Section 5-2 Androscoggin River (Friends of Merrymeeting Bay)

Androscoggin River

The Androscoggin River is the third largest river in the state. It has a length of 177 miles and drainage area of 3,450 square miles (2,730 sq. mi. in Maine). The headwaters are Umbagog Lake in Maine/New Hampshire. From there it flows into New Hampshire and then back into Maine through the towns of Gilead and Bethel. It continues flowing through the towns and cities of Rumford, Mexico, Dixfield, Jay, Livermore Falls, Lewiston, Auburn, Lisbon, Lisbon Falls, Durham, Brunswick, and Topsham where it joins the Kennebec River at Merrymeeting Bay.

The Androscoggin River has a long history of industrial and municipal use over the last 200 years.¹ Beginning in the early 1800s, many dams were constructed for mills, primarily in the lower part of the river. By the late 1800s, many textile and lumber mills were in operation, mostly from Lewiston to Brunswick. Pulp and paper mills that are still in operation today were established in the late 1800s in New Hampshire, Rumford, and Jay. Beginning in the late 1920s, Central Maine Power built hydroelectric dams that impounded much of the river from Lewiston to Livermore Falls. Some of these uses continue today. "Along its course to the sea, the river is repeatedly dammed. It receives discharges from industrial and municipal sources, as well as polluted runoff from a variety of sources."² Specific problems include mill discharges, combined sewer overflows (CSOs), dam impacts (28 dams exist), and historical sediment toxins.

The Androscoggin River is assigned Class B from the Maine/New Hampshire boundary to its confluence with the Ellis River. It is assigned Class C from the confluence with the Ellis River to Merrymeeting Bay.

Monitoring History

- The Maine DEP Biological Monitoring Program has been monitoring the lower Androscoggin River since 1984. This data is available on DEP's website.
- The lower Androscoggin River is monitored by the Friends of Merrymeeting Bay (FOMB). FOMB has been in existence since 1975 and focuses on protecting the Merrymeeting Bay watershed through research, education, advocacy, and land conservation. They have been monitoring the lower part of the Androscoggin River, tributaries to Merrymeeting Bay, and the Bay since 1999. Their monitoring has extended up the Androscoggin at times (depending on volunteers) to Livermore Falls. FOMB joined the VRMP in 2009 with an interest in bringing about water classification upgrades where possible.

¹ Maine Rivers Website- Androscoggin River Profile

² Androscoggin River Alliance Website-Androscoggin River slideshow

- In 2011, FOMB requested that two of the three approved sites (Water Street Mooring, WSM and Brunswick Canoe Mooring, BCM) be moved from mid-channel to shore. They submitted monitoring data from mid-channel and shore to demonstrate similarity. The Department approved relocation of these approved sites. FOMB renamed these sites Brunswick Water Street (BWS) and Brunswick Canoe Portage (BCP), respectively.
- In 2010, a water quality model to predict effect of discharges and river flows on attainment of Maine's Water Quality Standards was developed for the lower Androscoggin River by the Maine DEP. The model report and data are available on DEP's website.

Methods and Sampling Sites

Volunteers monitor the Androscoggin River at eight sites on the main stem. All of the sites are now VRMP approved sites.

Monitoring is conducted once/month from May through September-October. Monitors take measurements of water temperature and dissolved oxygen using a YSI meter. Specific conductance is measured using either a YSI meter or an Oakton EC 11+/11 Testr pen. Samples are collected for *E. coli* bacteria and transported to Bowdoin College for analysis by FOMB volunteers using the IDEXX Colilert system.

Table 5-2-1: Friends of Merrymeeting Bay sampling sites at Androscoggin River.

VRMP Site ID	Organization Site Code	Sample Location	Class
Androscoggin River-A231-VRMP	BBB	Bay Bridge Jetty	С
Androscoggin River-A281-VRMP	BWS	Brunswick Water Street	С
Androscoggin River-A299-VRMP	ВСР	Brunswick Canoe Portage	С
Androscoggin River- A24-FOMB	BIL	Brunswick Interstate Ledges	С
Androscoggin River-A45-FOMB	FPD	Fish Park Downstream	С
Androscoggin River-A47-FOMB	FPU	Fish Park Upstream	С
Androscoggin River-A71-FOMB	PBL	Pejepscot Boat Launch	С
Androscoggin River-A158-FOMB	DBL	Durham Boat Launch	С

Androscoggin River Sampling SitesFriends of Merrymeeting Bay

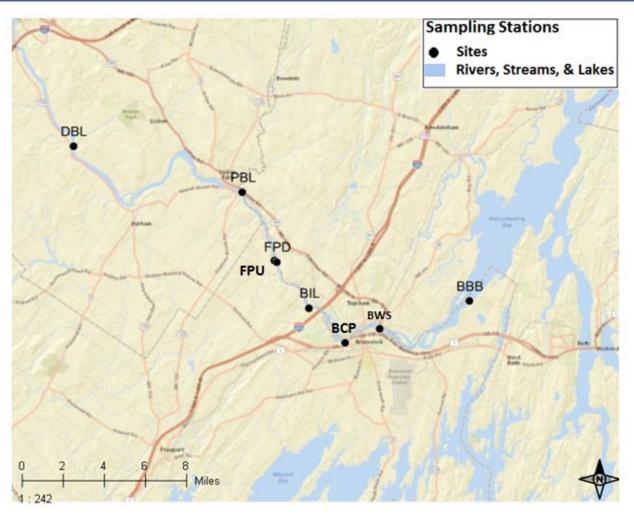


Figure 5-2-1: Map of all Friends of Merrymeeting Bay sampling sites on the Androscoggin River

Results

Refer to Appendix A-1 for 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 C criteria for dissolved oxygen are a minimum of 5 mg/l or 60 % saturation. Class B criteria for dissolved oxygen are a minimum of 7 mg/l (milligrams/liter) or 75% saturation. To meet water quality criteria, both concentration and saturation standards must be met.

2015 Results:

Dissolved oxygen (DO) was measured 6 times from May through October at 7 sampling sites. At all the sites, DO concentration was above the Class C criterion of 5 mg/l. It was also at or above the Class B criterion of 7 mg/l at all sites. Dissolved oxygen percent saturation was above the Class C criterion of 60% saturation for all dates and also above Class B criterion of 75% saturation for all dates. Overall sites BBB, BWS and BCP are very similar. The sites above here (BIL, FPD, FPU, and PBL) are also very similar. Dissolved oxygen was overall excellent.

Table 5-2-2: A summary of minimum, maximum, and mean dissolved oxygen concentration values (mg/l) at Friends of Merrymeeting Bay monitoring sites on the Androscoggin River.

Site	Class	# Sample Points	Mean	Minimum	Maximum	Criterion	# Not Meeting Criterion
BBB	С	6	8.5	7.0	9.8	5	0
BWS	С	6	8.9	7.2	11.0	11.0 5	
ВСР	С	7	8.4	7.0	10.2	5	0
BIL	С	6	8.7	7.4	10.2	5	0
FPD	С	6	8.8	7.4	10.4	5	0
FPU	С	6	8.8	7.3	10.2	5	0
PBL	С	6	8.9	7.5	10.3	5	0

Table 5-2-3: A summary of minimum, maximum, and mean dissolved oxygen saturation (%) values at Friends of Merrymeeting Bay monitoring sites on the Androscoggin River.

Site	Class	# Sample Points	Mean	Mean Minimum		Criterion	# Not Meeting Criterion
BBB	С	6	88.7	83.7	96.7	60	0
BWS	С	6	94.0	86.7	86.7 98.6 60		0
ВСР	С	7	90.7	83.7	97.0	60	0
BIL	С	6	92.4	86.3	97.0	60	0
FPD	С	6	93.8	88.2	98.0	60	0
FPU	С	6	93.4	87.3	97.5	60	0
PBL	С	6	94.0	89.4	96.8	60	0

Figure 5-2-2: Graph of dissolved oxygen concentrations-lower sites

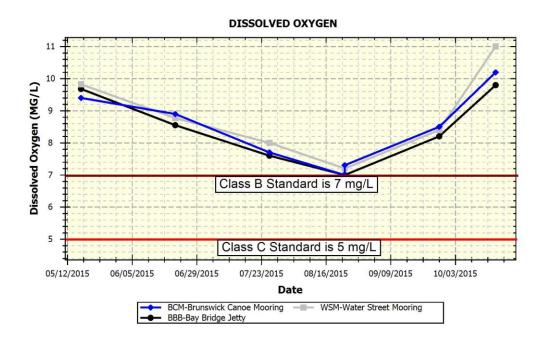


Figure 5-2-3: Graph of dissolved oxygen concentrations-upper sites

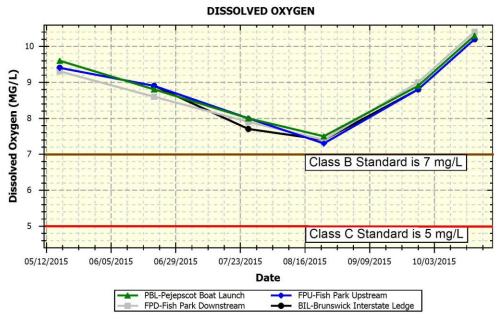
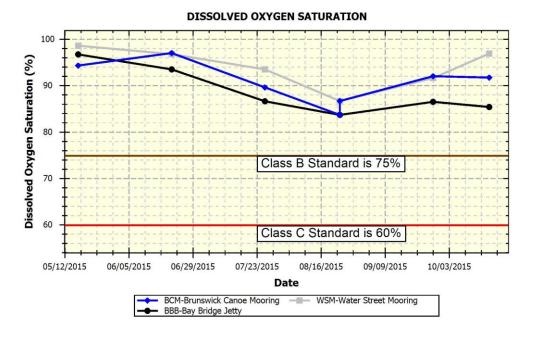


Figure 5-2-4: Graph of dissolved oxygen saturation-lower sites



DISSOLVED OXYGEN SATURATION Dissolved Oxygen Saturation (%) 90 Class B Standard is 75% 60 Class C Standard is 60% 07/25/2015 08/18/2015 05/14/2015 06/07/2015 07/01/2015 09/11/2015 10/05/2015 **Date** Class C Standards are 60%Saturation → PBL-Peiepscot Boat Launch FPU-Fish Park Upstream FPD-Fish Park Downstream BIL-Brunswick Interstate Ledge

Figure 5-2-5: Graph of dissolved oxygen saturation-upper sites

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.

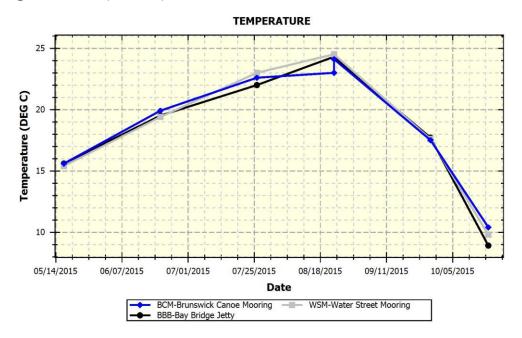
2015 Results:

Temperature at the 3 lowest sampling sites (BBB, BWS and BCP) were similar with highest temperatures occurring in July and August (22°-24°C). Temperature was very similar at the 4 sampling sites above (BIL, FPD, FPU, PBL) with highest readings occurring in July and August also (20°-24° C). Because sampling only occurs monthly, it is not possible to determine how long temperatures remained high. Since measurements are taken close to the surface [mid-depth (1-1.5 ft.)], it is not too surprising that temperatures can get quite warm in July and August in the large open river.

Table 5-2-4: A summary of minimum, maximum, and mean water temperature (°C) values at Friends of Merrymeeting Bay monitoring sites on the Androscoggin River.

Site	Class	# Sample Points	Mean	Mean Minimum		Mean Minimum Maximum		Criterion	# Exceeding Criterion
BBB	С	6	18.0	8.9	24.3	n/a	n/a		
BWS	С	6	18.3	9.8	24.5	n/a	n/a		
ВСР	С	7	19.0	10.4	24.1	n/a	n/a		
BIL	С	6	18.7	10.1	24.1	n/a	n/a		
FPD	С	6	18.9	10.6	24.3	n/a	n/a		
FPU	С	6	18.9	10.8	24.2	n/a	n/a		
PBL	С	6	18.8	11.1	24.3	n/a	n/a		

Figure 5-2-6: Graph of temperature-lower sites



TEMPERATURE

24

22

20

18

16

14

12

10

07/24/2015

Date

Figure 5-2-7: Graph of temperature-upper sites

Specific Conductance

08/17/2015

FPU-Fish Park Upstream

BIL-Brunswick Interstate Ledg

09/10/2015

10/04/2015

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 high 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. Also, discharges from pulp and paper mills upstream measurably increase the conductivity of the river.

2015 Results:

05/13/2015

06/06/2015

06/30/2015

PBL-Pejepscot Boat Launch

FPD-Fish Park Downstream

Specific conductance was measured from May through October at the sampling sites with measurements ranging from 50-170 μ S/cm. Overall, the mean values are low, but values are somewhat elevated later in the season reflecting point and non-point source effects. Specific conductance overall is good.

Table 5-2-5: A summary of minimum, maximum, and mean specific conductance values (micro-ohms/cm, μ S/cm) at Friends of Merrymeeting Bay monitoring sites on the Androscoggin River.

Site	Class	# Sample Points	Mean	Minimum	Maximum	Criterion	# Exceeding Criterion
BBB	С	6	110	70	160	n/a	n/a
BWS	С	6	112	60	170	n/a	n/a
ВСР	С	7	103	60	160	n/a	n/a
BIL	С	6	88	50	140	n/a	n/a
FPD	С	6	90	50	140	n/a	n/a
FPU	С	6	88	50	140	n/a	n/a

PBL	С	6	97	60	140	n/a	n/a
							· ·

Figure 5-2-8: Graph of specific conductance-lower sites

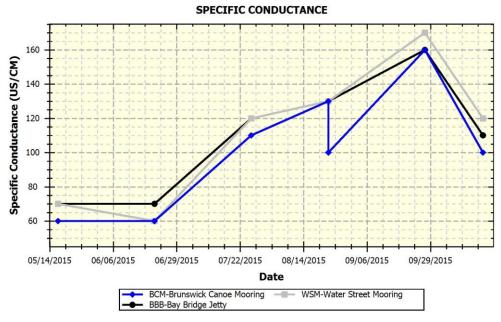
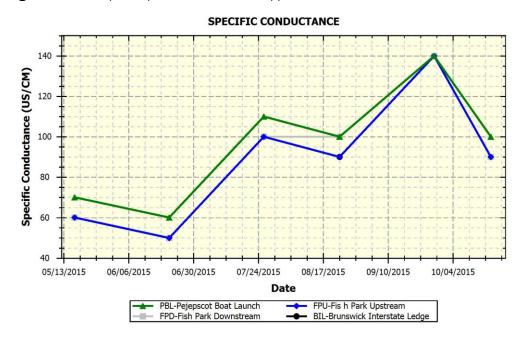


Figure 5-2-9: Graph of specific conductance-upper sites



Bacteria

E. coli bacteria are used as the indicator organism for freshwater. While these types of bacteria are not pathogens, their presence in the water may indicate the presence of other organisms including bacteria and viruses that can cause gastrointestinal illnesses. Class C criteria for bacteria are as follows: "Between May 15th and September 30th, 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." Class B criteria are as follows: "Between May 15th and September 30th, 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." Geometric means are calculated instead of averages because it is more appropriate to use geometric mean for something like bacteria where there may be one or more very high or low values that can skew the mean.

2015 Results:

Escherichia coli bacteria was sampled from May through October at 7 sampling sites. Weather conditions included a mix of conditions with one date where there was heavy rain in the previous 24 hours (June), showers (May and October), and light rain-cloudy-clear for the remaining months (July, August, September). Five of seven sites exceeded the Class B and Class C bacteria instantaneous criterion of 236 (MPN/100ml) one time. The exceedances all occurred in October. The Class C geometric mean criterion of 126 (MPN/100ml) was not exceeded at any of the sites. The Class B geometric mean criterion of 64 (MPN/100ml) was not exceeded at any of the sites. Interestingly the exceedances all occurred in October and not in June when there was a heavy rain event. This could reflect that the system gets flushed out over the winter-spring period and then bacteria levels increase as the season progresses. Typically high bacterial levels are associated with stormwater runoff and/or combined sewer overflows. FOMB suggests that high bacteria levels also may reflect the seasonal September cessation of chlorine inputs by wastewater treatment plants along the river. Because bacteria counts are typically lower in colder water, treatment plants are only required to chlorinate May-Spetember. Overall, bacteria levels are good.

Table 5-2-6: A summary of minimum, maximum, and geometric mean values (MPN/100mL) for bacteria at Friends of Merrymeeting Bay monitoring sites on the Androscoggin River.

Site	Class	# Sample Points	Geometric Mean	Minimum	Maximum	Criterion Inst/Geo	# Exceeding Criterion
BBB	С	6	17	1	291	236/126	1
BWS	С	6	23	3	238	236/126	1
ВСР	С	7	25	6 222 236/1		236/126	0
BIL	С	6	16	4	192	236/126	0
FPD	С	6	14	4	206	236/126	0
FPU	С	6	15	3	276	236/126	1
PBL	С	6	49	13	291	236/126	1
DBL	С	6	21	6	579	236/126	1

Figure 5-2-10: Graph of E. coli (MPN/ml)-lower sites

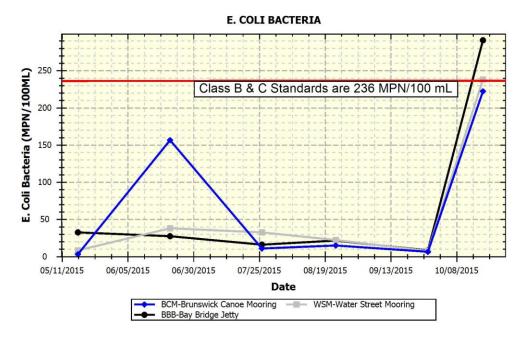
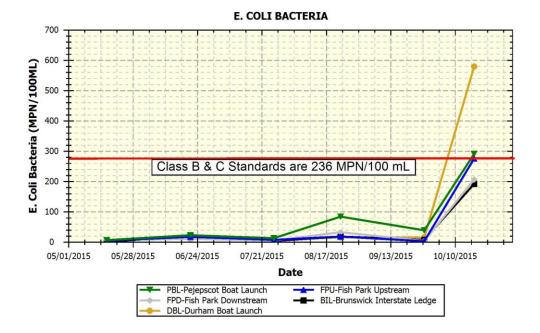


Figure 5-2-10: Graph of E. coli (MPN/ml)-upper sites



Discussion and Recommendations

There are numerous sources of pollution and other stresses to the Androscoggin River sites monitored by the Friends of Merrymeeting Bay that could potentially have an impact on water quality. Some of those sources of pollution and stress may include:

- Point source pollution (pollution originating from a direct discharge including wastewater treatment plant discharge, combined sewer overflows and overboard discharges).
- Non-point source pollution (e.g., eroded soil, fertilizers, pesticides, heavy metals, petroleum residues, road salt, septic systems, wildlife and pet feces) and polluted stormwater originating from urban impervious surfaces (e.g., streets, parking lots, driveways, rooftops), agriculture, and forestry.
- Ponds and impoundments (which often create more pond-like aquatic habitat conditions that
 may have higher water temperatures and lower dissolved oxygen concentrations than freeflowing waters).
- 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 are characteristic of many
 wetlands).

The following are recommendations for future monitoring:

- Some of the sites are very similar. Friends of Merrymeeting Bay might consider dropping some sites that are close to each other. They should also consider adding new sites, including streams draining to the Androscoggin River.
- Bacteria monitoring should continue to include a mix of sampling events to include both dry and runoff events. If possible, volunteer leaders could try to collect 1-2 bacteria samples during/after rain events.
- Continue monitoring at all stations (or at least a subset of sites) to develop a long-term trend database. FOMB might consider sampling 2 X/month in July and August.

Appendix A-1. 2011 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.

^{** &}quot;N/A" = normal environmental sample; "D" = field duplicate; "D.O." = dissolved oxygen; "Spec. Cond" = specific conductance; "Turb" = turbidity; "TSS" = total suspended solids" Refer to Appendix A-2 for observational data and quality assurance/quality control (QA/QC) notes.

				**					**				Total		E Coli	Entero-
				Sample	*			**	**	Spec.		Turb-	Diss.	**	Bacteria	cocci
Organization				Туре	Sample	Depth	Water Temp	D.O.	D.O.	Cond.	Salinity	idity	Solids	TSS	(MPN/	(MPN/
Site Code	VRMP Site ID	Date	Time	Qualifier	Depth	Unit	(DEG C)	Sat. (%)	(MG/L)	(US/CM)	(PPTH)	(NTU)	(MG/L)	(MG/L)	100ML)	100ML)
Androscoggin River-Friends of Merrymeeting Bay: Approved Sites																
DDI	ANDROCCOCCINI DIVER ALEO VIDAD	F /47/204F		NIA											C 2	
DBL	ANDROSCOGGIN RIVER - A158 - VRMP	5/17/2015		NA											6.3	
DBL	ANDROSCOGGIN RIVER - A158 - VRMP	6/21/2015		NA D											10.8	
DBL	ANDROSCOGGIN RIVER - A158 - VRMP	6/21/2015		D											18.5	
DBL	ANDROSCOGGIN RIVER - A158 - VRMP	7/26/2015		NA											7.5	
DBL	ANDROSCOGGIN RIVER - A158 - VRMP	8/23/2015		NA											16.1	
DBL	ANDROSCOGGIN RIVER - A158 - VRMP	9/27/2015		NA											15.8	
DBL	ANDROSCOGGIN RIVER - A158 - VRMP	10/18/2015		NA											579.4	
BBB	ANDROSCOGGIN RIVER - A231 - VRMP	5/17/2015		NA			15.6	96.7	9.7	70					32.7	
BBB	ANDROSCOGGIN RIVER - A231 - VRMP	6/21/2015	7:00 AM	NA			19.5	93.5	8.6	70					27.5	
BBB	ANDROSCOGGIN RIVER - A231 - VRMP	7/26/2015	7:00 AM	NA			22.0	86.6	7.6	120					16	<u> </u>
BBB	ANDROSCOGGIN RIVER - A231 - VRMP	7/26/2015	7:00 AM	D											16	1
BBB	ANDROSCOGGIN RIVER - A231 - VRMP	8/23/2015	7:00 AM	NA			24.3	83.7	7.0	130					21.6	
BBB	ANDROSCOGGIN RIVER - A231 - VRMP	9/27/2015	8:00 AM	NA			17.7	86.5	8.2	160					8.3	
BBB	ANDROSCOGGIN RIVER - A231 - VRMP	10/18/2015	7:50 AM	NA			8.9	85.4	9.8	110					290.9	
BIL	ANDROSCOGGIN RIVER - A24 - VRMP	5/17/2015	7:45 AM	NA			15.6	94.3	9.4	60					1	
BIL	ANDROSCOGGIN RIVER - A24 - VRMP	5/17/2015	7:45 AM	D			15.6		9.4						4.1	
BIL	ANDROSCOGGIN RIVER - A24 - VRMP	6/21/2015	8:00 AM	NA			20.0	97.0	8.9	50					19.7	
BIL	ANDROSCOGGIN RIVER - A24 - VRMP	7/26/2015	7:38 AM	NA			22.7	89.5	7.7	100					4.1	
BIL	ANDROSCOGGIN RIVER - A24 - VRMP	8/23/2015	8:00 AM	NA			24.1	86.3	7.4	90					18.5	
BIL	ANDROSCOGGIN RIVER - A24 - VRMP	9/27/2015	7:40 AM	NA			19.7	95.4	8.8	140					7.4	
BIL	ANDROSCOGGIN RIVER - A24 - VRMP	10/18/2015	7:30 AM	NA			10.1	92.1	10.2	90					191.8	
WSM	ANDROSCOGGIN RIVER - A281 - VRMP	5/17/2015	8:00 AM	NA			15.4	98.6	9.8	70					8.4	
WSM	ANDROSCOGGIN RIVER - A281 - VRMP	6/21/2015	6:15 AM	NA			19.4	96.8	8.8	60					37.9	
WSM	ANDROSCOGGIN RIVER - A281 - VRMP	7/26/2015	8:00 AM	NA			23.0	93.5	8.0	120					32.7	
WSM	ANDROSCOGGIN RIVER - A281 - VRMP	8/23/2015	6:35 AM	NA			24.5	86.7	7.2	130					22.1	
WSM	ANDROSCOGGIN RIVER - A281 - VRMP	8/23/2015		D											27.5	
WSM	ANDROSCOGGIN RIVER - A281 - VRMP	9/27/2015	7:40 AM	NA			17.6	91.6	8.4	170					7.4	
WSM	ANDROSCOGGIN RIVER - A281 - VRMP	10/18/2015		NA			9.8	96.9	11.0	120					238.2	
BCM	ANDROSCOGGIN RIVER - A299 - VRMP	5/17/2015		NA			15.6	94.3	9.4	60					3.1	
BCM	ANDROSCOGGIN RIVER - A299 - VRMP	6/21/2015		NA			19.9	97.0	8.9	60					156.5	
BCM	ANDROSCOGGIN RIVER - A299 - VRMP	7/26/2015		NA NA			22.6	89.6	7.7	110					10.9	
BCM	ANDROSCOGGIN RIVER - A299 - VRMP	8/23/2015		NA NA			23.0	83.7	7.0	130					20.5	
BCM	ANDROSCOGGIN RIVER - A299 - VRMP	8/23/2015		NA NA			24.1	86.7	7.3	100					14.8	
BCM	ANDROSCOGGIN RIVER - A299 - VRMP	8/23/2015	8:15 AM	NA			24.1	86.7	7.3	100					14.8	,

Androscoggin River-Friends of Merrymeeting Bay

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

				**						**			Total		E Coli	Entero-
				Sample	*			**	**	Spec.		Turb-	Diss.	**	Bacteria	cocci
Organization				Туре	Sample	Depth	Water Temp	D.O.	D.O.	Cond.	Salinity	idity	Solids	TSS	(MPN/	(MPN/
Site Code	VRMP Site ID	Date	Time	Qualifier	Depth	Unit	(DEG C)	Sat. (%)	(MG/L)	(US/CM)	(PPTH)	(NTU)	(MG/L)	(MG/L)	100ML)	100ML)
BCM	ANDROSCOGGIN RIVER - A299 - VRMP	9/27/2015	7:15 AM	NA			17.5	92.0	8.5	160					6.3	<u>i</u>
BCM	ANDROSCOGGIN RIVER - A299 - VRMP	10/18/2015	7:00 AM	NA			10.4	91.7	10.2	100					222.4	<u>. </u>
FPD	ANDROSCOGGIN RIVER - A45 - VRMP	5/17/2015	7:30 AM	NA			15.6	93.6	9.3	60					7.4	
FPD	ANDROSCOGGIN RIVER - A45 - VRMP	6/21/2015	7:45 AM	NA			20.0	97.3	8.6	50					10.9	
FPD	ANDROSCOGGIN RIVER - A45 - VRMP	7/26/2015	7:05 AM	NA			23.0	92.5	7.9	100					5.2	
FPD	ANDROSCOGGIN RIVER - A45 - VRMP	8/23/2015	7:45 AM	NA			24.3	88.2	7.4	100					33.1	
FPD	ANDROSCOGGIN RIVER - A45 - VRMP	9/27/2015	7:10 AM	NA			19.8	98.0	9.0	140					4.1	
FPD	ANDROSCOGGIN RIVER - A45 - VRMP	10/18/2015	6:55 AM	NA			10.6	93.3	10.4	90					206.4	
FPD	ANDROSCOGGIN RIVER - A45 - VRMP	10/18/2015	6:55 AM	D											191.8	
FBU	ANDROSCOGGIN RIVER - A47 - VRMP	5/17/2015	7:15 AM	NA			15.6	94.7	9.4	60					5.2	
FBU	ANDROSCOGGIN RIVER - A47 - VRMP	6/21/2015	7:30 AM	NA			20.1	97.5	8.9	50					17.3	
FBU	ANDROSCOGGIN RIVER - A47 - VRMP	7/26/2015	6:40 AM	NA			22.9	93.1	8.0	100					7.4	
FBU	ANDROSCOGGIN RIVER - A47 - VRMP	8/23/2015	7:15 AM	NA			24.2	87.3	7.3	90					18.1	
FBU	ANDROSCOGGIN RIVER - A47 - VRMP	8/23/2015	7:15 AM	D											25.9	
FBU	ANDROSCOGGIN RIVER - A47 - VRMP	9/27/2015	6:48 AM	NA			19.8	95.5	8.8	140					3	
FBU	ANDROSCOGGIN RIVER - A47 - VRMP	9/27/2015	6:48 AM	D			19.8	95.5	8.8	140						
FBU	ANDROSCOGGIN RIVER - A47 - VRMP	10/18/2015	6:40 AM	NA			10.8	92.1	10.2	90					275.5	
PBL	ANDROSCOGGIN RIVER - A71 - VRMP	5/17/2015	6:45 AM	NA			15.2	94.6	9.6	70					6.3	
PBL	ANDROSCOGGIN RIVER - A71 - VRMP	6/21/2015	6:45 AM	NA			19.8	96.8	8.8	60					22.5	
PBL	ANDROSCOGGIN RIVER - A71 - VRMP	6/21/2015	6:45 AM	D			19.8	96.8	8.8	60					18.7	
PBL	ANDROSCOGGIN RIVER - A71 - VRMP	7/26/2015	6:00 AM	NA			22.6	94.1	8.0	110					13.2	
PBL	ANDROSCOGGIN RIVER - A71 - VRMP	7/26/2015	6:00 AM	D			22.6	94.1	8.0	110					18.9	
PBL	ANDROSCOGGIN RIVER - A71 - VRMP	8/23/2015	6:45 AM	NA			24.3	89.4	7.5	100					83.9	
PBL	ANDROSCOGGIN RIVER - A71 - VRMP	9/27/2015	6:15 AM	NA			19.7	96.8	8.9	140					39.3	
PBL	ANDROSCOGGIN RIVER - A71 - VRMP	10/18/2015	6:10 AM	NA			11.1	92.4	10.3	100					290.9	