT RIVER - R225 - VRMP	6/28/2014	6:48 AM	N	BASEFLOW	MEDIUM	11.67	WADING	CLEAR	CALM	CLEAR	RUN	CLEAR	WADEABLE/1.5 FT BELOW SURFACE
P200	PRESUMPCOT RIVER - R225 - VRMP	6/28/2014	6:48 AM	D				WADING						WADEABLE/1.5 FT BELOW SURFACE
P200	PRESUMPCOT RIVER - R225 - VRMP	7/12/2014	6:25 AM	N	BASEFLOW	MEDIUM	13.89	WADING	CLEAR	CALM	CLEAR	RUN	CLEAR	WADEABLE/1.5 FT BELOW SURFACE
P200	PRESUMPCOT RIVER - R225 - VRMP	7/26/2014	6:39 AM	N	BASEFLOW	MEDIUM	15.56	WADING	CLEAR	CALM	CLEAR	RUN	CLEAR	WADEABLE/1.5 FT BELOW SURFACE
PI010	EAST BRANCH PISCATAQUA RIVER - RPSEB05 - VRMP	5/17/2014	7:55 AM	N	STORMFLOW	HIGH	13.33	BANK	HEAVY RAIN	BREEZE	LIGHT RAIN	RIFFLE	TURBID	NON-WADEABLE/MID-DEPTH NO VALUE FOR D.O. IN MG/L.
PI010	EAST BRANCH PISCATAQUA RIVER - RPSEB05 - VRMP	5/31/2014	7:35 AM	N	BASEFLOW	MEDIUM	11.67	BANK	CLOUDY		CLOUDY, LIGHT RAIN	RUN	CLEAR	NON-WADEABLE/MID-DEPTH NO VALUE FOR D.O. IN % SATURATION.
PI010	EAST BRANCH PISCATAQUA RIVER - RPSEB05 - VRMP	6/14/2014	7:30 AM	N	STORMFLOW	HIGH	15	BANK	CLOUDY		HEAVY RAIN	RUN	TURBID	CONCENTRATION IS ACTUALLY >2419.6. VALUE FOR USE IN GEOMETRIC MEAN., NON-WADEABLE/MID-DEPTH
PI010	EAST BRANCH PISCATAQUA RIVER - RPSEB05 - VRMP	6/28/2014	7:50 AM	N	BASEFLOW	MEDIUM	20.56	BANK	CLEAR	CALM	CLEAR	RUN	CLEAR	NON-WADEABLE/MID-DEPTH
PI010	EAST BRANCH PISCATAQUA RIVER - RPSEB05 - VRMP	6/28/2014	7:50 AM	D				BANK						NON-WADEABLE/MID-DEPTH
PI010	EAST BRANCH PISCATAQUA RIVER - RPSEB05 - VRMP	7/12/2014	7:40 AM	N	BASEFLOW	MEDIUM	21.11	BANK	CLEAR	CALM	CLEAR	RUN	CLEAR	NON-WADEABLE/MID-DEPTH
PI010	EAST BRANCH PISCATAQUA RIVER - RPSEB05 - VRMP	7/26/2014	7:35 AM	N	BASEFLOW	MEDIUM	18.89	BANK	PARTLY CLOUDY		PARTLY CLOUDY	RUN	CLEAR	NON-WADEABLE/MID-DEPTH
PI010	EAST BRANCH PISCATAQUA RIVER - RPSEB05 - VRMP	8/9/2014	8:05 AM	N	BASEFLOW	MEDIUM	22.22	BANK	CLEAR	CALM	CLEAR	RUN	GREEN - PHYTOPLANKTON BLOOM	NON-WADEABLE/MID-DEPTH
PI010	EAST BRANCH PISCATAQUA RIVER - RPSEB05 - VRMP	8/9/2014	8:05 AM	D				BANK						NON-WADEABLE/MID-DEPTH
PI010	EAST BRANCH PISCATAQUA RIVER - RPSEB05 - VRMP	8/23/2014	7:25 AM	N	BASEFLOW	MEDIUM	17.78	BANK	CLOUDY	CALM	PARTLY CLOUDY	RUN	CLEAR	WADEABLE/MID-DEPTH
PI020	PISCATAQUA RIVER - RPS12 - VRMP	5/17/2014	8:15 AM	N	STORMFLOW	HIGH	13.33	BANK	HEAVY RAIN	BREEZE	LIGHT RAIN	RUN	TURBID	NON-WADEABLE/MID-DEPTH NO VALUE FOR D.O. IN MG/L.
PI020	PISCATAQUA RIVER - RPS12 - VRMP	5/31/2014	7:50 AM	N	BASEFLOW	MEDIUM	11.67	BANK	CLOUDY		CLOUDY, LIGHT RAIN	RIFFLE	CLEAR	NON-WADEABLE/MID-DEPTH
PI020	PISCATAQUA RIVER - RPS12 - VRMP	6/14/2014	7:40 AM	N	STORMFLOW	HIGH	15	BANK	CLOUDY		HEAVY RAIN	RIFFLE	TURBID	CONCENTRATION IS ACTUALLY >2419.6. VALUE FOR USE IN GEOMETRIC MEAN., NON-WADEABLE/MID-DEPTH
PI020	PISCATAQUA RIVER - RPS12 - VRMP	6/28/2014	8:20 AM	N	BASEFLOW	MEDIUM	20.56	BANK	CLEAR	CALM	CLEAR	RUN	CLEAR	NON-WADEABLE/MID-DEPTH
PI020	PISCATAQUA RIVER - RPS12 - VRMP	7/12/2014	7:55 AM	N	BASEFLOW	MEDIUM	21.11	BANK	CLEAR	CALM	CLEAR	RUN	CLEAR	NON-WADEABLE/MID-DEPTH
PI020	PISCATAQUA RIVER - RPS12 - VRMP	7/26/2014	7:50 AM	N	BASEFLOW	MEDIUM	18.89	BANK	PARTLY CLOUDY		PARTLY CLOUDY	RUN	CLEAR	NON-WADEABLE/MID-DEPTH
PI020	PISCATAQUA RIVER - RPS12 - VRMP	8/9/2014	8:20 AM	N	BASEFLOW	MEDIUM	22.22	BANK	CLEAR	CALM	CLEAR	RUN	CLEAR	NON-WADEABLE/MID-DEPTH

Organizati on Site Code	VRMP Site ID	Date	Time	** Sample Type Qualifier	Flow	Stage	Air Temp (°C)	Sample Location	Current Weather	Air Condition	Past 24HR Weather	Habitat	Water Appearance	Comments
PI020	PISCATAQUA RIVER - RPS12 - VRMP	8/23/2014	7:40 AM	N	BASEFLOW	MEDIUM	17.78	BANK	CLOUDY	CALM	PARTLY CLOUDY	RUN	CLEAR	WADEABLE/MID-DEPTH
PL010	PLEASANT RIVER - RPL06 - VRMP	8/9/2014	7:00 AM	N	BASEFLOW	LOW	15.56	WADING	CLEAR	CALM	CLEAR	RUN	CLEAR	WADEABLE/1.5 FT BELOW SURFACE
PL010	PLEASANT RIVER - RPL06 - VRMP	8/23/2014	7:25 AM	N	BASEFLOW	LOW	15.56	BANK	CLOUDY	CALM	CLOUDY	RUN	CLEAR	NON-WADEABLE/MID-DEPTH
PL020	PLEASANT RIVER - RPL29 - VRMP	5/17/2014	6:15 AM	N	BASEFLOW	MEDIUM	13.89	WADING	LIGHT RAIN, SHOWERS		HEAVY RAIN, LIGHT RAIN	RIFFLE	CLEAR	WADEABLE/1.5 FT BELOW SURFACE
PL020	PLEASANT RIVER - RPL29 - VRMP	5/31/2014	8:30 AM	N	BASEFLOW	MEDIUM	11.11	WADING	CLOUDY	CALM	CLOUDY, LIGHT RAIN	RUN	CLEAR	WADEABLE/1.5 FT BELOW SURFACE
PL020	PLEASANT RIVER - RPL29 - VRMP	6/14/2014	7:24 AM	N	STORMFLOW	MEDIUM	14.44	WADING	LIGHT RAIN	CALM	HEAVY RAIN	RUN	MEDIUM STAINED	CONCENTRATION IS ACTUALLY >2419.6. VALUE FOR USE IN GEOMETRIC MEAN., WADEABLE/MID-DEPTH
PL020	PLEASANT RIVER - RPL29 - VRMP	6/28/2014	7:16 AM	N	BASEFLOW	MEDIUM	11.67	WADING	CLEAR	CALM	CLEAR	RIFFLE	CLEAR	WADEABLE/1.5 FT BELOW SURFACE
PL020	PLEASANT RIVER - RPL29 - VRMP	6/28/2014	7:16 AM	D				WADING						WADEABLE/1.5 FT BELOW SURFACE
PL020	PLEASANT RIVER - RPL29 - VRMP	7/12/2014	6:58 AM	N	BASEFLOW	MEDIUM	13.89	WADING	CLEAR	CALM	CLEAR	RUN	CLEAR	WADEABLE/1.5 FT BELOW SURFACE
PL020	PLEASANT RIVER - RPL29 - VRMP	7/26/2014	7:04 AM	N	BASEFLOW	MEDIUM	15.56	WADING	CLEAR	CALM	CLEAR	RUN	CLEAR	WADEABLE/1.5 FT BELOW SURFACE
PL040	PLEASANT RIVER - RPL47 - VRMP	5/17/2014	6:15 AM	N	STORMFLOW	MEDIUM	14.44	BANK	CLOUDY, LIGHT RAIN	BREEZE	CLOUDY, LIGHT RAIN	RUN	MEDIUM STAINED	0.5" RAIN LAST NIGHT WADEABLE/MID- DEPTH
PL040	PLEASANT RIVER - RPL47 - VRMP	5/31/2014	6:17 AM	N	BASEFLOW	MEDIUM	10.56	BANK	CLOUDY, FOGGY	CALM	CLOUDY, LIGHT RAIN	RUN	MEDIUM STAINED	WADEABLE/MID-DEPTH
PL040	PLEASANT RIVER - RPL47 - VRMP	6/14/2014	6:12 AM	N	STORMFLOW	HIGH	13.33	BANK	MOSTLY CLOUDY	CALM	HEAVY RAIN, LIGHT RAIN	RUN	DARKLY STAINED	1.25" RAIN ON FRIDAY (6/13/14) WADEABLE/MID-DEPTH, CONCENTRATION IS ACTUALLY >2419.6. VALUE FOR USE IN GEOMETRIC MEAN.
PL040	PLEASANT RIVER - RPL47 - VRMP	6/28/2014	6:01 AM	N	STORMFLOW	HIGH	11.11	CULVERT	CLEAR	CALM	CLEAR, CLOUDY	RUN	DARKLY STAINED	WADEABLE/MID-DEPTH ZERO DO CHECK=0.64 MG/L
PL040	PLEASANT RIVER - RPL47 - VRMP	6/28/2014	6:01 AM	D				CULVERT						WADEABLE/MID-DEPTH ZERO DO CHECK=0.64 MG/L
PL040	PLEASANT RIVER - RPL47 - VRMP	7/12/2014	5:53 AM	N	BASEFLOW	MEDIUM	13.33	BANK	CLEAR		CLEAR	RUN	DARKLY STAINED	WADEABLE/MID-DEPTH
PL040	PLEASANT RIVER - RPL47 - VRMP	7/26/2014	6:11 AM	N	BASEFLOW	LOW	16.67	BANK	PARTLY CLOUDY	CALM	PARTLY CLOUDY	RUN	MEDIUM STAINED	WADEABLE/MID-DEPTH
PL040	PLEASANT RIVER - RPL47 - VRMP	8/9/2014	6:21 AM	N	BASEFLOW	MEDIUM	15	BANK	CLEAR, CLOUDY	CALM	CLEAR, LIGHT RAIN	RUN	DARKLY STAINED	WADEABLE/MID-DEPTH
PL040	PLEASANT RIVER - RPL47 - VRMP	8/23/2014	6:18 AM	N	BASEFLOW	HIGH	15	BANK	CLOUDY	CALM	CLOUDY	RUN	MEDIUM STAINED	WADEABLE/MID-DEPTH
TA010	TANNERY BROOK - RLTTN06 - VRMP	5/17/2014	6:58 AM	N	STORMFLOW	MEDIUM	13.89	WADING	HEAVY RAIN, MOSTLY CLOUDY	BREEZE	CLEAR, HEAVY RAIN, LIGHT RAIN, PARTLY CLOUDY	RUN	CLEAR	WADEABLE/MID-DEPTH
TA010	TANNERY BROOK - RLTTN06 - VRMP	5/31/2014	7:20 AM	N	BASEFLOW	MEDIUM	10	WADING	CLOUDY		CLEAR, CLOUDY, LIGHT RAIN	RIFFLE	CLEAR	WADEABLE/MID-DEPTH
TA010	TANNERY BROOK - RLTTN06 - VRMP	6/14/2014	7:12 AM	N	STORMFLOW	HIGH	15	WADING	CLOUDY		CLOUDY, HEAVY RAIN, LIGHT RAIN	RIFFLE	TURBID	CONCENTRATION IS ACTUALLY >2419.6. VALUE FOR USE IN GEOMETRIC MEAN., WADEABLE/MID-DEPTH
TA010	TANNERY BROOK - RLTTN06 - VRMP	6/28/2014	7:20 AM	N	BASEFLOW	MEDIUM	11.11	WADING	CLEAR	CALM	CLEAR	RIFFLE	CLEAR	WADEABLE/MID-DEPTH

Organizati on Site Code	VRMP Site ID	Date	Time	** Sample Type Qualifier	Flow	Stage	Air Temp (°C)	Sample Location	Current Weather	Air Condition	Past 24HR Weather	Habitat	Water Appearance	Comments
TA010	TANNERY BROOK - RLTTN06 - VRMP	7/12/2014	7:15 AM	N	BASEFLOW	MEDIUM	13.89	WADING	CLEAR	CALM	CLEAR, PARTLY CLOUDY	RIFFLE	CLEAR	WADEABLE/MID-DEPTH D.O. METER-DID NOT RECORD TIME OF CALIBRATION. CALIBRATION VALUE OK.
TA010	TANNERY BROOK - RLTTN06 - VRMP	7/26/2014	7:19 AM	N	BASEFLOW	MEDIUM	14.44	WADING	CLEAR	CALM	CLEAR	RIFFLE	CLEAR	WADEABLE/1.5 FT BELOW SURFACE
TA010	TANNERY BROOK - RLTTN06 - VRMP	8/9/2014	7:49 AM	N	BASEFLOW	MEDIUM	15.56	WADING	CLEAR	CALM	CLEAR, CLOUDY	RIFFLE	CLEAR	WADEABLE/MID-DEPTH
TA010	TANNERY BROOK - RLTTN06 - VRMP	8/9/2014	7:49 AM	D				WADING						WADEABLE/MID-DEPTH
TA010	TANNERY BROOK - RLTTN06 - VRMP	8/23/2014	7:22 AM	N	BASEFLOW	MEDIUM	15.56	WADING	MOSTLY CLOUDY	CALM	CLOUDY, PARTLY CLOUDY	RIFFLE	CLEAR	WADEABLE/MID-DEPTH

## Presumpscot River - Presumpscot River Watch: Non-Approved Sites

L010	LITTLE RIVER - RLT08 - PRW	5/17/2014	7:35 AM	N	STORMFLOW	MEDIUM	13.89	BANK	HEAVY RAIN, MOSTLY CLOUDY	BREEZE	CLEAR, HEAVY RAIN, LIGHT RAIN, PARTLY CLOUDY	RUN	CLEAR	NON-WADEABLE/MID-DEPTH
L010	LITTLE RIVER - RLT08 - PRW	5/31/2014	6:30 AM	N	BASEFLOW	MEDIUM	10	BANK	PARTLY CLOUDY		CLEAR, CLOUDY, LIGHT RAIN	RUN	CLEAR	WADEABLE/MID-DEPTH
L010	LITTLE RIVER - RLT08 - PRW	6/14/2014	6:25 AM	N	STORMFLOW	MEDIUM	15	BANK	CLOUDY		CLOUDY, HEAVY RAIN, LIGHT RAIN	RUN	TURBID	CONCENTRATION IS ACTUALLY >2419.6. VALUE FOR USE IN GEOMETRIC MEAN., NON-WADEABLE/MID-DEPTH
L010	LITTLE RIVER - RLT08 - PRW	6/28/2014	6:33 AM	N	BASEFLOW	MEDIUM	11.11	BANK	CLEAR	CALM	CLEAR	RUN	CLEAR	NON-WADEABLE/MID-DEPTH ZERO DO CHECK=0.06 MG/L
L010	LITTLE RIVER - RLT08 - PRW	6/28/2014	6:33 AM	D				BANK						NON-WADEABLE/MID-DEPTH ZERO DO CHECK=0.06 MG/L
L010	LITTLE RIVER - RLT08 - PRW	7/12/2014	6:34 AM	N	BASEFLOW	MEDIUM	13.89	BANK	CLEAR	CALM	CLEAR, PARTLY CLOUDY	RUN	CLEAR	DUCKS ON LITTLE RIVER NON- WADEABLE/MID-DEPTH D.O. METER-DID NOT RECORD TIME OF CALIBRATION. CALIBRATION VALUE OK.
L010	LITTLE RIVER - RLT08 - PRW	7/26/2014	6:35 AM	N	BASEFLOW	MEDIUM	14.44	BANK	CLEAR	CALM	CLEAR	RUN	CLEAR	NON-WADEABLE/MID-DEPTH
L010	LITTLE RIVER - RLT08 - PRW	8/9/2014	6:58 AM	N	BASEFLOW	MEDIUM	15.56	BANK	CLEAR	CALM	CLEAR, PARTLY CLOUDY	RUN	CLEAR	NON-WADEABLE/MID-DEPTH
L010	LITTLE RIVER - RLT08 - PRW	8/9/2014	6:58 AM	D				BANK						NON-WADEABLE/MID-DEPTH
L010	LITTLE RIVER - RLT08 - PRW	8/23/2014	6:42 AM	N	BASEFLOW	MEDIUM	15.56	BANK	MOSTLY CLOUDY	CALM	CLOUDY, PARTLY CLOUDY	RUN	CLEAR	NON-WADEABLE/MID-DEPTH