Section 5-5
Mousam River (Mousam and Kennebunk Rivers Alliance)

Refer to Chapter 4 of this document for information about sampling methods, sampling sites, and quality assurance.

Overview

The Mousam and Kennebunk Rivers Alliance began in 2009 with assistance from the Wells National Estuarine Research Reserve (NERR) and Maine Rivers, for the purpose of monitoring the Kennebunk and Mousam rivers. The Mousam River is located in York County and originates at Square Pond in Shapleigh and Acton, Maine. The river is 23 miles long, flows from Mousam Lake in Shapleigh, and enters the Gulf of Maine in Kennebunk. Water quality in the Mousam River was impacted historically by industrial and commercial use related to mills in the towns of Sanford and Kennebunk (Baker, 1999). Today, water quality impacts are caused in large part by stormwater runoff associated with increasing development of the watershed and high levels of impervious surfaces in the town centers of Sanford and Kennebunk. Water quality is also impacted by several point source discharges to the main stem. In addition, the industrial legacy of the ten dams on the main stem of the river may also contribute to degraded water quality. According to Maine's statutory Water Classification System, the Mousam River Basin has designations listed below.[1] Below head of tide, the river is Class SB.

A. Mousam River, main stem.
   (1) From the outlet of Mousam Lake to a point located 0.5 miles above Mill Street in Springvale – Class B.
   (2) From a point located 0.5 mile above Mill Street in Springvale to its confluence with Estes Lake – Class C.
   (3) From the outlet of Estes Lake to tidewater – Class B.

B. Mousam River, tributaries – Class B.

It was identified in a 2001 TMDL report that a 3.7 mile segment of the Mousam River, located from the Route 4 bridge to Estes Lake, is not attaining Class C standards due to dissolved oxygen concentration. This segment is included on Maine's 303(d) list for both point and non-point sources. Listing essentially means that the segment has been identified as needing, and is targeted for, remediation.

The overall purpose of monitoring is to assess water quality data to determine whether the river is meeting water quality classification standards. The Mousam River Sampling and Analysis Plan states that the objectives of monitoring are to: (1) develop baseline data for expanded long-term water quality monitoring efforts; (2) provide information on current watershed conditions; and (3) identify areas with degraded water quality to focus best management practices. Two sites were added in 2010 to bracket upstream and downstream of the sewage outfall in Sanford.

[1] http://www.mainelegislature.org/legis/statutes/38/title38sec467.html

Methods

The volunteers monitored the Mousam River in 2011 at ten stations on the main stem, from the headwaters to the estuary (Table 5-5-1 and Figures 5-5-1 through 5-5-5). Three of the stations [MOUR-06, MOUR-07 and MOUR-08] are below head of tide. There are also three tributary sites on the Middle Branch of the Mousam River and Littlefield River. All but one of the Mousam River sites are VRMP approved sites- the one non approved site is MOUR-04.

Table 5-5-1: Mousam and Kennebunk Rivers Alliance sampling sites on the Mousam River.

VRMP Site ID	Organization Site Code	Sample Location	Class
Mousam River-SMU290-VRMP	MOUR-01	Headwaters	B
Mousam River-SMU280-VRMP	MOUR-02	S Curve Road	B
Mousam River-SMU144-VRMP	MOUR-03	Whicher's Hill Road	B
Mousam River-SMU80-KMA	MOUR-04	Mill Street	B
Mousam River-SMU39-VRMP	MOUR-05	Berry Ct.	B
Mousam River-SMU35-VRMP	MOUR-06	Roger's Pond	SB
Mousam River-SMU04-VRMP	MOUR-07	Route 9 Bridge	SB
Back Creek-SMUBC02-VRMP	MOUR-08	Above Parson's Beach	SB
Mousam River-SMU163-VRMP	MOUR-09	Route 4	C
Mousam River-SMU204-VRMP	MOUR-10	New Dam Road	C
Littlefield River-SMUMBLR18-VRMP	LR-01	Back Road	B
Middle Branch Mousam River-SMUMB58-VRMP	MOUSMB-01	Mast Road	B
Middle Branch Mousam River-SMUMB33-VRMP	MOUSMB-02	Swett's Bridge	B

Monitoring was conducted from June through September 1-2 times per month. At each site, the monitors made direct measurements of water temperature and dissolved oxygen using a handheld YSI 550A meter. Conductivity was directly measured at the freshwater sites using an Oakton EC 11+ Testr conductivity pen. Samples were collected for *E. coli* bacteria at all the freshwater sites, except for the two headwater sites. Samples for Enterococcus bacteria were collected at two of the sites below head of tide. Bacteria samples were transported to Nelson Labs for analysis.

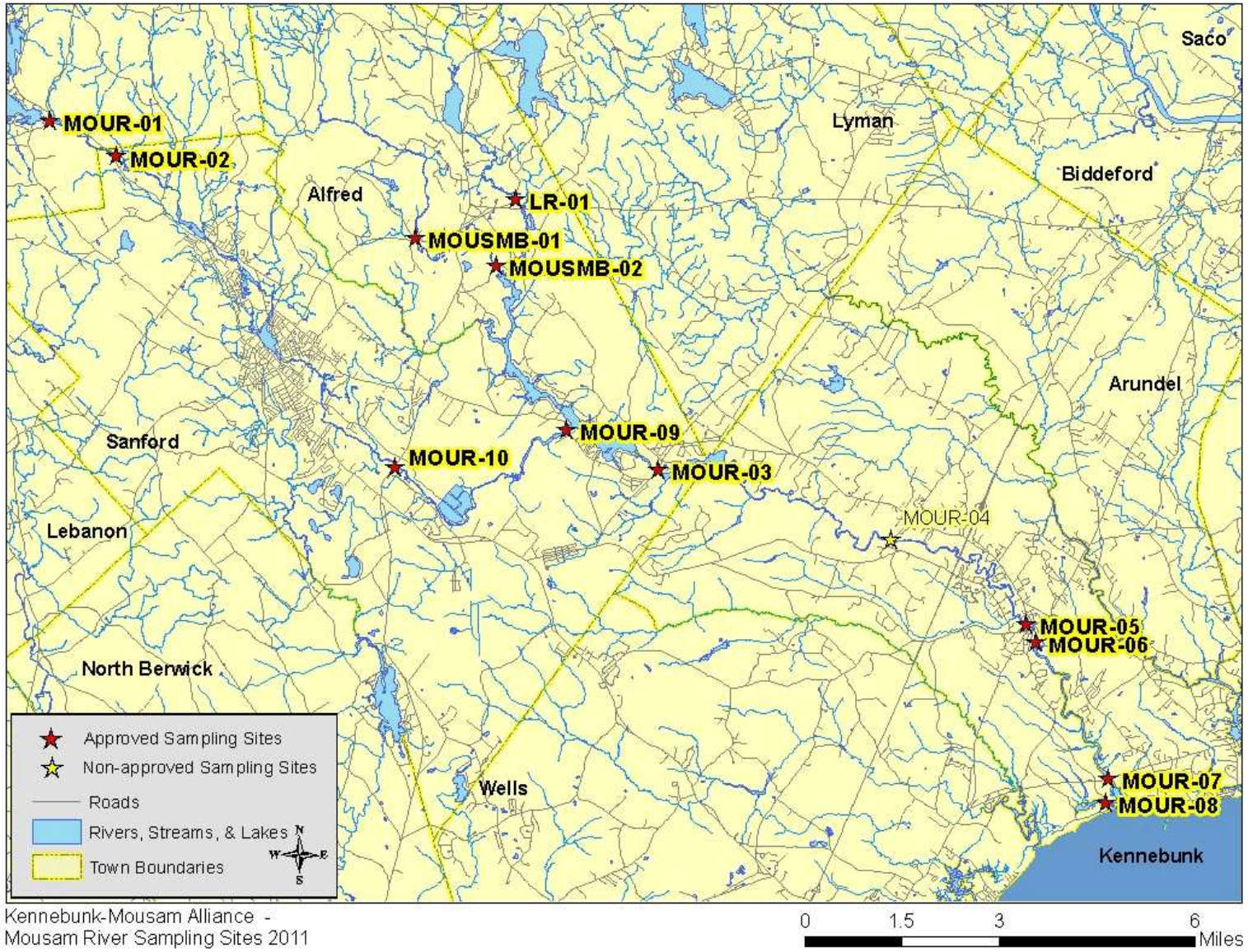

Figure 5-5-1: Map of all Mousam and Kennebunk Rivers Alliance sampling sites on the Mousam River.

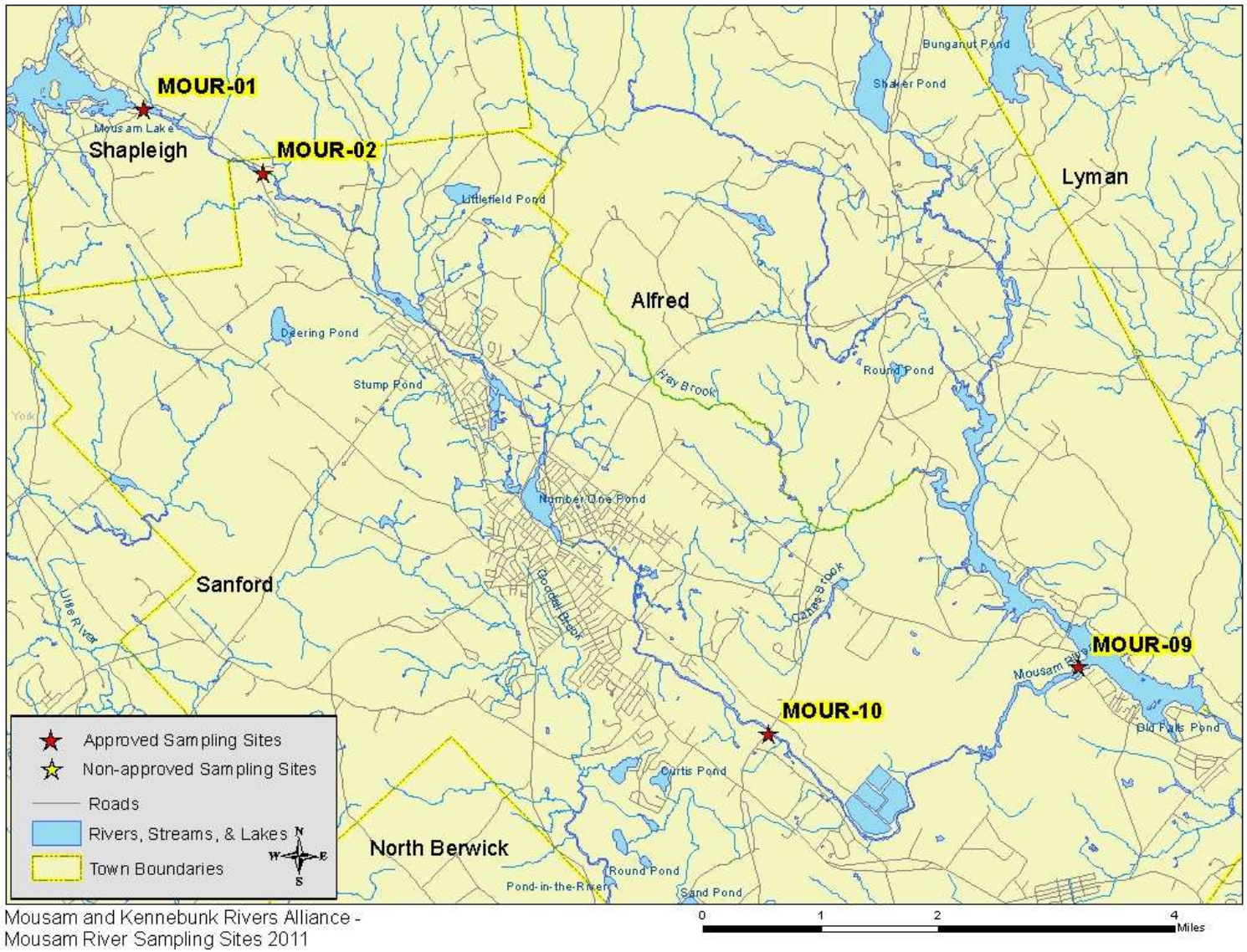

Figure 5-5-2: Map of Mousam and Kennebunk Rivers Alliance sampling sites on the upper Mousam River.

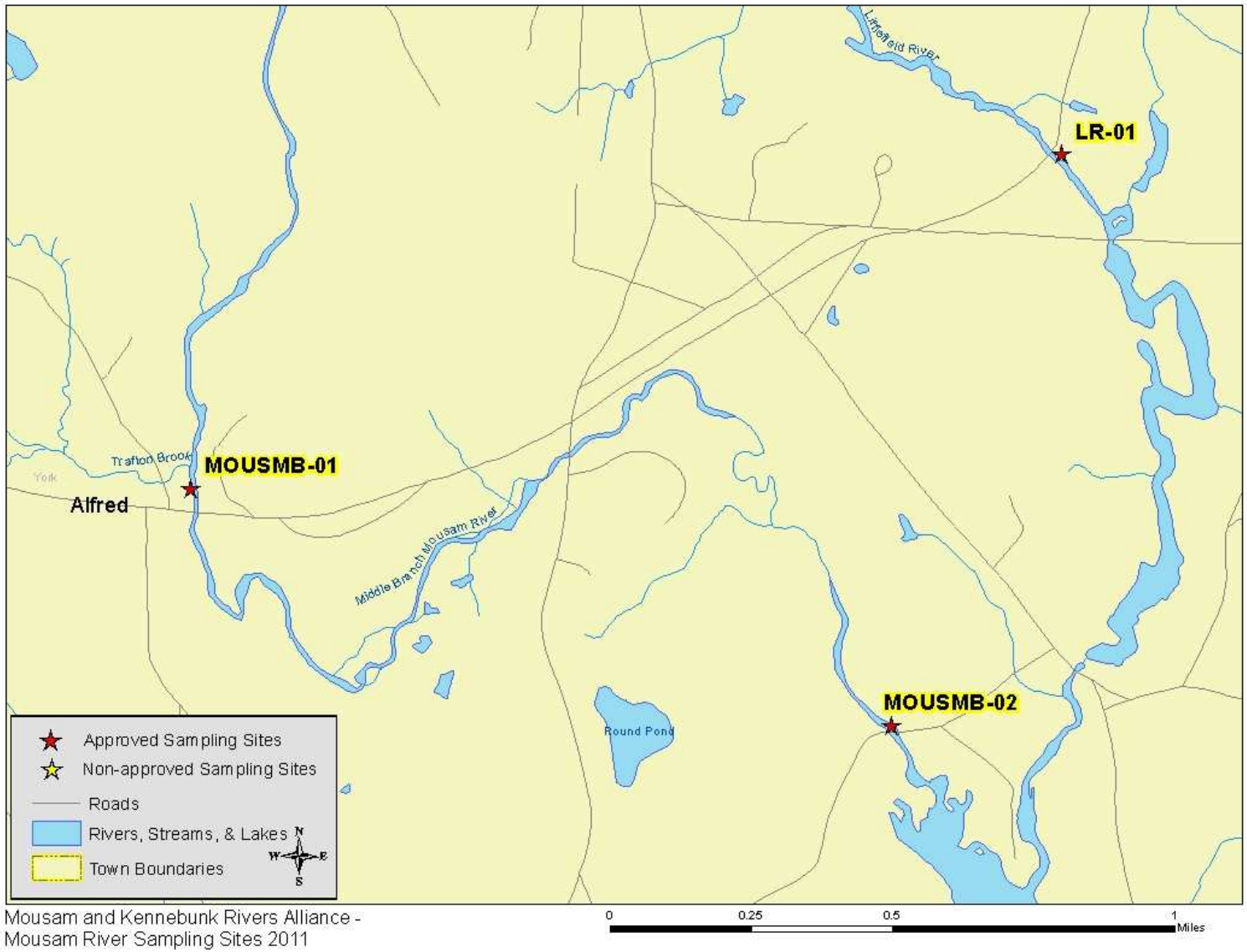

Figure 5-5-3: Map of Mousam and Kennebunk Rivers Alliance sampling sites in the upper branch of the Mousam River.

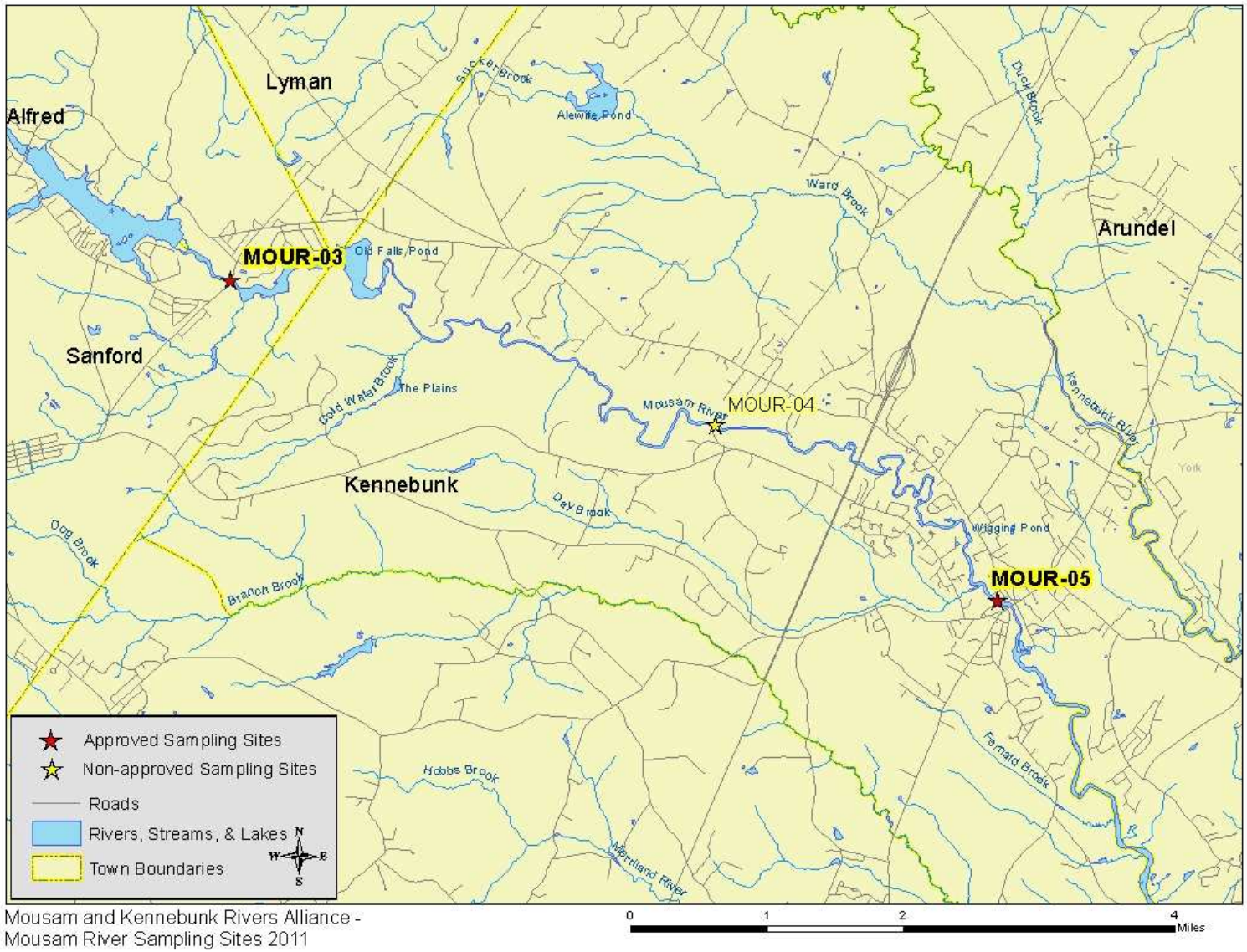

Figure 5-5-4: Map of Mousam and Kennebunk Rivers Alliance sampling sites in the mid-section of the Mousam River.

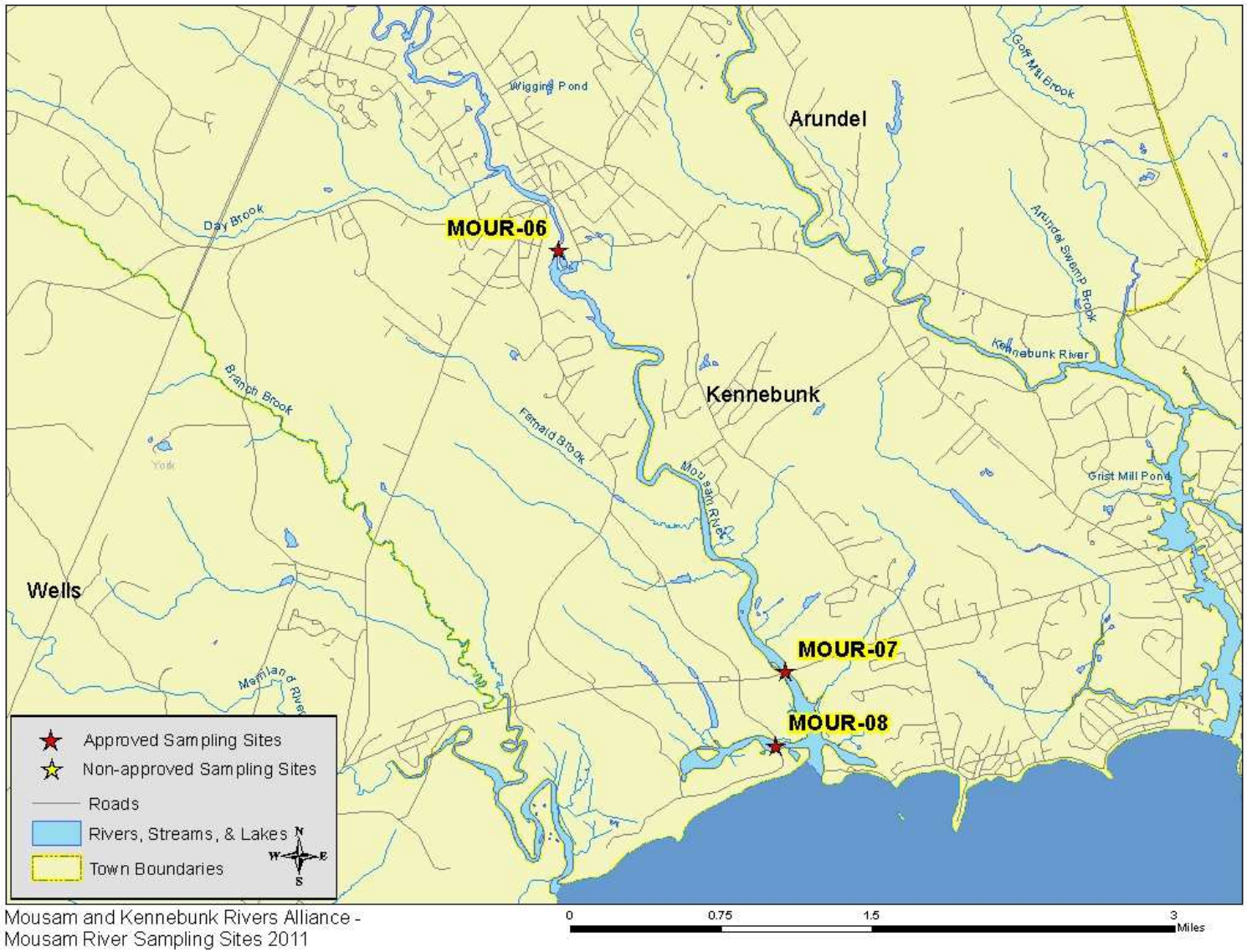

Figure 5-5-5: Map of Mousam and Kennebunk Rivers Alliance tidal sampling sites on the Mousam River.

Results

For the purpose of discussion, the sampling stations were divided into upper (MOUR-01, MOUR-02, MOUR-09, MOUR-10), middle (MOUR-03, MOUR-04, MOUR-05), tidal (MOUR-06, MOUR-07, MOUR-08) and upper branches (MOUSMB-01, MOUSMB-02, LR-01). Refer to appendices A-1 and A-2 in discussion of individual site data and trends, as well as graphed data (Figures 5-5-7 through 5-5-25) and data graphed by river mile (Figures 5-6-26 through 5-5-30), at the end of this section of the report.

Dissolved Oxygen

Dissolved oxygen (DO) was measured 2-8 times at each of the thirteen sampling sites (Table 5-5-2 and Table 5-5-3). Monitoring occurred from June through September. 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. Class SB standards are 85% saturation.

Table 5-5-2: A summary of minimum, maximum, and average dissolved oxygen concentration (mg/l) values for Mousam and Kennebunk Rivers Alliance monitoring sites on the Mousam River.

Site	Approved Site	# of Samples	Minimum Value	Maximum Value	Average Value
MOUR-01	Y	9	7.4	8.9	8.2
MOUR-02	Y	9	7.2	8.9	8.1
MOUR-03	Y	7	8.0	8.9	8.4
MOUR-04	N	6	6.4	8.5	7.2
MOUR-05	Y	6	6.8	8.2	7.4
MOUR-06	Y	6	8.5	9.2	8.8
MOUR-07	Y	6	8.9	10.7	9.5
MOUR-08	Y	6	8.7	10.2	9.5
MOUR-09	Y	7	6.2	8.5	7.3
MOUR-10	Y	7	7.0	8.9	7.6
LR-01	Y	7	3.4	6.7	4.9
MOUSMB-01	Y	7	6.7	9.2	7.8
MOUSMB-02	Y	7	7.2	8.7	7.7

Table 5-5-3: A summary of minimum, maximum, and average dissolved oxygen saturation (%) values for Mousam and Kennebunk Rivers Alliance monitoring sites on the Mousam River.

Site	Approved Site	# of Samples	Minimum Value	Maximum Value	Average Value
MOUR-01	Y	9	88.6	97.7	95.0
MOUR-02	Y	9	87.4	97.2	93.6
MOUR-03	Y	7	92.0	107.1	96.2
MOUR-04	N	6	72.0	102.2	82.0
MOUR-05	Y	6	77.2	90.5	83.1
MOUR-06	Y	6	91.9	99.6	97.0
MOUR-07	Y	6	96.6	106.2	101.5
MOUR-08	Y	6	93.6	105.8	99.0
MOUR-09	Y	7	73.4	96.4	82.3
MOUR-10	Y	7	75.7	107.0	88.4
LR-01	Y	7	37.8	77.0	56.7
MOUSMB-01	Y	7	75.6	92.8	83.6
MOUSMB-02	Y	7	76.2	88.2	81.1

In the upper part of the Mousam River main stem (Sites MOUR-01, MOUR-02, MOUR-09, MOUR-10), dissolved oxygen concentrations ranged from 6.2-8.9 mg/l. Sites MOUR-01 and MOUR-02 were similar with lowest values occurring between early July and early August. Dissolved oxygen never dropped below the Class B standard of 7.0 mg/l. Site MOUR-09 had lowest values in August. This site had a wider range of values, but did not drop below the Class C standard. Site MOUR-10 had lowest values in August into early September, but did not drop below the Class C standard. Dissolved oxygen percent saturation ranged from 73.4-107%. It did not go below the Class B or C standard for any of these sites.

In the middle part of the Mousam River main stem (Sites MOUR-03, MOUR-04, MOUR-05), DO ranged from 6.4-8.9 mg/l. Site MOUR-03 had the lowest values in August. Sites MOUR-04 and MOUR-05 were similar in that values went up and down throughout the season. Dissolved oxygen dropped below the Class B standard on three dates at site MOUR-04 and on one date (mid-August) at site MOUR-05. Dissolved oxygen percent saturation ranged from 72.0-107.1%. It dropped below the Class B standard at site MOUR-04 on just one occasion in late-June.

For the tidal sites (MOUR-06, MOUR-07, MOUR-08), dissolved oxygen ranged from 8.4-10.7 mg/l. Lowest values for all three sites occurred during the typical July-August season. Dissolved oxygen did not drop below the Class SB standard of 85% saturation for any of these sites.

For the upper branch (Sites MOUSMB-01, MOUSMB-02, LR-01), dissolved oxygen ranged from 3.4 mg/l -8.7 mg/l. At site MOUSMB-01, lowest values occurred from late June to early August. Dissolved oxygen dropped below the Class B standard on one date in early-August. At site MOUSMB-02, low values were scattered throughout the sampling season. Site LR-01 was consistently below the Class B standard with values ranging as low as 3.4. Dissolved oxygen saturation for these sites ranged from 37.8-92.8%. MOUSMB-01 and MOUSMB-02 met the standard, but LR-01 consistently did not attain the standard throughout the sampling season.

The monitors did a better job of getting out to sites earlier in the day and should continue to try and get at least some early morning readings (before 8:00 am). Afternoon is the time of day when plant photosynthesis peaks, and DO is at the highest level during any 24-hour period. Early morning monitoring may have provided even lower readings at some of the sites. Dissolved oxygen is also affected by flow conditions. During high flow conditions, more oxygen is added to the river from the atmosphere, as the water is moving faster and there is more opportunity for mixing. If flow during the summer months is higher or lower than generally normal, then this will affect the dissolved oxygen.

Water Temperature

Temperature was measured 6-9 times at each of the thirteen sampling sites (Table 5-5-4). Monitoring occurred from June through September. 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.

Table 5-5-4: A summary of minimum, maximum, and average water temperature (°C) values for Mousam and Kennebunk Rivers Alliance monitoring sites on the Mousam River.

Site	Approved Site	# of Samples	Minimum Value	Maximum Value	Average Value
MOUR-01	Y	9	19.8	26.1	22.6
MOUR-02	Y	9	18.5	25.9	22.1
MOUR-03	Y	7	18.6	24.5	21.9
MOUR-04	N	6	19.8	23.5	21.4
MOUR-05	Y	6	19.2	23.7	21.0
MOUR-06	Y	6	19.1	23.2	21.0
MOUR-07	Y	6	15.2	18.1	16.7
MOUR-08	Y	6	13.0	18.0	16.1
MOUR-09	Y	7	18.0	23.5	21.3
MOUR-10	Y	7	18.3	25.1	22.9
LR-01	Y	7	17.7	23.9	21.6
MOUSMB-01	Y	7	16.0	21.8	19.1
MOUSMB-02	Y	7	16.1	18.9	17.9

In the upper part of the Mousam River main stem (Sites MOUR-01, MOUR-02, MOUR-09, MOUR-10), temperatures ranged from 18.0˚ to 25.9˚C (Celsius). Site MOUR-01 had high temperature, ranging from 19.8-26.1˚C from early June to late September. Site MOUR-02 was similar with temperature ranging from 18.5-25.9˚C from early June to late September. Temperatures at Sites MOUR-09 and MOUR-10 were also high with temperature ranging from

18.0-23.5˚C at Site MOUR-09 and 18.3-25.1˚C at Site MOUR-10, from early-June to late September.

In the middle part of the Mousam River main stem (Sites MOUR-03, MOUR-04, MOUR-05), temperatures ranged from 18.6-24.5˚C. All these sites were high through part or most of the summer. At Site MOUR-03, temperatures were from 18.6-24.5˚C from early June to late September. Site MOUR-04 had temperatures from 19.8-23.5˚C and Site MOUR-05 had temperatures from 19.2-23.7˚C from early June to late September.

For the tidal sites (MOUR-06, MOUR-07, MOUR-08), temperatures ranged from 13.0-23.2˚C. Site MOUR-06 had the highest temperatures and from early June to late September ranged from 19.1-23.2˚C. Sites MOUR-07 and MOUR-08 had lower temperatures with average temperature 16.7 and 16.1˚C. Neither site exceeded 20.0˚C during the sampling season.

For the upper branch (Sites MOUSMB-01, MOUSMB-02, LR-01), temperatures ranged from 16.0-23.9˚C. Site MOUSMB-01 temperatures ranged from 16.0-21.8˚C during the sampling season. Site MOUSMB-02 had lower temperatures and never exceeded 20.0˚C during the sampling season. Site LR-01 ranged between 17.7-23.9˚C during the sampling season.

Specific Conductance

Specific conductance was measured 6-9 times at each of the ten freshwater sampling sites (Table 5-5-5). Monitoring occurred from June through September. 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.

Specific conductance at all the sites was relatively low. Values below 100 µS/cm are considered to be low. In the upper part of the Mousam River main stem (Sites MOUR-01, MOUR-02, MOUR-09, MOUR-10), the highest values occurred at Site MOUR-10 with values ranging from 101.8-158.5 µS/cm. The middle part of the Mousam River main stem (Sites MOUR-03, MOUR-04, MOUR-05) sites were all similar. For the upper branch (Sites MOUSMB-01, MOUSMB-02, LR-01), the highest values occurred at Site MOUSMB-02. LR-01 averaged slightly higher (102.8)readings than the other two sites.

Table 5-5-5: A summary of minimum, maximum, and average specific conductance (µS/cm) values for Mousam and Kennebunk Rivers Alliance monitoring sites on the Mousam River.

Site	Approved Site	# of Samples	Minimum Value	Maximum Value	Average Value
MOUR-01	Y	9	56.4	63.5	59.3
MOUR-02	Y	9	55.0	61.7	58.9
MOUR-03	Y	7	100.9	129.0	113.4
MOUR-04	N	6	70.6	111.1	96.9
MOUR-05	Y	6	82.2	119.3	105.5
MOUR-06	Y				NA-Tidal
MOUR-07	Y				NA-Tidal
MOUR-08	Y				NA-Tidal
MOUR-09	Y	7	79.8	122.5	100.9
MOUR-10	Y	7	101.8	158.5	125.6
LR-01	Y	7	95.0	114.4	102.8
MOUSMB-01	Y	7	60.7	74.3	66.0
MOUSMB-02	Y	7	60.3	138.0	96.2

Bacteria

Escherichia coli bacteria were sampled 4-8 times at eight of the freshwater sites (Table 5-5-6). Enterococcus bacteria were sampled 3-5 times at two of the tidal sites (Table 5-5-6). Monitoring occurred from June through September. Most of the samples were taken during baseflow conditions. Sites MOUR-04, MOUR-06, MOUR-09, and MOUR-10 were sampled once during stormflow conditions. Enterococcus bacteria are used as the indicator organism for marine waters and *E. coli* bacteria are used for freshwaters. 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 B 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 64/100 ml (milliliters) or an instantaneous level of 236/100 ml." Class C criteria are: "Between May 15th and September 30th, the number of 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 SB criteria are as follows: "Between May 15th and September 30th, the numbers of enterococcus bacteria of human and domestic animal origin in these waters may not exceed a geometric mean of 8 per 100 milliliters or an instantaneous level of 54 per 100 milliliters." Geometric means are calculated instead of averages because measures like bacteria often have a few very large values that strongly influence the mean and make it a poor predictor.

Table 5-5-6: A summary of minimum, maximum, and geometric means for bacteria (MPN/100 mL) values for Mousam and Kennebunk Rivers Alliance monitoring sites on the Mousam River.

Site	Bacteria Type	# of Samples	Minimum Value	Maximum Value	Geometric Mean
MOUR-01					Not sampled
MOUR-02					Not sampled
MOUR-03	*E. coli*	7	5.0	41.0	15.2
MOUR-04	*E. coli*	6	8.0	31.0	20.7
MOUR-05	*E. coli*	6	33.2	81.0	52.4
MOUR-06	Enterococcus	5	31.0	160.0	50.9
MOUR-07	Enterococcus	3	<10	85.0	51.3
MOUR-08					Not sampled
MOUR-09	*E. coli*	7	22.0	411.0	72.3
MOUR-10	*E. coli*	7	15.0	435.0	39.7
LR-01	*E. coli*	7	3	276	38.4
MOUSMB-01					Not sampled
MOUSMB-02	*E. coli*	7	44.0	866.0	163.9

In the upper part of the Mousam River main stem (Sites MOUR-01, MOUR-02, MOUR-09, MOUR-10), only sites MOUR-09 and MOUR-10 were sampled. Both sites violated Class C instantaneous standard during a storm event on September 30. In the middle part of the Mousam River main stem (Sites MOUR-03, MOUR-04, MOUR-05) none of the sites violated the Class B criteria. The geometric mean was higher at Site MOUR-05 compared to the other two sites, but still below the criterion. For the tidal sites (MOUR-06, MOUR-07, MOUR-08), only sites MOUR-06 and MOUR-07 were sampled. Site MOUR-06 violated the instantaneous criterion on all five sampling dates and MOUR-07 violated instantaneous criterion on two of three sampling dates.

The geometric mean criterion was not violated on either site, but both values were very close to the criterion. For the upper branch (Sites MOUSMB-01, MOUSMB-02, LR-01) only MOUSMB-02 and LR-01 were sampled for bacteria. Results seemed generally higher than the previous year. Site MOUSMB-02 violated the instantaneous criterion on two days and also exceeded the geometric mean criterion. Site LR-01 exceeded the instantaneous criterion during one storm event on September 30, which was also the date for one of the exceedances for site MOUSMB-02. Typically, observed high bacterial levels are often associated with stormwater runoff and/or combined sewer overflows. Rainfall totals at the nearby Sanford weather station (Figure 5-5-6) show seasonal variations along with sampling dates of monitoring stations on the Kennebunk River.

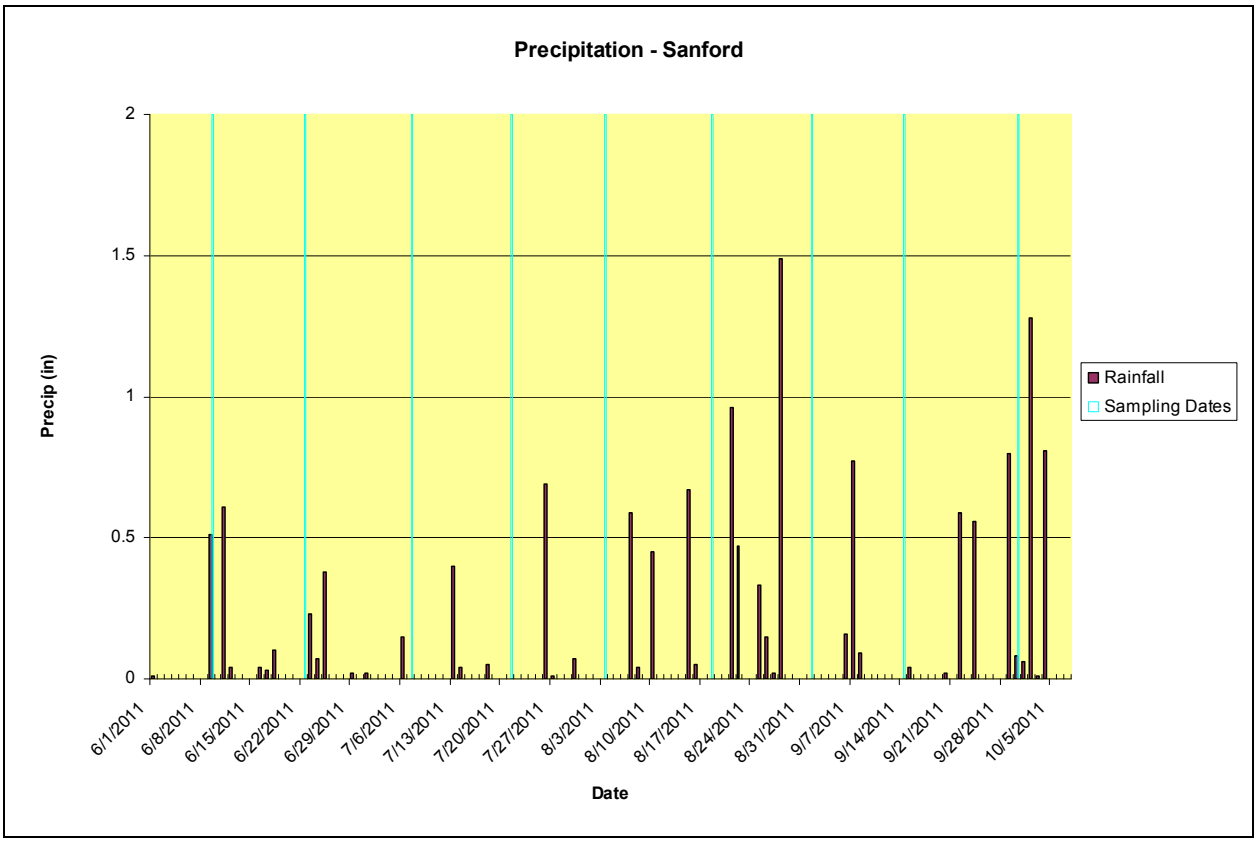

Figure 5-5-6: Seasonal precipitation measured at Sanford.

Discussion and Recommendations

There are numerous sources of pollution and other stresses to the Mousam River and tributary sites monitored by the Mousam and Kennebunk Rivers Alliance 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., septic systems, eroded soil, fertilizers, pesticides, heavy metals, petroleum residues, road salt, wildlife and pet feces) and polluted stormwater originating from urban impervious surfaces (e.g. streets, parking lots, driveways, rooftops) (even though urban development and roads are fairly sparse in the watershed), agriculture, and forestry.
- Point source pollution (pollution originating from a direct discharge including wastewater treatment plant discharge, combined sewer overflows and overboard discharges).
- Ponds and impoundments (which often create more pond-like aquatic habitat conditions that may have higher water temperatures and lower dissolved oxygen concentrations than free-flowing waters)
- Natural effects of wetlands (such as contributing waters to a stream/river that have low dissolved oxygen levels due to the decomposition of larger amounts of organic matter, respiration of abundant plant matter, and low re-aeration rates that is characteristic of many wetlands).

The following are recommendations for future monitoring:

- Dissolved oxygen was low at some of the sites. Site LR-01 should be monitored throughout the season and further investigation made as to whether this is natural. Factors contributing to low dissolved oxygen may include low flow and the site being below extensive wetlands. Occasional mid to late afternoon sampling would help to discriminate whether this is potentially naturally low dissolved oxygen.
- Monitoring should continue to include some early morning (before 8:00 am) sampling to further document potential dissolved oxygen problems. Over a 24 hour period, the lowest readings occur in the early morning and highest readings in mid to late afternoon. This occurs because oxygen is used up during the night due to plant respiration and during the day, plant life is photosynthesizing. This is particularly important during the summer months of July to early September when temperatures are warmest and dissolved oxygen tends to be at the lowest levels.
- Temperature was relatively high in the upper and middle main-stem sites. In the future, we might consider placing temperature loggers at some of these sites to document daily temperature values throughout the season.
- Bacteria sampling showed exceedances at both fresh water and tidal sites. The tidal sites had bacteria violations of both instantaneous criterion and geometric mean criterion. These sites should continue to be monitored and perhaps further investigation made as to the causes of the problem.
- Continue monitoring at all stations to develop a long term trend database.

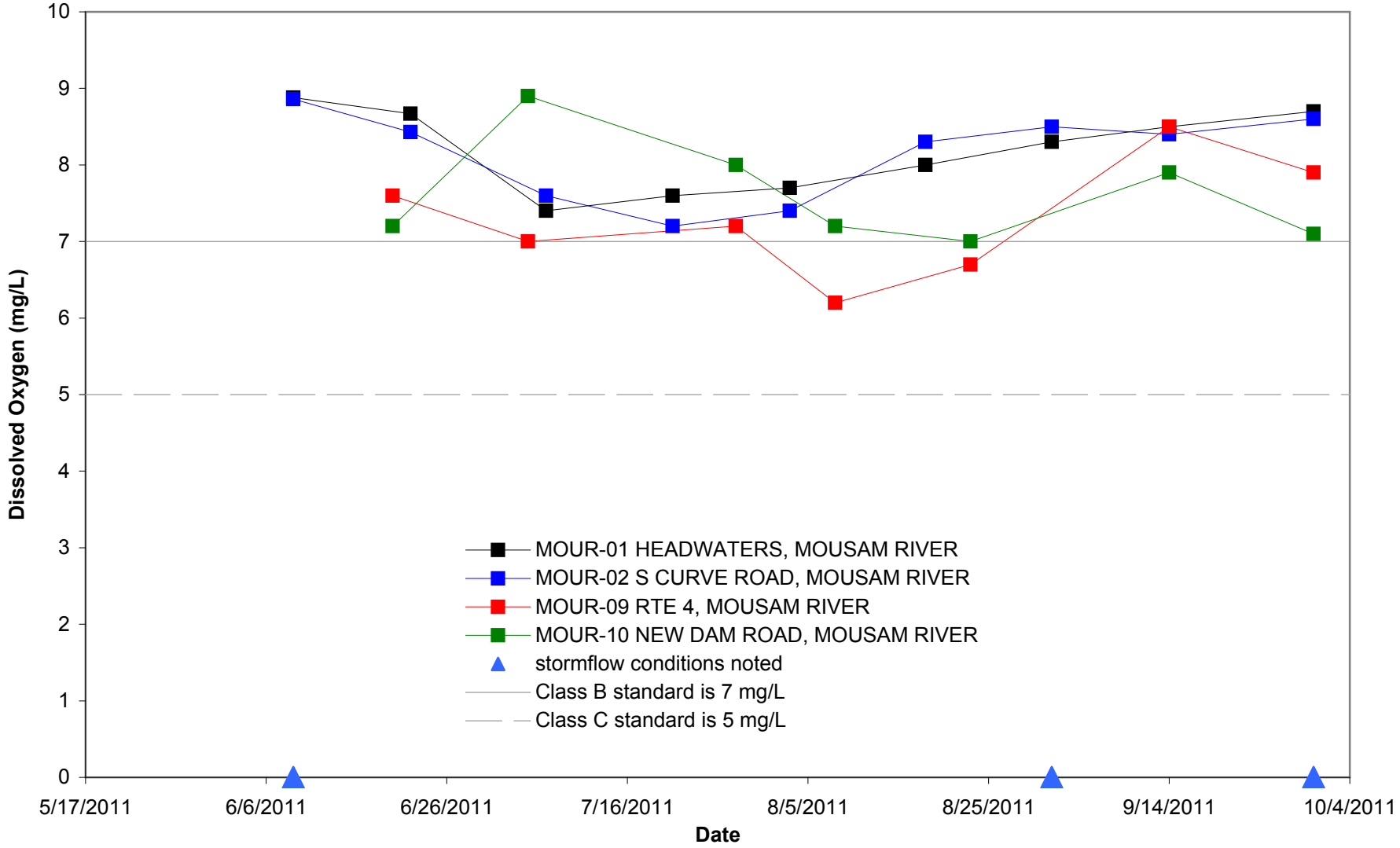

Figure 5-5-7. Dissolved oxygen concentrations at Mousam and Kennebunk River Alliance approved monitoring sites in the upper Mousam River in 2011.

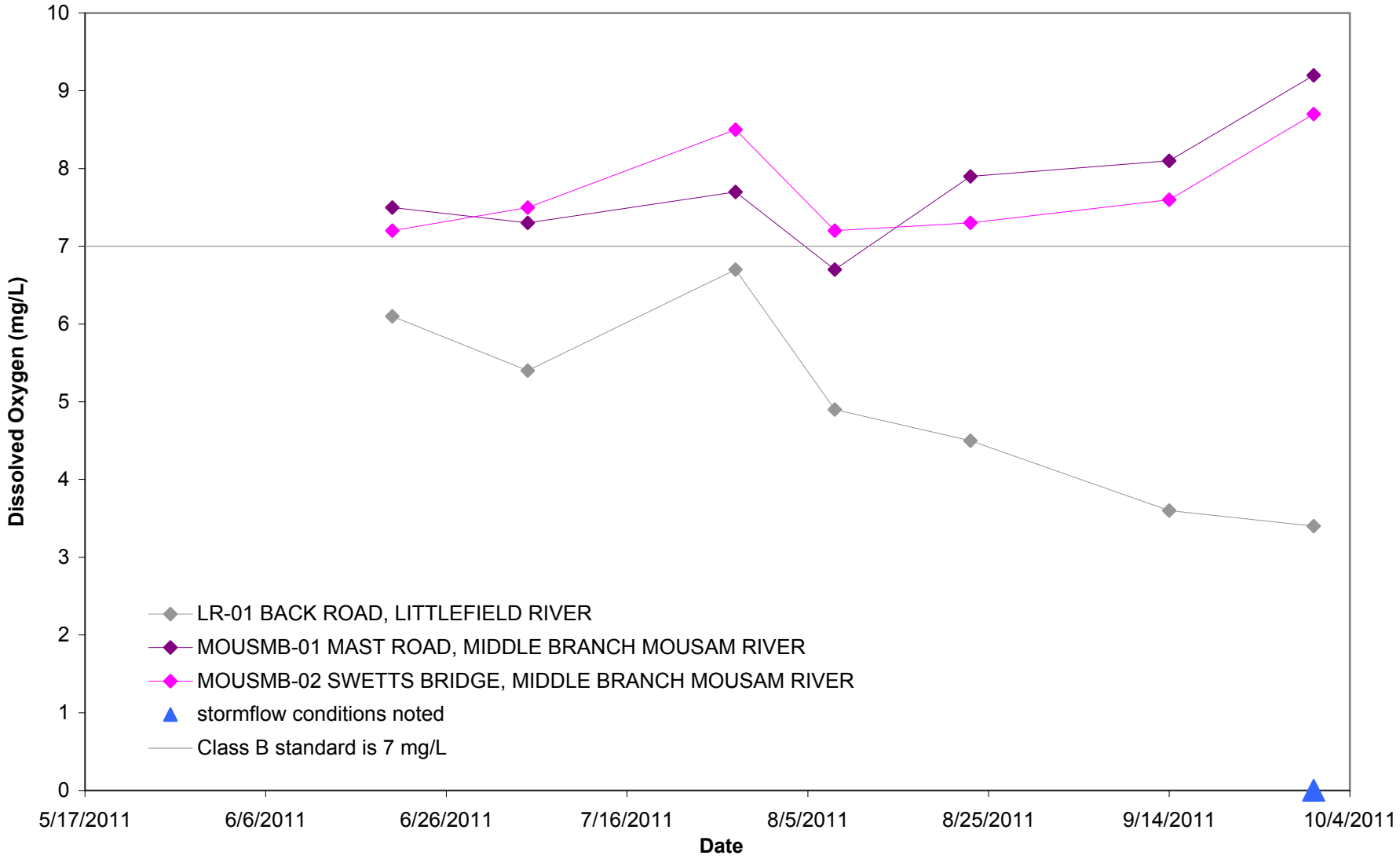

Figure 5-5-8. Dissolved oxygen concentrations at Mousam and Kennebunk River Alliance approved monitoring sites in the upper branch of the Mousam River in 2011.

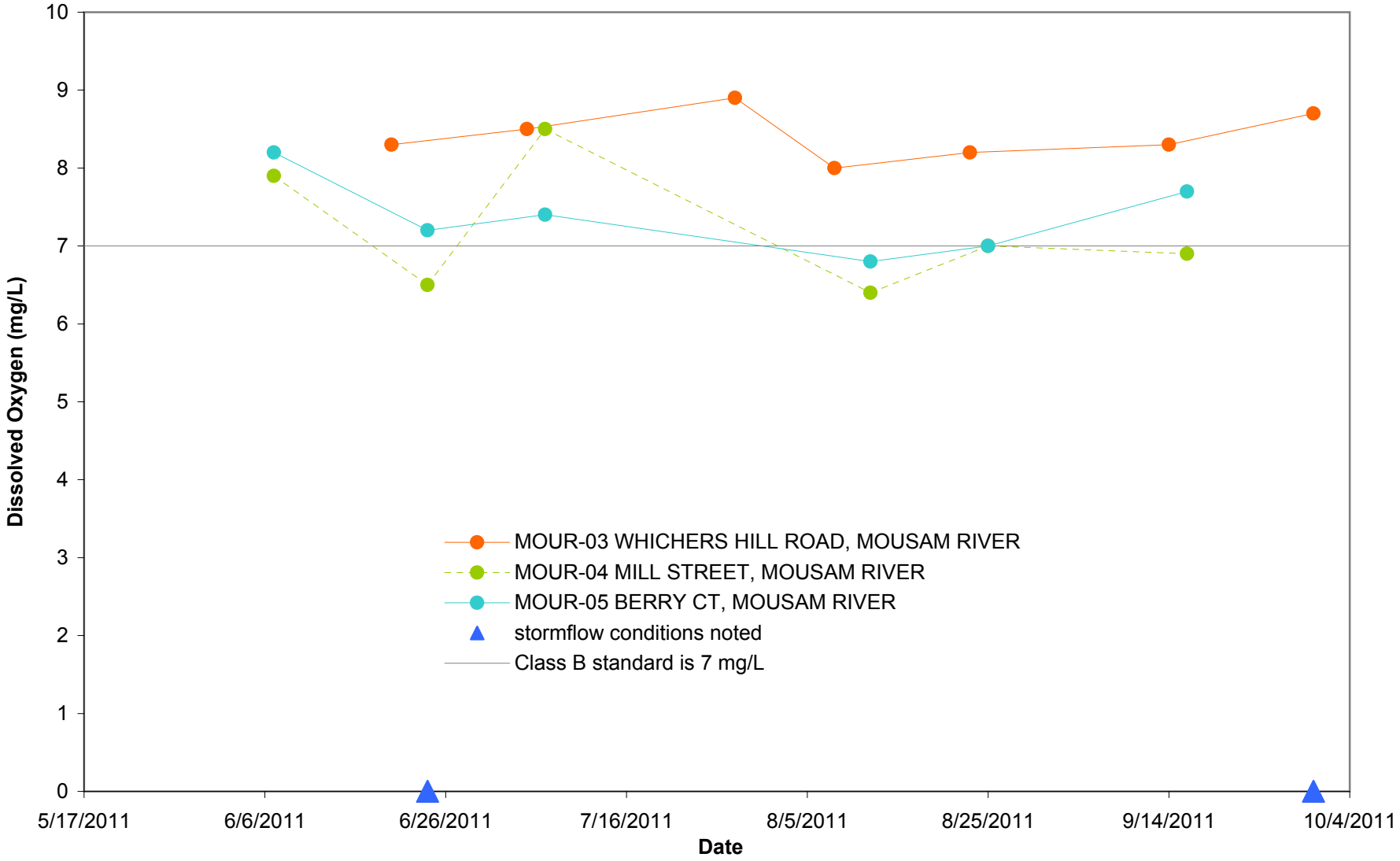

Figure 5-5-9. Dissolved oxygen concentrations at Mousam and Kennebunk River Alliance monitoring sites in the mid-section of the Mousam River in 2011.

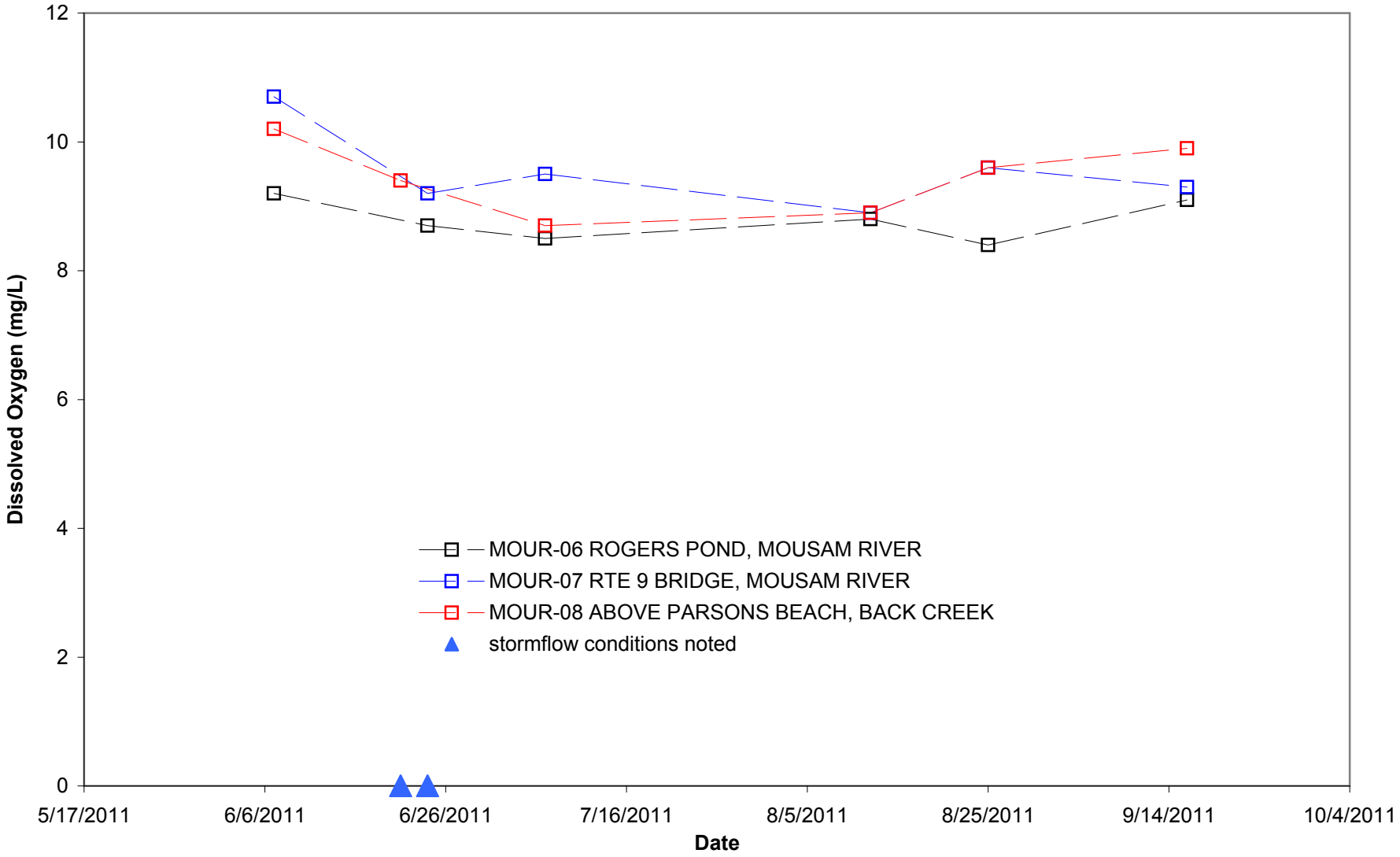

Figure 5-5-10. Dissolved oxygen concentrations at Mousam and Kennebunk River Alliance approved tidal monitoring sites of the Mousam River in 2011.

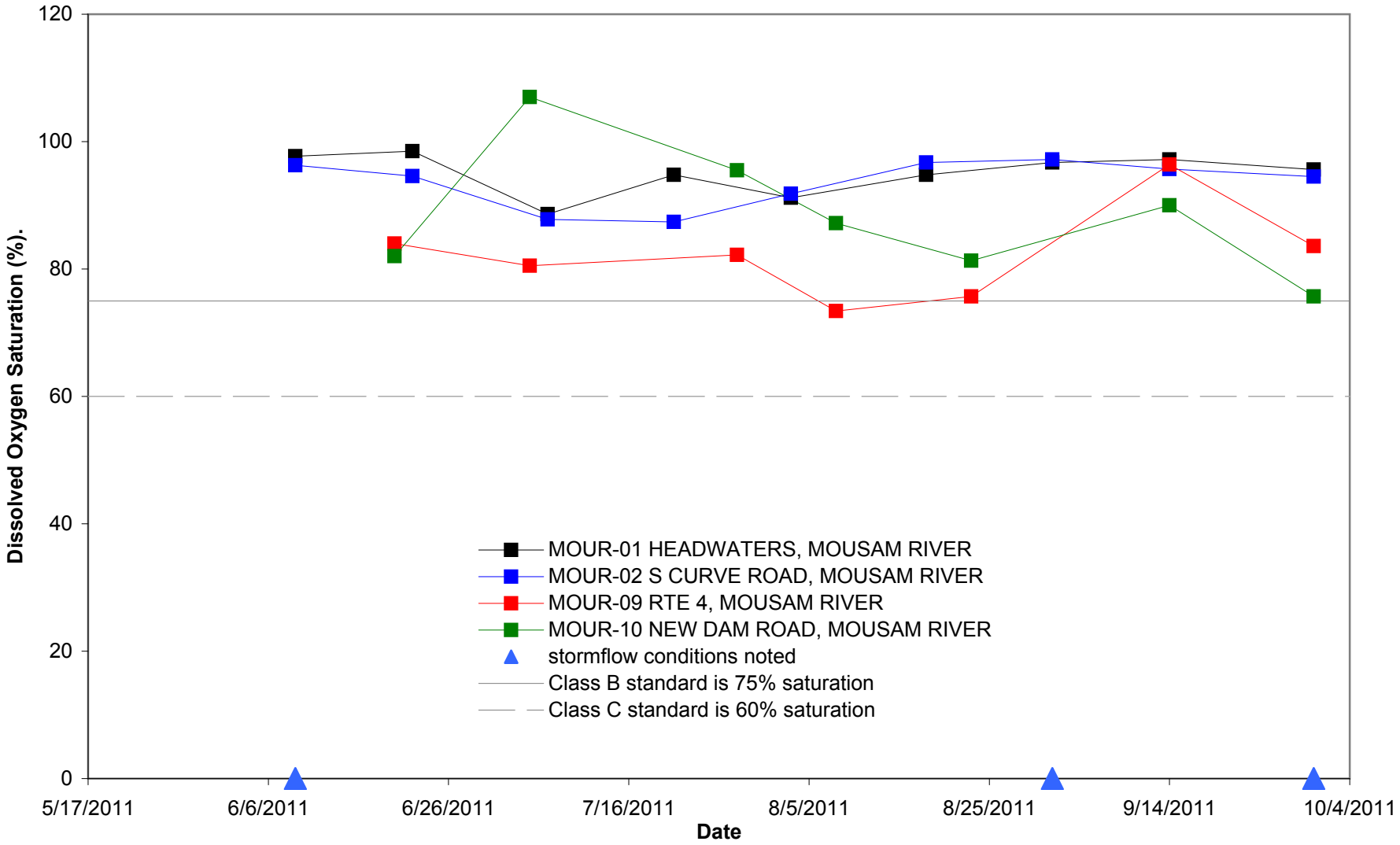

Figure 5-5-11. Dissolved oxygen saturation at Mousam and Kennebunk River Alliance approved monitoring sites in the upper Mousam River in 2011.

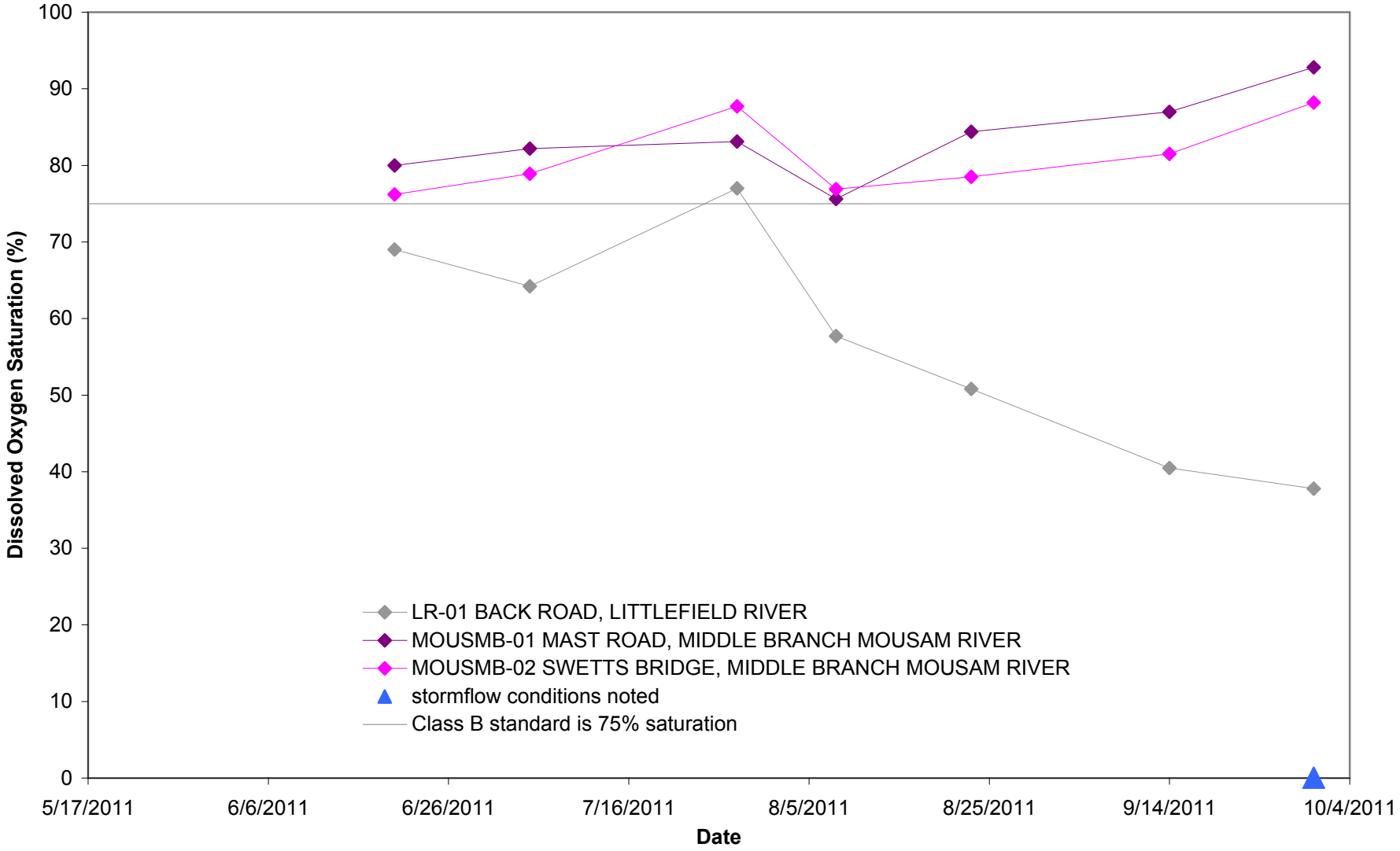

Figure 5-5-12 Dissolved oxygen saturation at Mousam and Kennebunk River Alliance approved monitoring sites in the upper branch of the Mousam River in 2011.

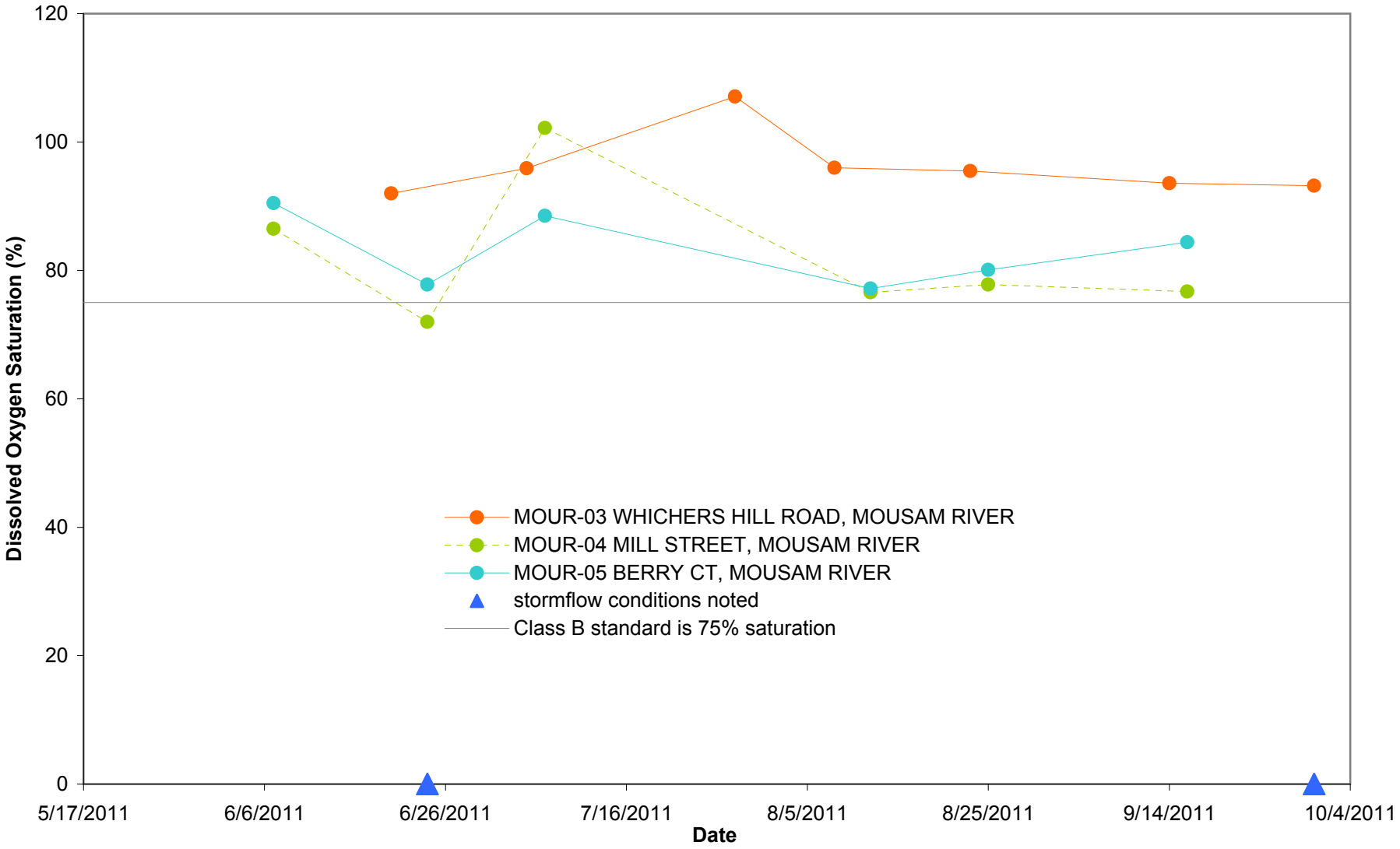

Figure 5-5-13. Dissolved oxygen saturation at Mousam and Kennebunk River Alliance monitoring sites in the mid-section of the Mousam River in 2011.

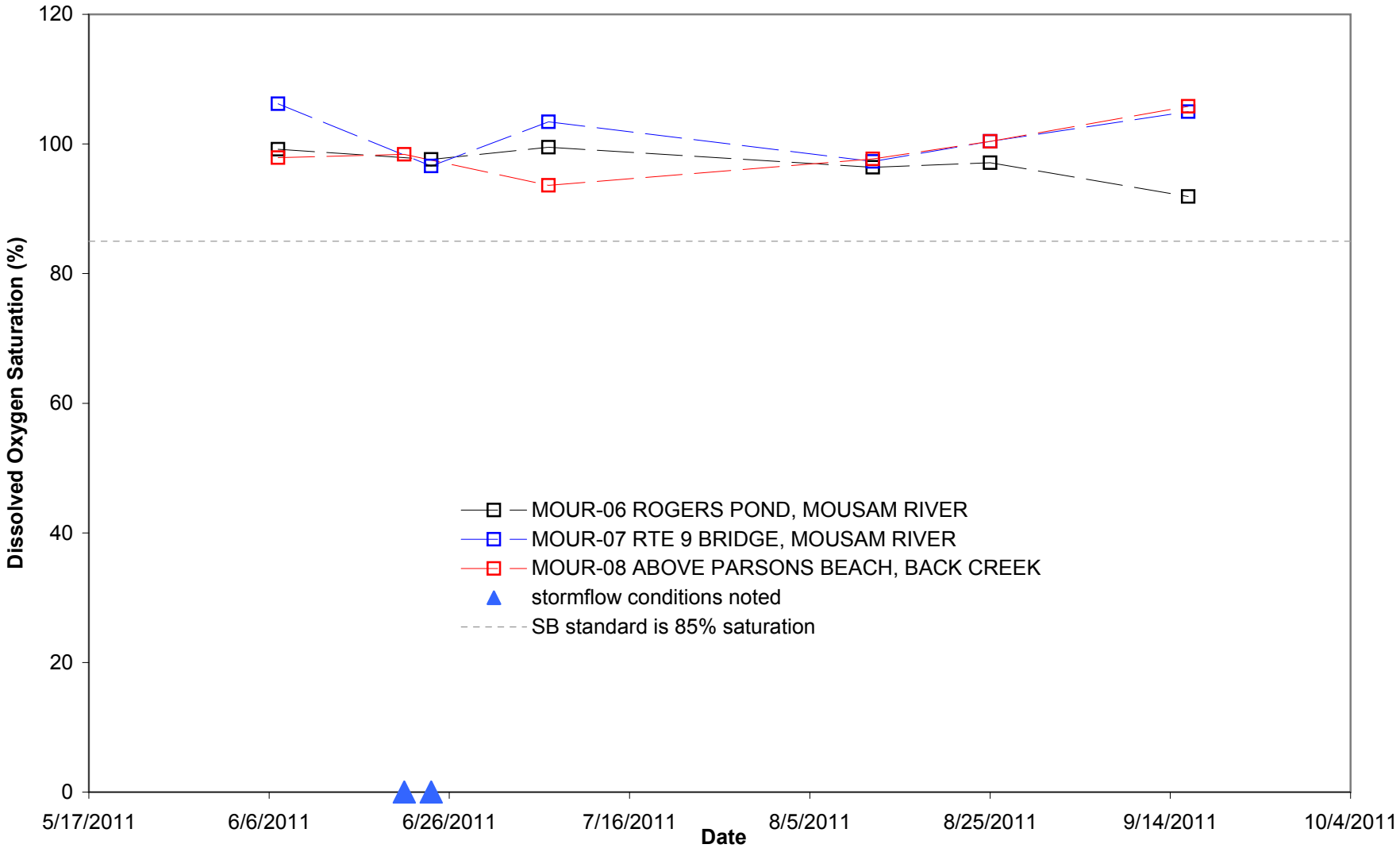

Figure 5-5-14. Dissolved oxygen saturation at Mousam and Kennebunk River Alliance approved tidal monitoring sites of the Mousam River in 2011.

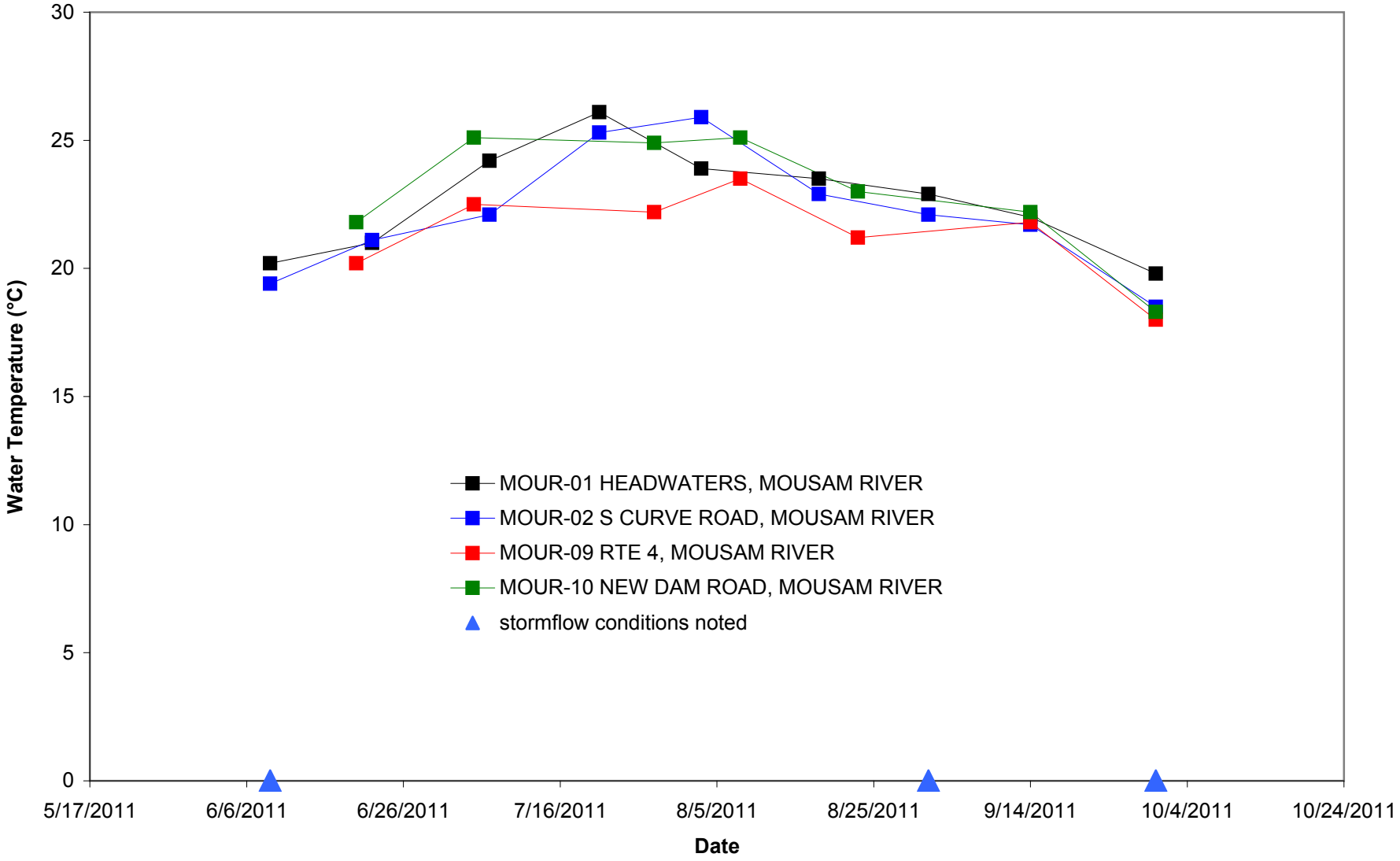

Figure 5-5-15. Water temperature at Mousam and Kennebunk River Alliance approved monitoring sites in the upper Mousam River in 2011.

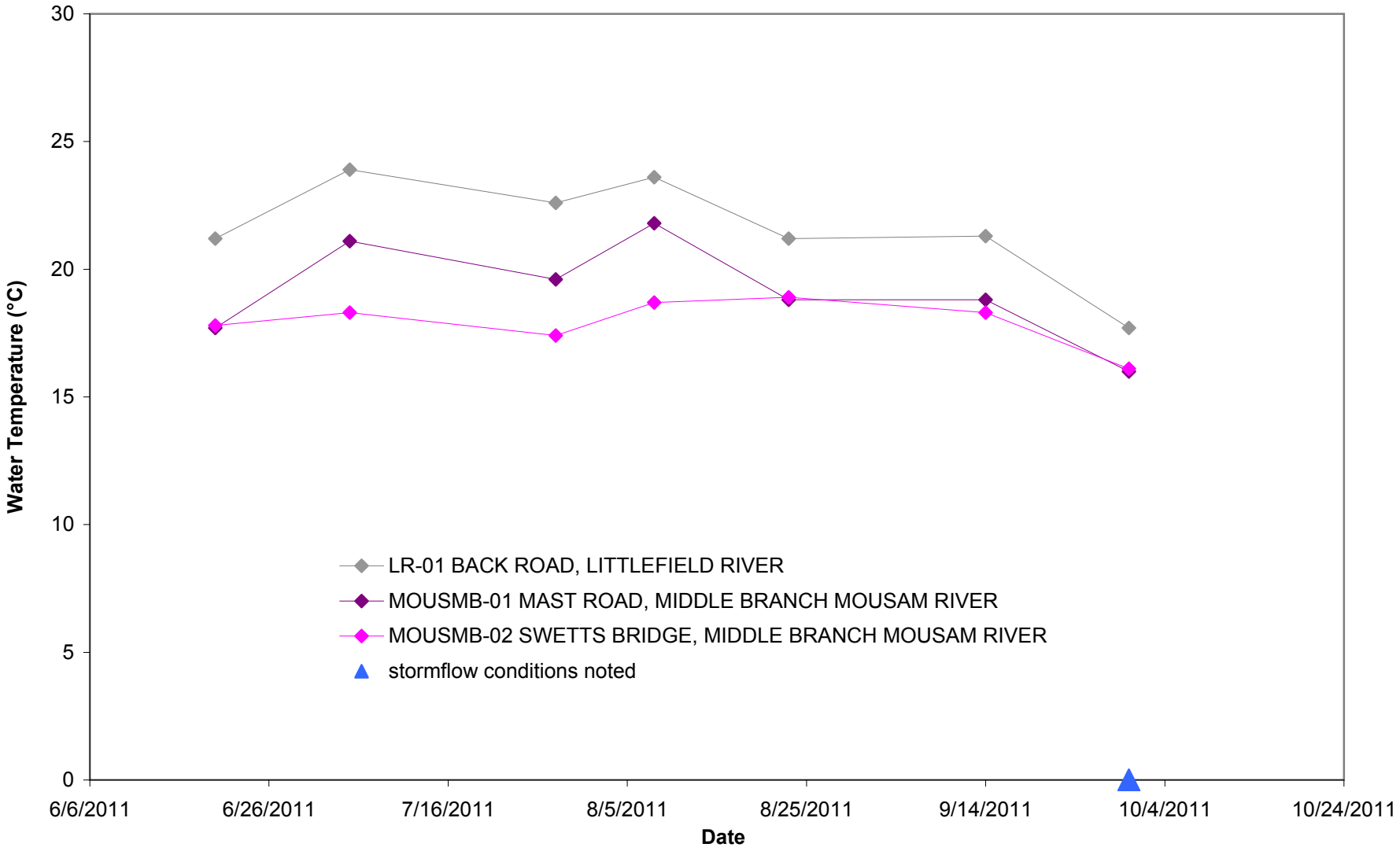

Figure 5-5-16. Water temperature at Mousam and Kennebunk River Alliance approved monitoring sites in the upper branch of the Mousam River in 2011.

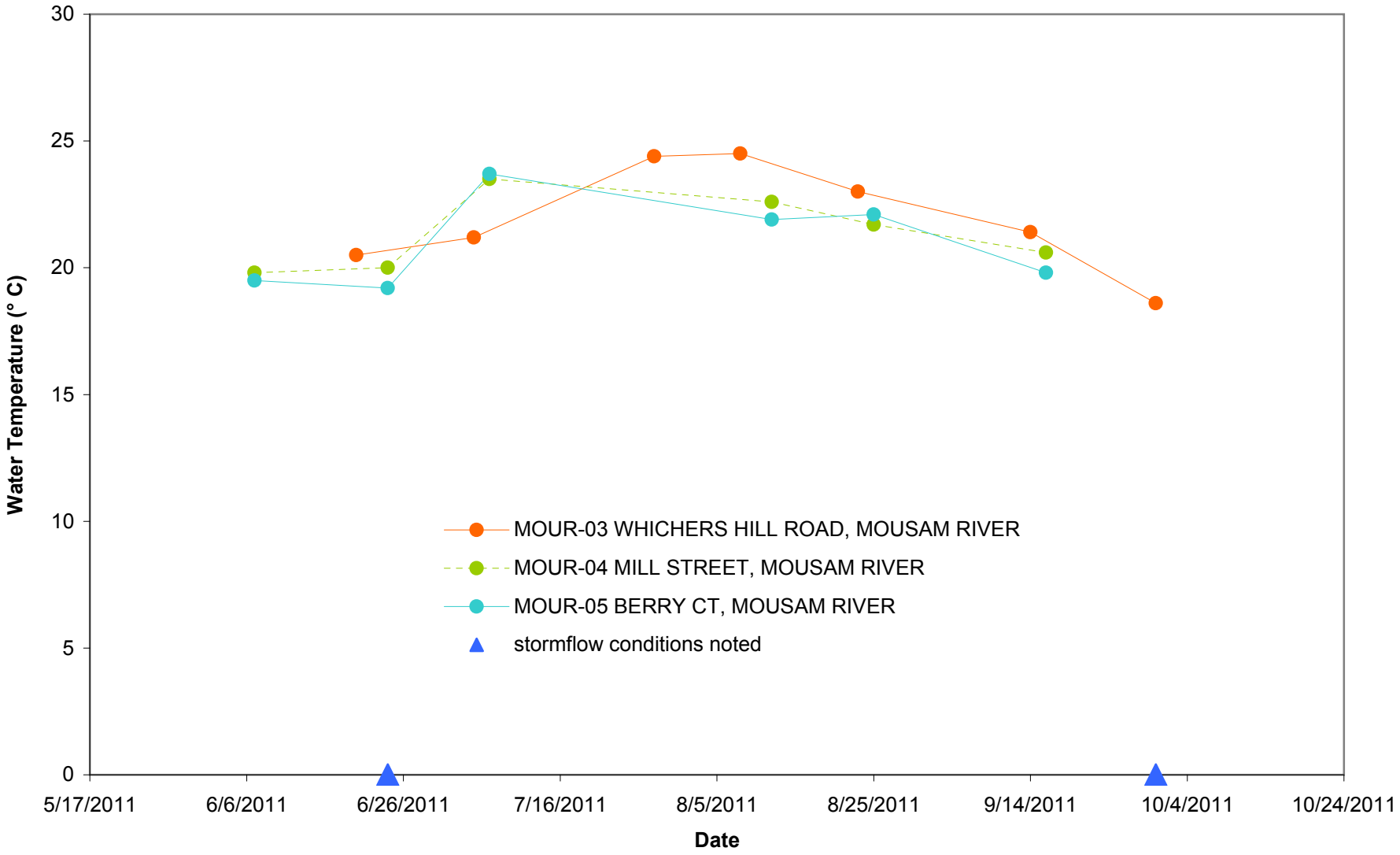

Figure 5-5-17. Water temperature at Mousam and Kennebunk River Alliance monitoring sites in the mid-section of the Mousam River in 2011.

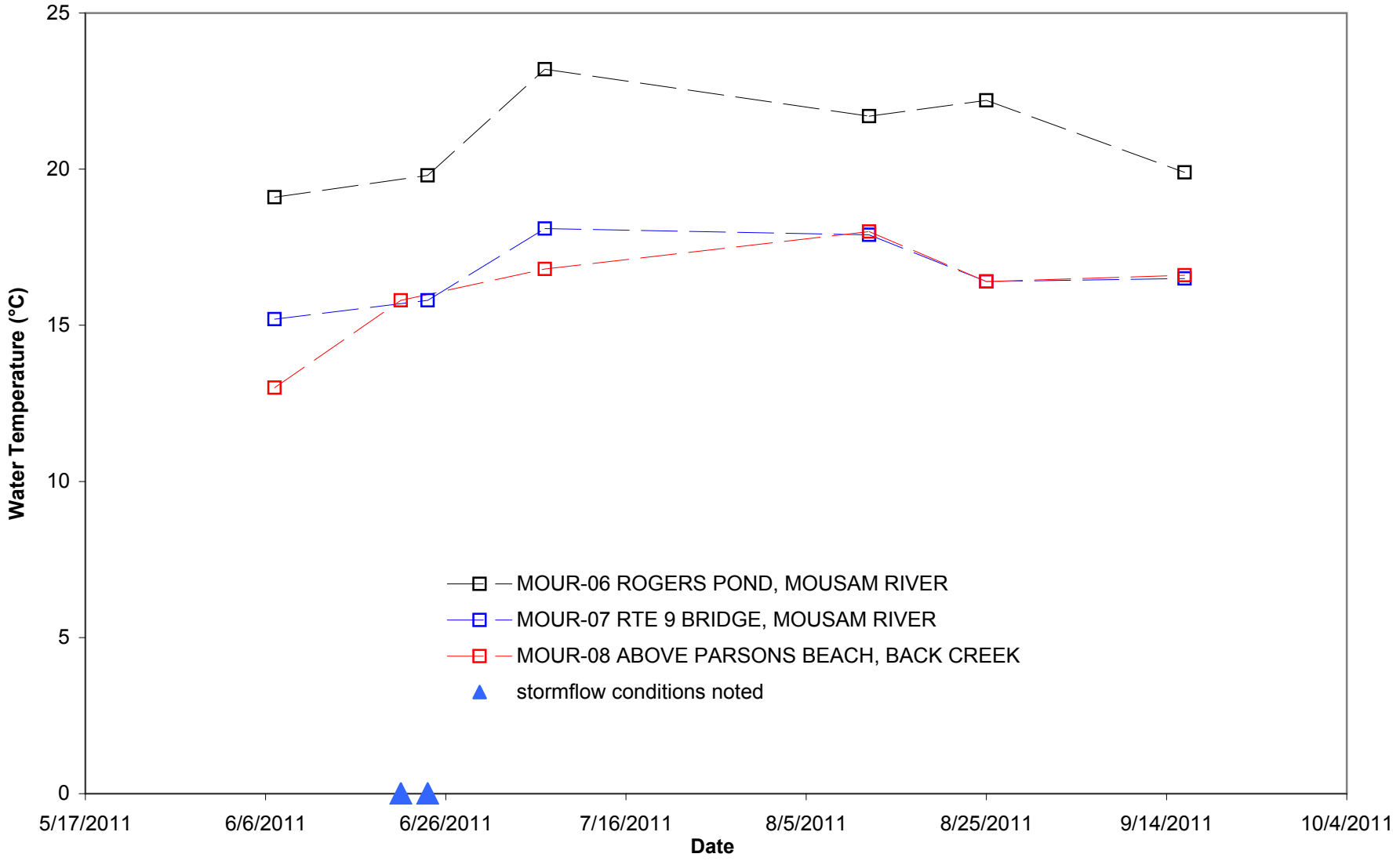

Figure 5-5-18. Water temperature at Mousam and Kennebunk River Alliance approved tidal monitoring sites at Mousam River in 2011.

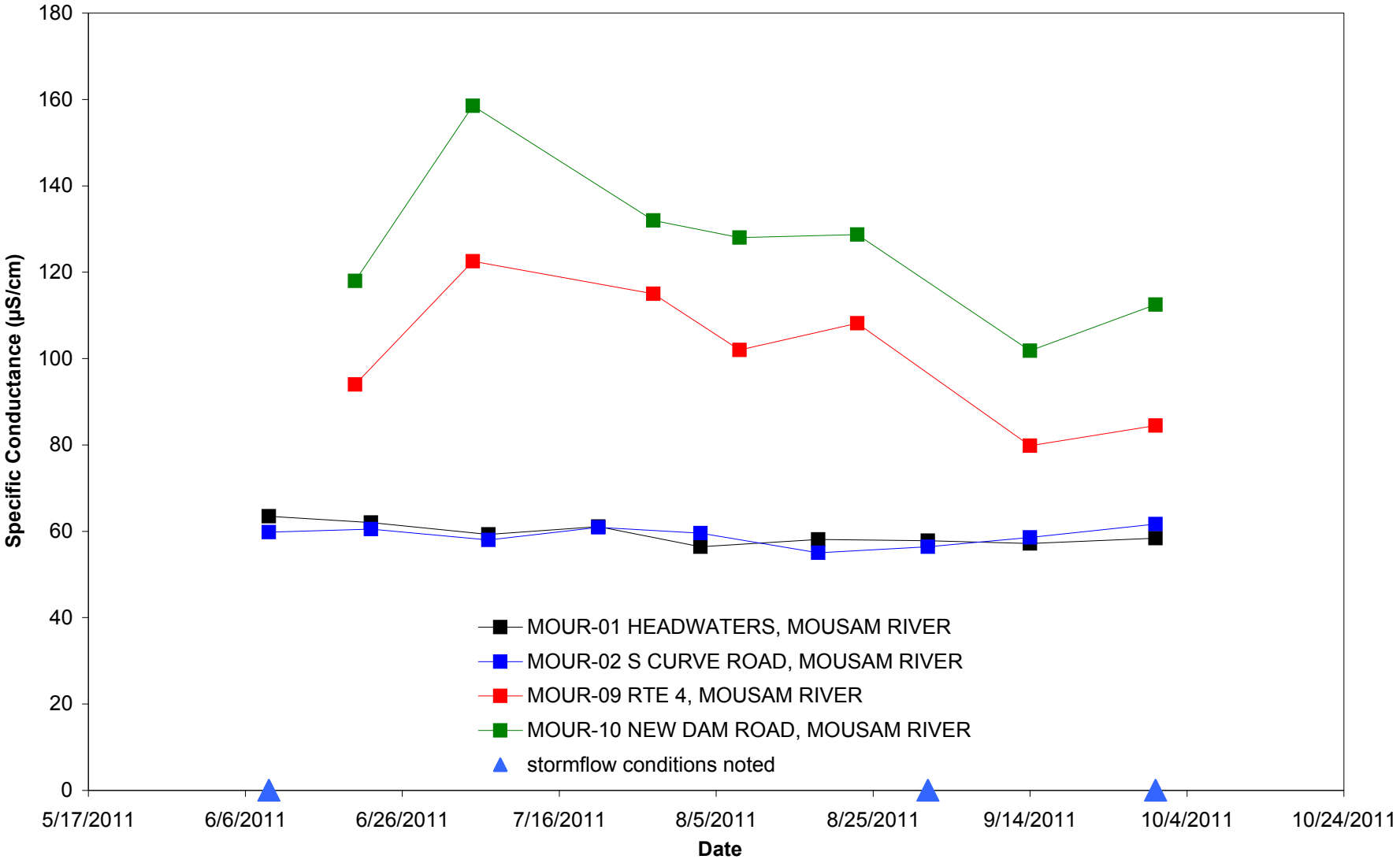

Figure 5-5-19. Specific conductance at Mousam and Kennebunk River Alliance approved monitoring sites in the upper Mousam River in 2011.

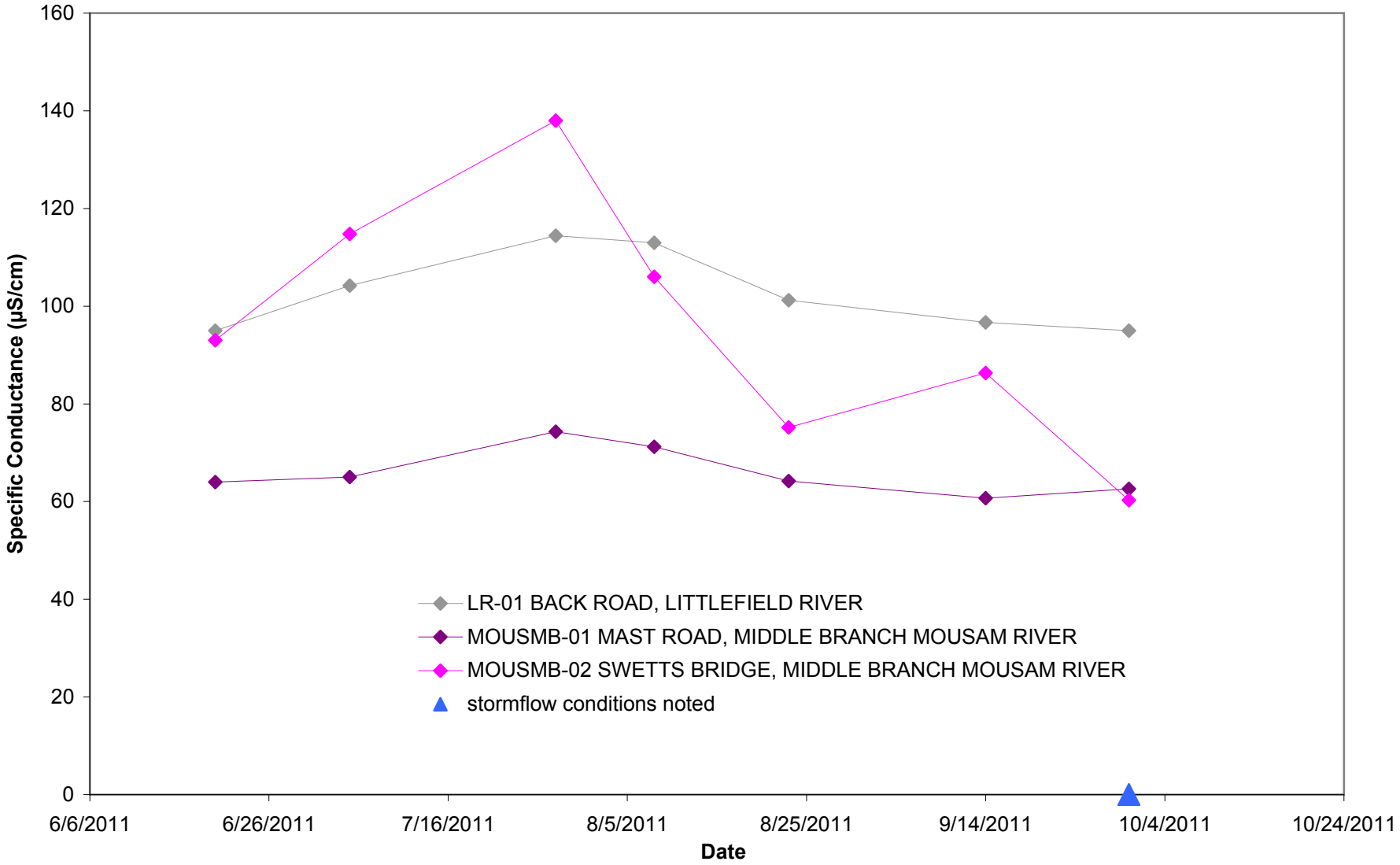

Figure 5-5-20. Specific conductance at Mousam and Kennebunk River Alliance approved monitoring sites in the upper branch of the Mousam River in 2011.

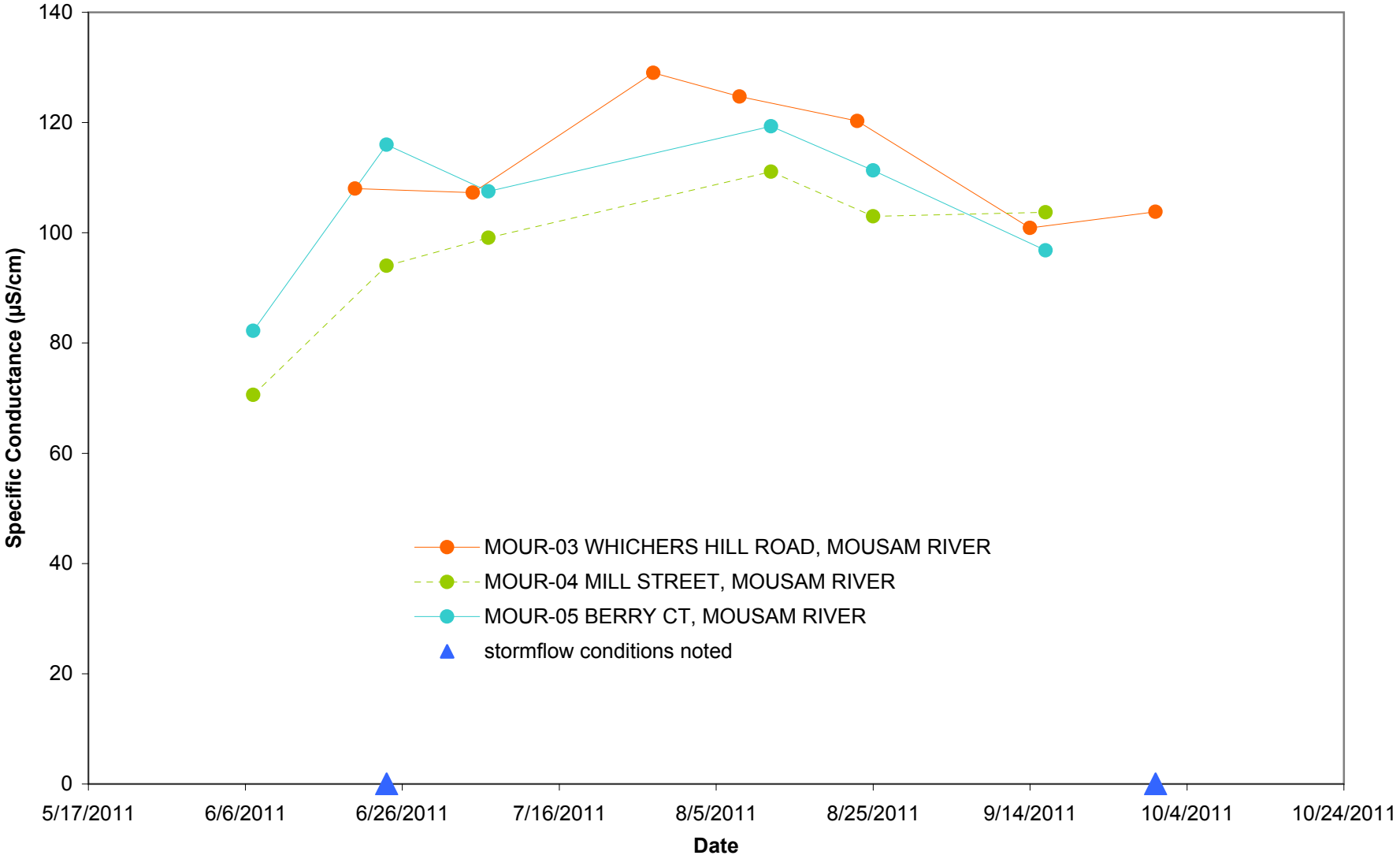

Figure 5-5-21. Specific conductance at Mousam and Kennebunk River Alliance monitoring sites in the mid-section of the Mousam River in 2011.

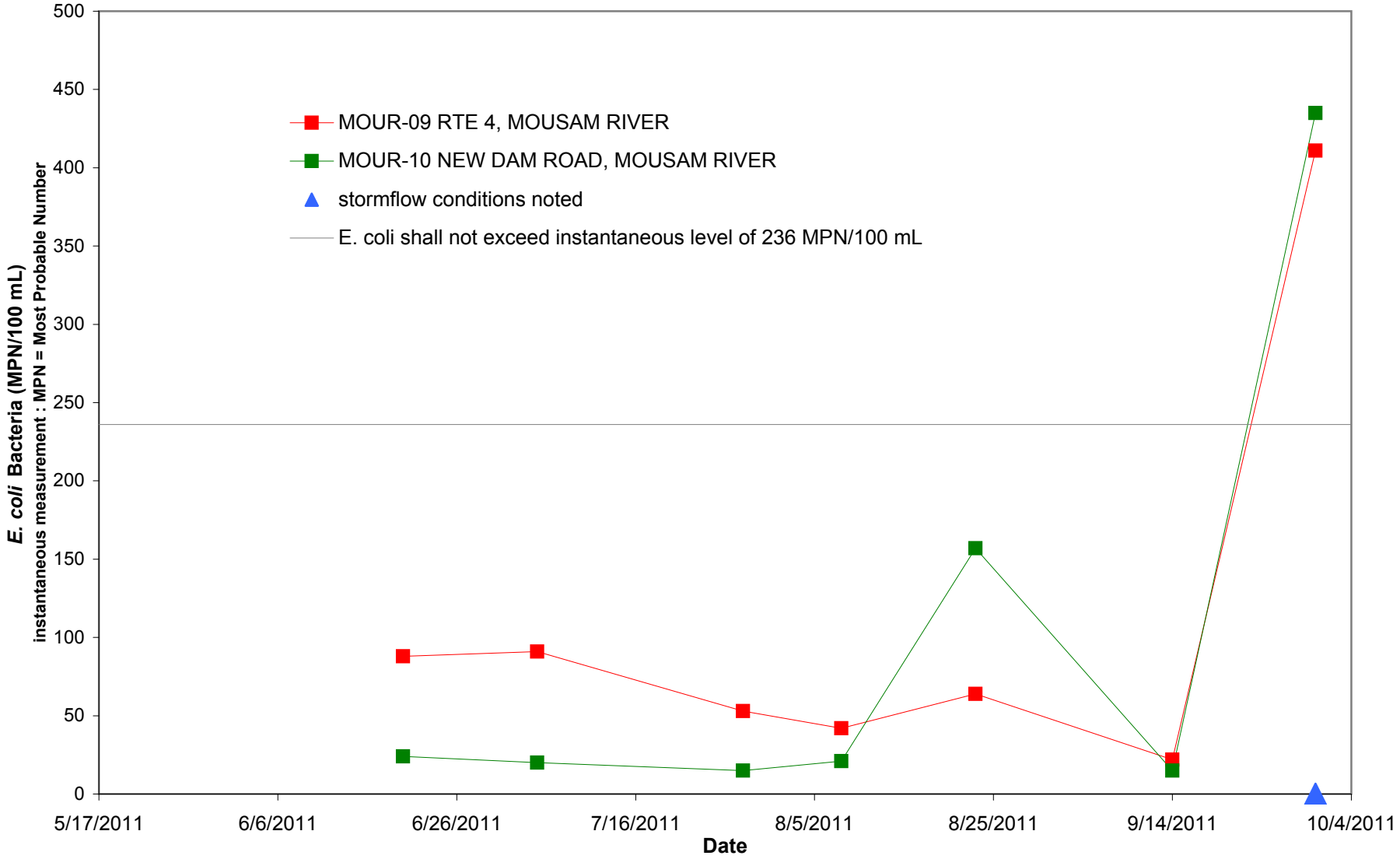

Figure 5-5-22. *E. coli* at Mousam and Kennebunk River Alliance approved monitoring sites in the upper Mousam River in 2011.

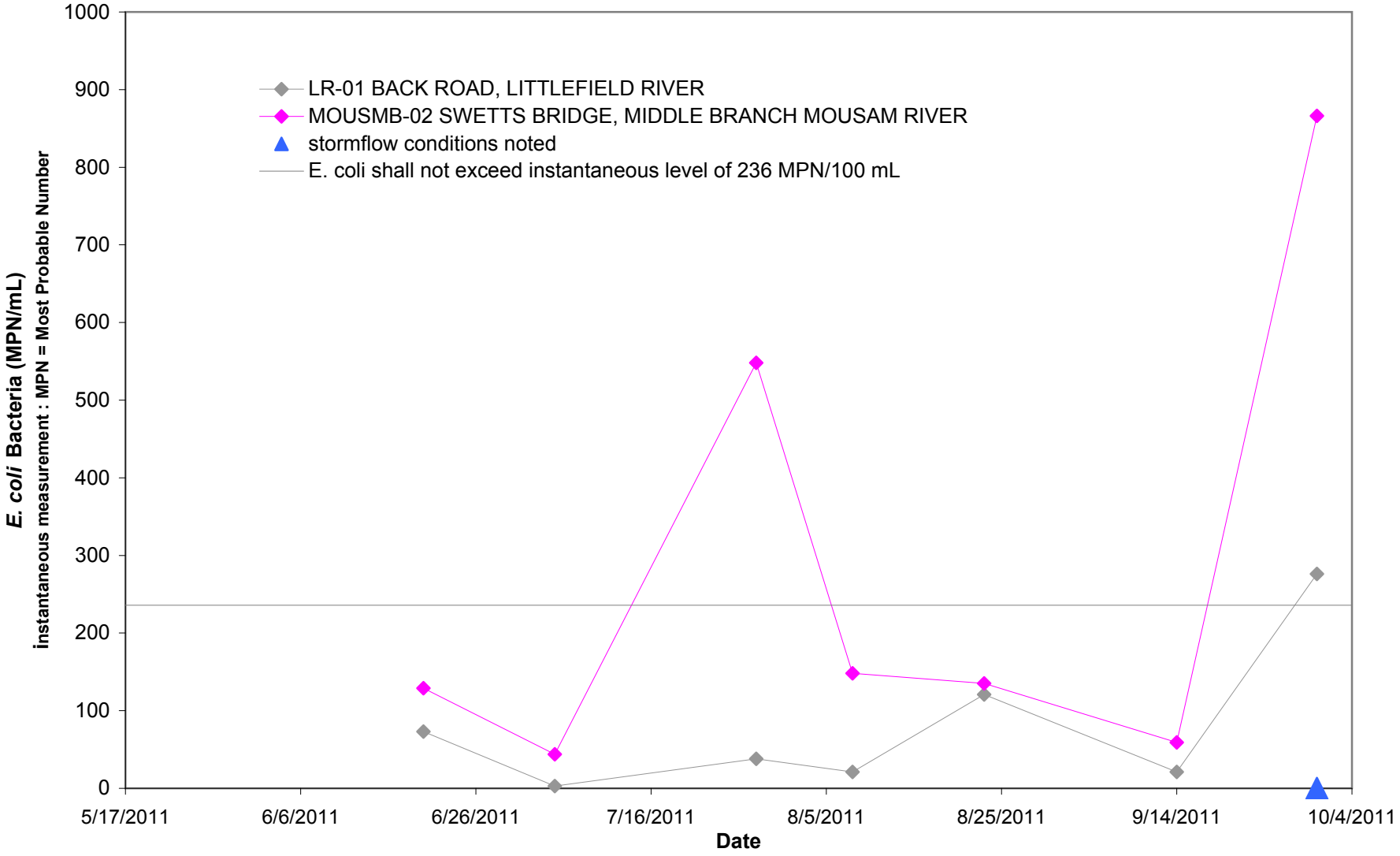

Figure 5-5-23. *E. coli* at Mousam and Kennebunk River Alliance approved monitoring sites in the upper branch of the Mousam River in 2011.

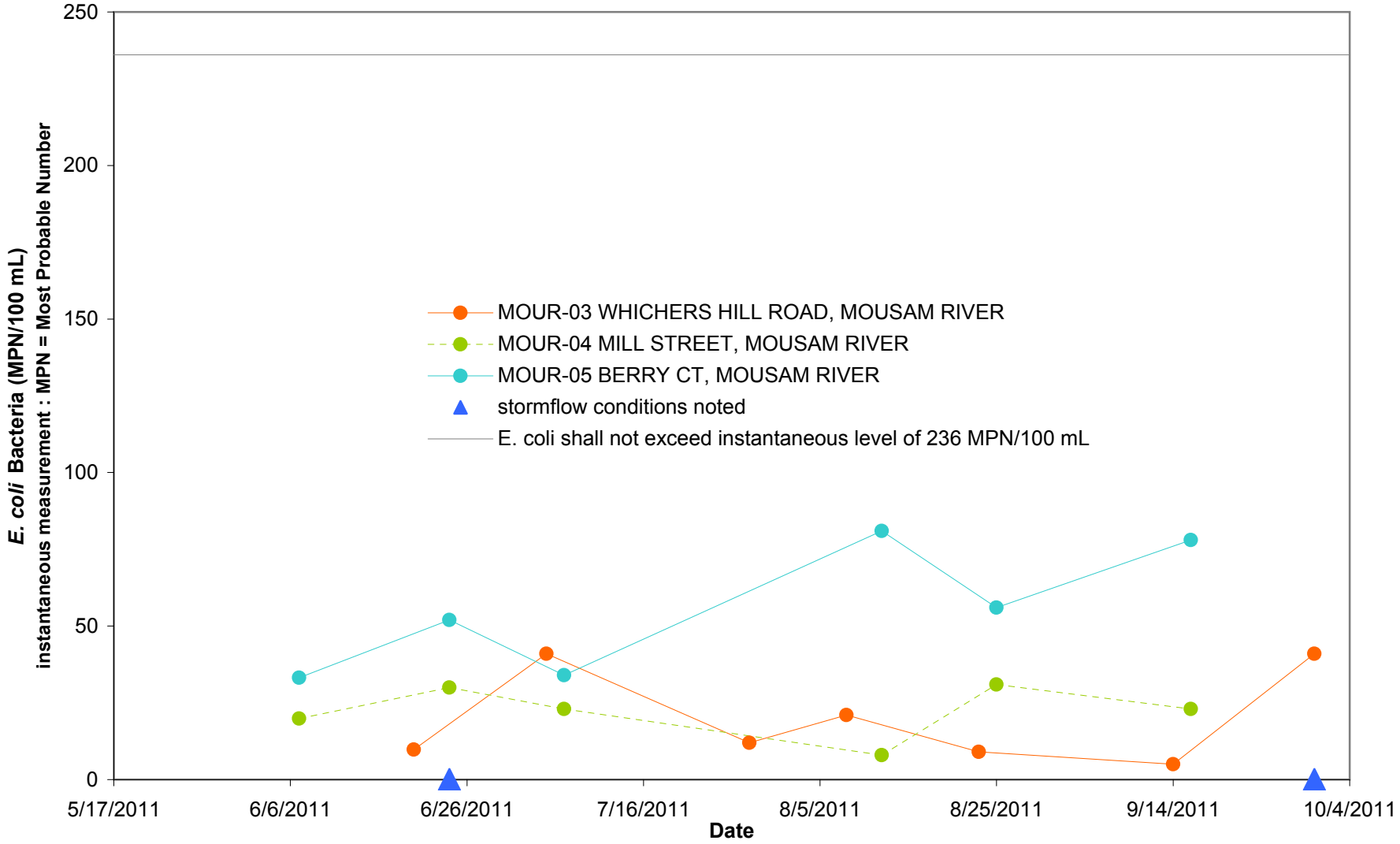

Figure 5-5-24. *E. coli* at Mousam and Kennebunk River Alliance monitoring sites in the mid-section of the Mousam River in 2011.

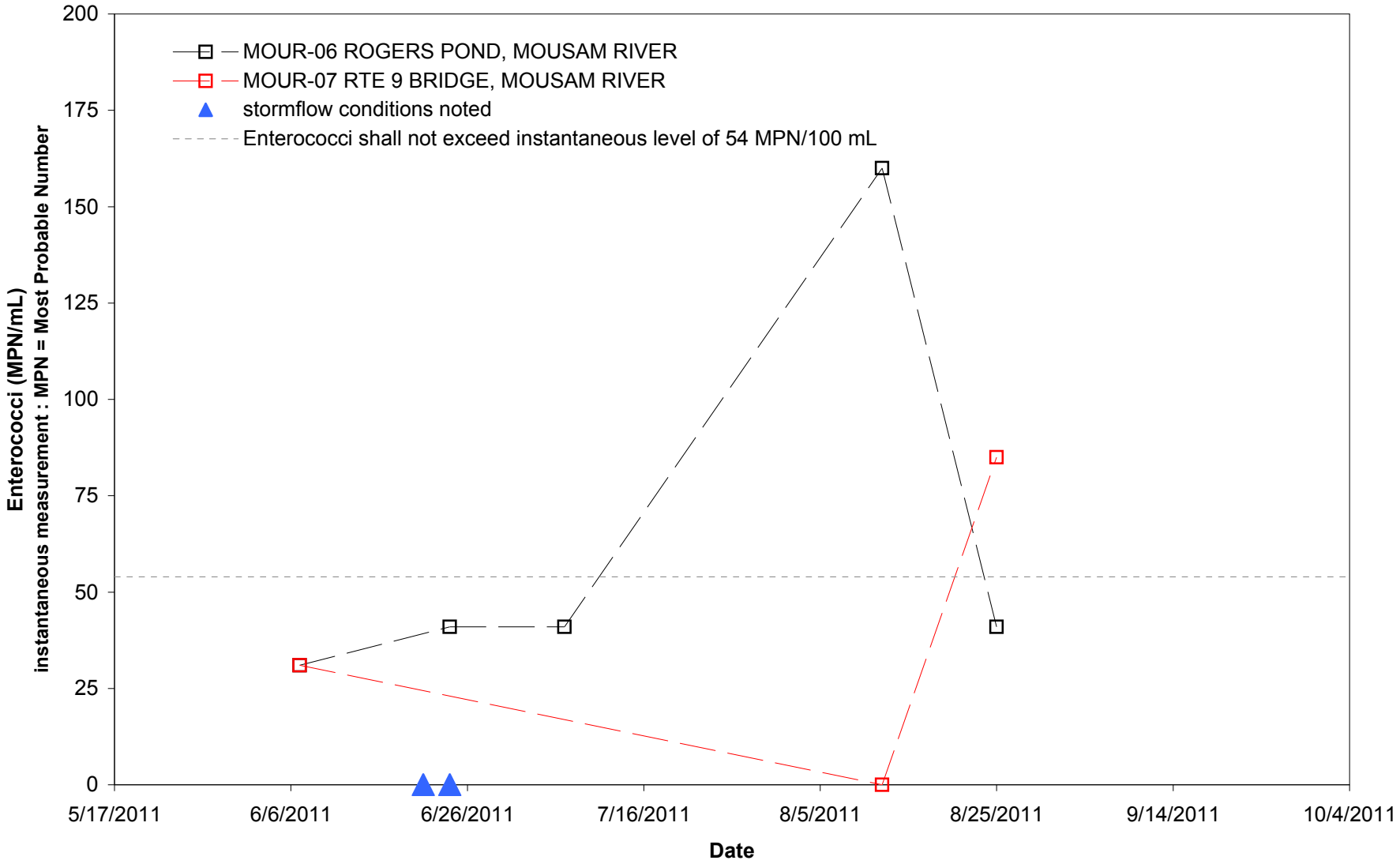

Figure 5-5-25. Enteroccocci at Mousam and Kennebunk River Alliance approved tidal monitoring sites in the Mousam River in 2011.

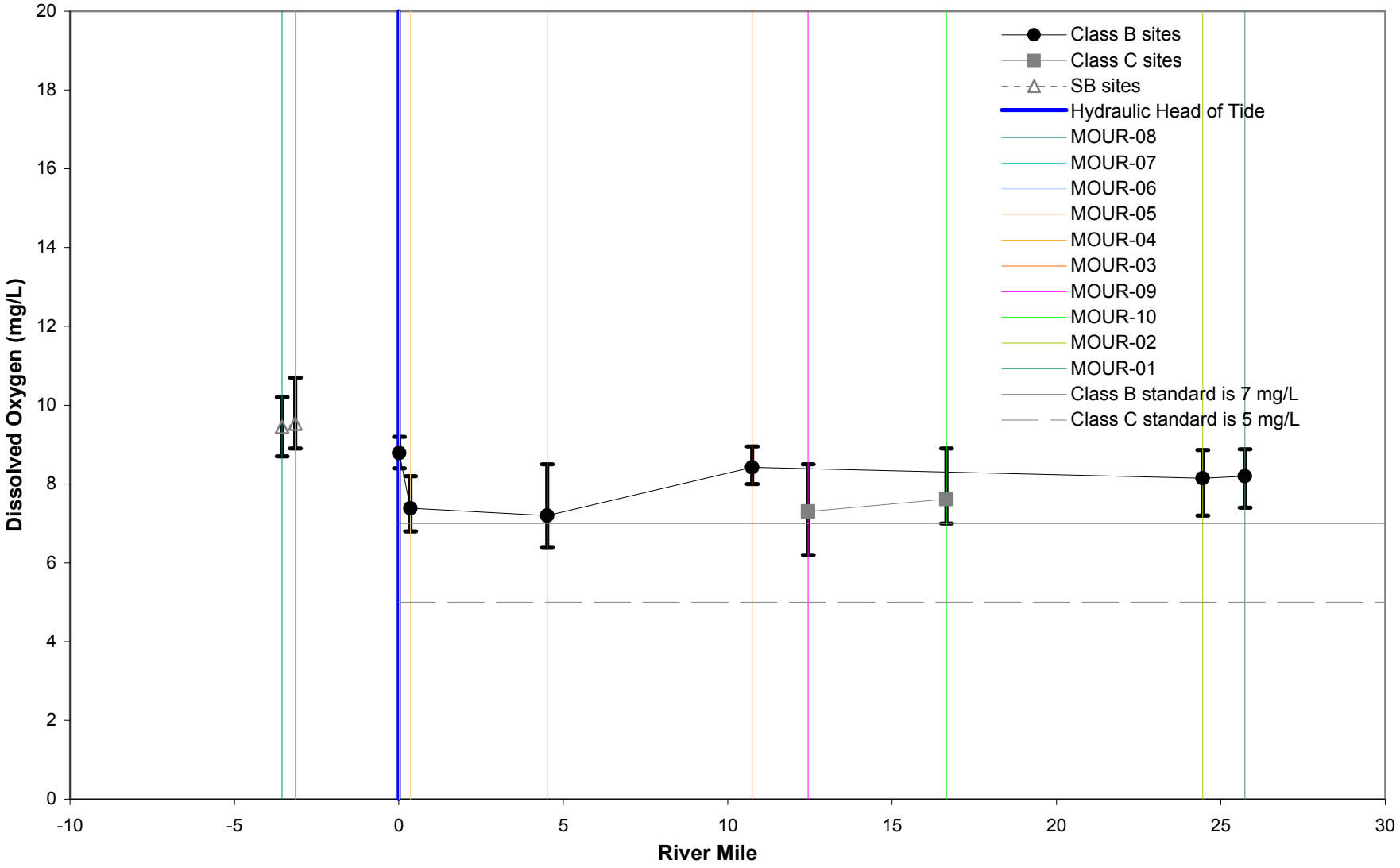

Figure 5-5-26. Dissolved oxygen concentrations, tracked by river mile along the Mousam River in 2011.
Points represent mean values, and error bars represent a range of values.

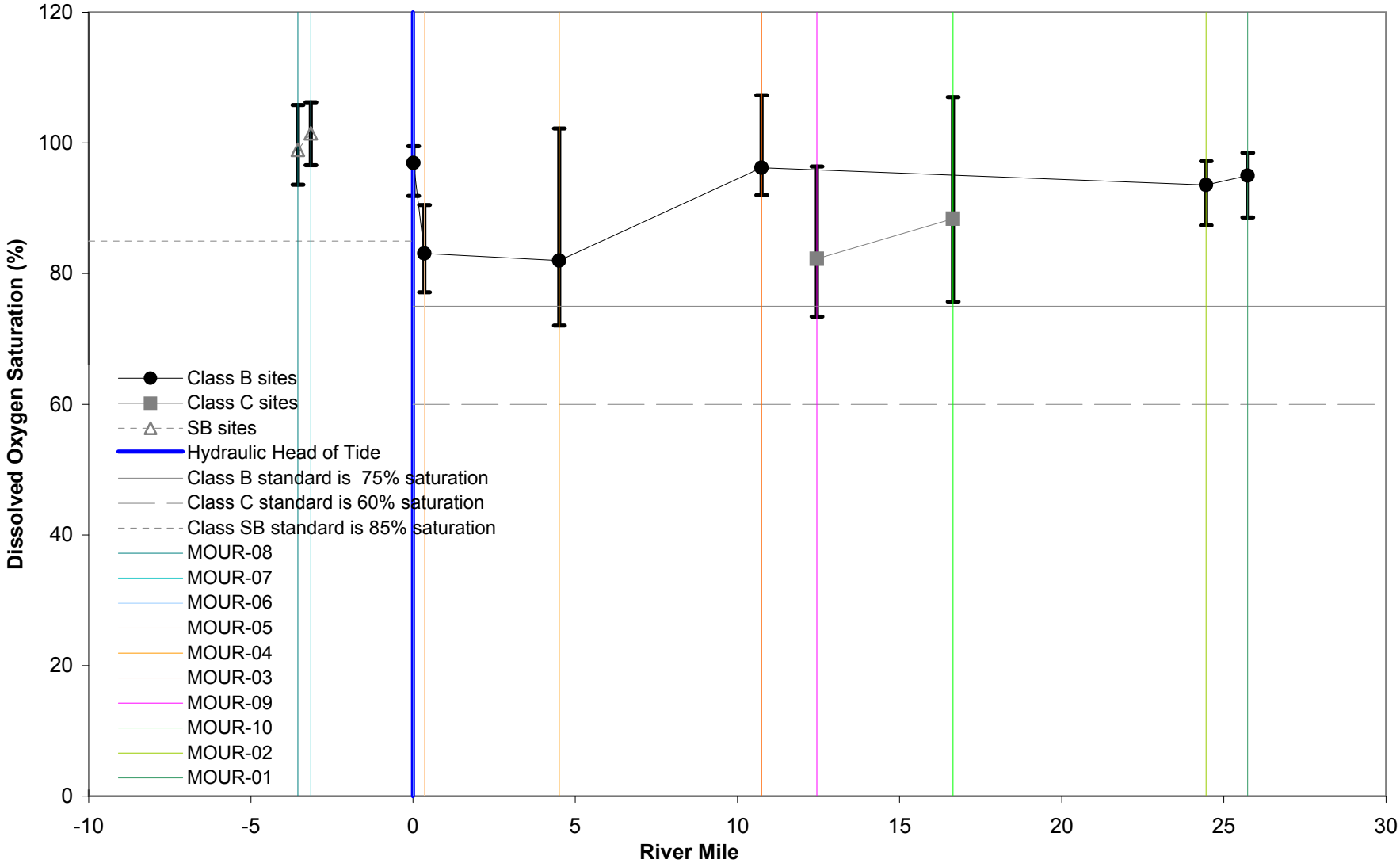

Figure 5-5-27. Dissolved oxygen saturation, tracked by river mile along the Mousam River in 2011.
Points represent mean values, and error bars represent a range of values.

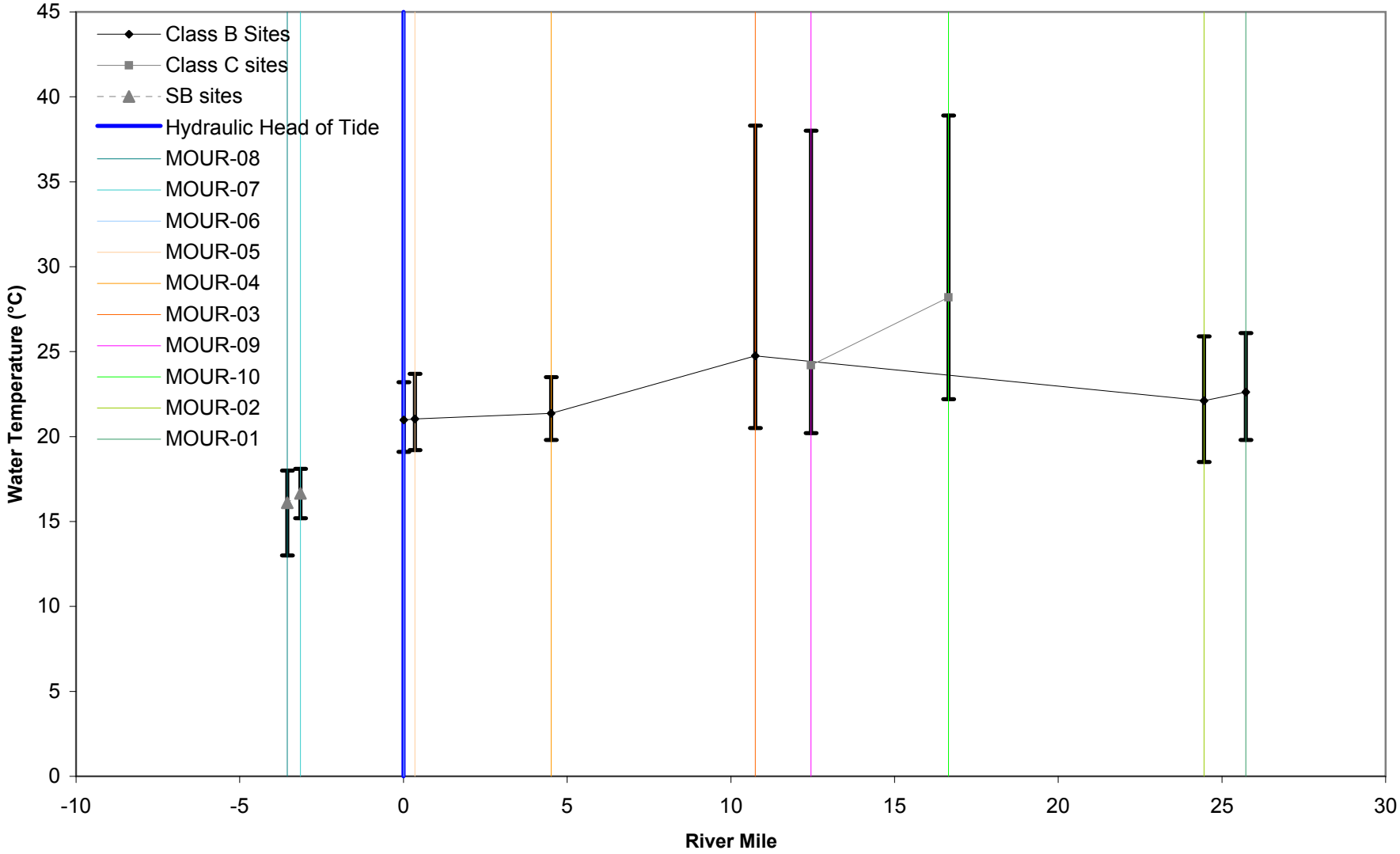

Figure 5-5-28. Water temperature, tracked by river mile along the Mousam River.
Points represent mean values, and error bars represent a range of values.

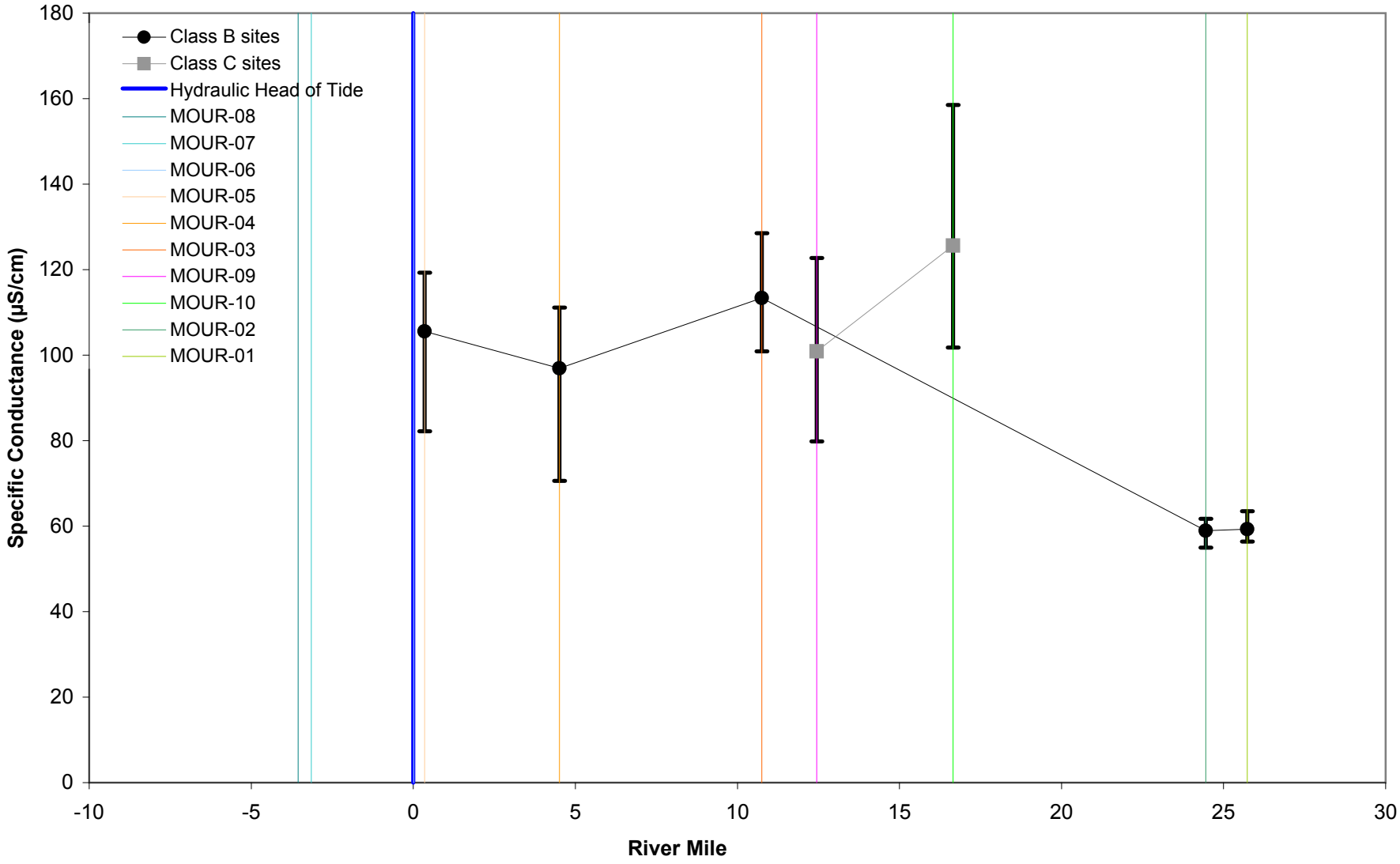

Figure 5-5-29. Specific conductance, tracked by river mile along the Mousam River.
Points represent mean values, and error bars represent a range of values.

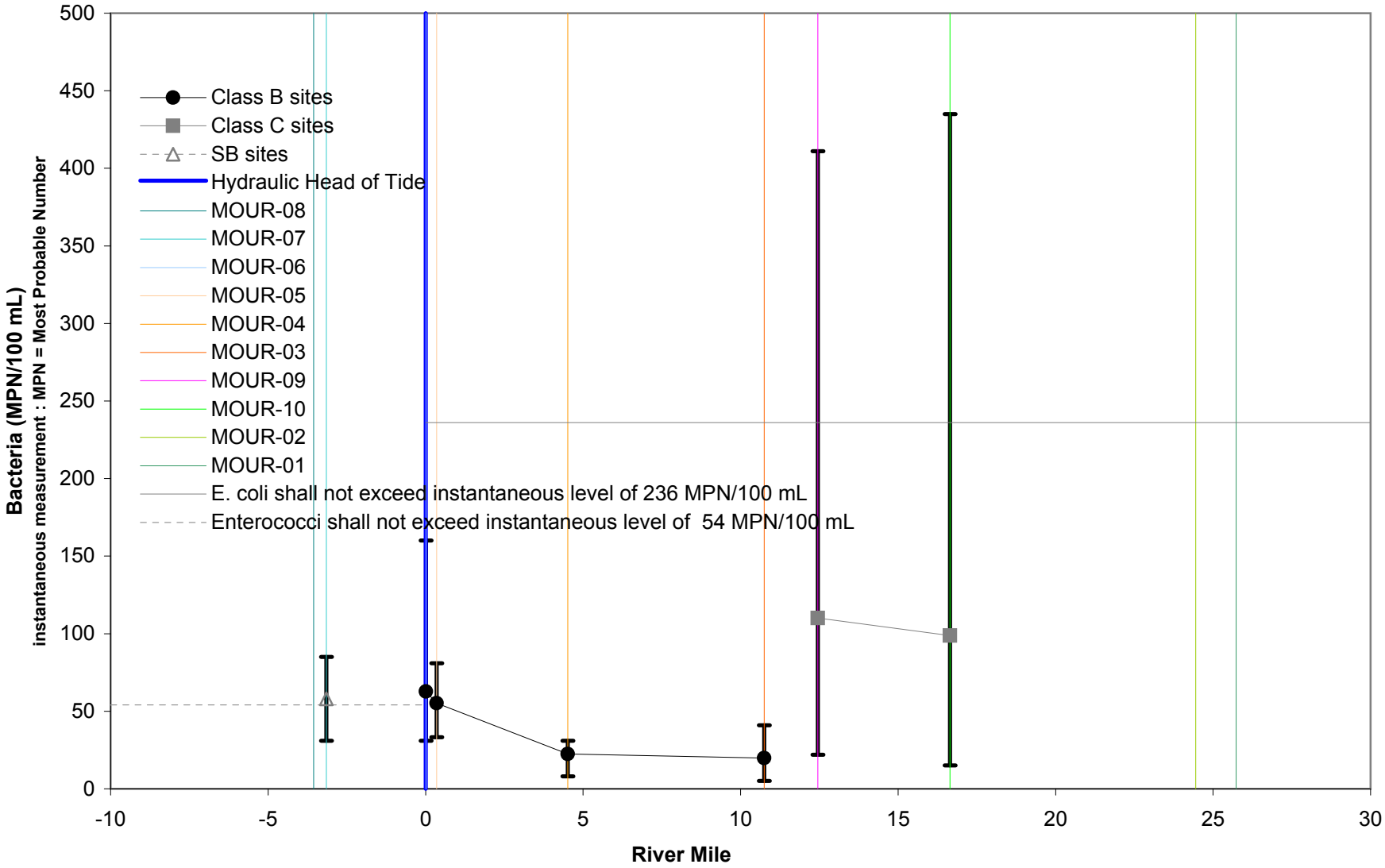

Figure 5-5-30. Bacteria (*E.coci* and Enterococcus) tracked by river mile along the Mousam River.
Points represent geomean values, and error bars represent a range of values.

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.
* Sampling depths are only reported for Tier 1 VRMP sites.
** "N" = normal environmental sample ; "D" = field duplicate; "L" = lab duplicate; "D.O." = dissolved oxygen; "Spec. Cond" = specific conductance; "Turb" = turbidity
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)	E Coli Bacteria (MPN/ 100ML)	Entero-cocci (MPN/ 100ML)
Mousam River - Mousam & Kennebunk Rivers Alliance (Approved Sites)													
LR-01 - BACK ROAD	LITTLEFIELD RIVER - SMUMBLR18 - V	6/20/2011	8:05 AM	N			21.2	69	6.1	95			
LR-01	LITTLEFIELD RIVER - SMUMBLR18 - V	6/20/2011	8:10 AM	N								73	
LR-01	LITTLEFIELD RIVER - SMUMBLR18 - V	7/5/2011	7:43 AM	N			23.9	64.2	5.4	104.2		3	
LR-01	LITTLEFIELD RIVER - SMUMBLR18 - V	7/28/2011	7:56 AM	N			22.6	77	6.7	114.4			
LR-01	LITTLEFIELD RIVER - SMUMBLR18 - V	7/28/2011	7:59 AM	N								38	
LR-01	LITTLEFIELD RIVER - SMUMBLR18 - V	8/8/2011	7:51 AM	N			23.6	57.7	4.9	113			
LR-01	LITTLEFIELD RIVER - SMUMBLR18 - V	8/8/2011	7:53 AM	N								21	
LR-01	LITTLEFIELD RIVER - SMUMBLR18 - V	8/23/2011	8:57 AM	N			21.2	50.8	4.5	101.2		121	
LR-01	LITTLEFIELD RIVER - SMUMBLR18 - V	9/14/2011	10:49 AM	N			21.3	40.5	3.6	96.7			
LR-01	LITTLEFIELD RIVER - SMUMBLR18 - V	9/14/2011	10:53 AM	N								21	
LR-01	LITTLEFIELD RIVER - SMUMBLR18 - V	9/30/2011	7:50 AM	N			17.7	37.8	3.4	95			
LR-01	LITTLEFIELD RIVER - SMUMBLR18 - V	9/30/2011	7:50 AM	D			17.7	37.9	3.6	91.1			
LR-01	LITTLEFIELD RIVER - SMUMBLR18 - V	9/30/2011	7:58 AM	N								276	
MOUR-01 - HEAD WATERS	MOUSAM RIVER - SMU290 - VRMP	6/9/2011	7:40 AM	N			20.2	97.7	8.88	63.5			
MOUR-01	MOUSAM RIVER - SMU290 - VRMP	6/22/2011	7:45 AM	N			21	98.5	8.67	62			
MOUR-01	MOUSAM RIVER - SMU290 - VRMP	7/7/2011	8:00 AM	N			24.2	88.6	7.4	59.3			
MOUR-01	MOUSAM RIVER - SMU290 - VRMP	7/21/2011	7:45 AM	N			26.1	94.8	7.6	61.1			
MOUR-01	MOUSAM RIVER - SMU290 - VRMP	8/3/2011	7:45 AM	N			23.9	91.2	7.7	56.4			
MOUR-01	MOUSAM RIVER - SMU290 - VRMP	8/18/2011	7:40 AM	N			23.5	94.8	8	58.1			
MOUR-01	MOUSAM RIVER - SMU290 - VRMP	9/1/2011	7:30 AM	N			22.9	96.7	8.3	57.8			
MOUR-01	MOUSAM RIVER - SMU290 - VRMP	9/14/2011	7:30 AM	N			22	97.2	8.5	57.2			
MOUR-01	MOUSAM RIVER - SMU290 - VRMP	9/30/2011	7:45 AM	N			19.8	95.6	8.7	58.4			
MOUR-02 - S CURVE ROAD	MOUSAM RIVER - SMU280 - VRMP	6/9/2011	8:00 AM	N			19.4	96.3	8.86	59.8			
MOUR-02	MOUSAM RIVER - SMU280 - VRMP	6/22/2011	7:55 AM	N			21.1	94.6	8.43	60.5			
MOUR-02	MOUSAM RIVER - SMU280 - VRMP	7/7/2011	8:10 AM	N			22.1	87.8	7.6	58			
MOUR-02	MOUSAM RIVER - SMU280 - VRMP	7/21/2011	7:55 AM	N			25.3	87.4	7.2	60.9			
MOUR-02	MOUSAM RIVER - SMU280 - VRMP	8/3/2011	7:55 AM	N			25.9	91.8	7.4	59.6			
MOUR-02	MOUSAM RIVER - SMU280 - VRMP	8/18/2011	7:50 AM	N			22.9	96.7	8.3	55			
MOUR-02	MOUSAM RIVER - SMU280 - VRMP	8/18/2011	7:50 AM	D			22.9	96.7	8.4	55			

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)	E Coli Bacteria (MPN/ 100ML)	Entero-cocci (MPN/ 100ML)
MOUR-02	MOUSAM RIVER - SMU280 - VRMP	9/1/2011	7:45 AM	N			22.1	97.2	8.5	56.4			
MOUR-02	MOUSAM RIVER - SMU280 - VRMP	9/14/2011	7:45 AM	N			21.7	95.7	8.4	58.6			
MOUR-02	MOUSAM RIVER - SMU280 - VRMP	9/30/2011	7:55 AM	N			18.5	94.5	8.6	61.7			
MOUR-03 - WHICHERS HILL RD	MOUSAM RIVER - SMU144 - VRMP	6/20/2011	9:40 AM	N			20.5	92	8.3	108		9.8	
MOUR-03	MOUSAM RIVER - SMU144 - VRMP	7/5/2011	9:17 AM	N			21.2	95.9	8.5	107.3			
MOUR-03	MOUSAM RIVER - SMU144 - VRMP	7/5/2011	9:25 AM	N								41	
MOUR-03	MOUSAM RIVER - SMU144 - VRMP	7/28/2011	9:13 AM	N			24.4	107.1	8.9	129		12	
MOUR-03	MOUSAM RIVER - SMU144 - VRMP	7/28/2011	9:13 AM	D			24.4	107.5	9	128			
MOUR-03	MOUSAM RIVER - SMU144 - VRMP	8/8/2011	9:03 AM	N			24.5	96	8	124.7		21	
MOUR-03	MOUSAM RIVER - SMU144 - VRMP	8/23/2011	10:10 AM	N			23	95.5	8.2	120.3		9	
MOUR-03	MOUSAM RIVER - SMU144 - VRMP	9/14/2011	11:56 AM	N			21.4	93.6	8.3	100.9			
MOUR-03	MOUSAM RIVER - SMU144 - VRMP	9/14/2011	11:57 AM	N								5	
MOUR-03	MOUSAM RIVER - SMU144 - VRMP	9/30/2011	8:57 AM	N			18.6	93.2	8.7	103.8			
MOUR-03	MOUSAM RIVER - SMU144 - VRMP	9/30/2011	8:58 AM	N								41	
MOUR-05 - BERRY CT	MOUSAM RIVER - SMU39 - VRMP	6/7/2011	8:00 AM	N			19.5	90.5	8.2	82.2		33.2	
MOUR-05	MOUSAM RIVER - SMU39 - VRMP	6/24/2011	8:50 AM	N								52	
MOUR-05	MOUSAM RIVER - SMU39 - VRMP	6/24/2011	8:55 AM	N			19.2	77.8	7.2	116			
MOUR-05	MOUSAM RIVER - SMU39 - VRMP	7/7/2011	8:45 AM	N			23.7	88.5	7.4	107.5		34	
MOUR-05	MOUSAM RIVER - SMU39 - VRMP	7/7/2011	8:45 AM	D						108			
MOUR-05	MOUSAM RIVER - SMU39 - VRMP	8/12/2011	8:35 AM	N			21.9	77.2	6.8	119.3			
MOUR-05	MOUSAM RIVER - SMU39 - VRMP	8/12/2011	8:35 AM	D			21.9	77.1	6.8				
MOUR-05	MOUSAM RIVER - SMU39 - VRMP	8/12/2011	8:50 AM	N								81	
MOUR-05	MOUSAM RIVER - SMU39 - VRMP	8/25/2011	8:30 AM	N			22.1	80.1	7	111.3			
MOUR-05	MOUSAM RIVER - SMU39 - VRMP	8/25/2011	8:30 AM	D						111.5			
MOUR-05	MOUSAM RIVER - SMU39 - VRMP	8/25/2011	8:40 AM	N								56	
MOUR-05	MOUSAM RIVER - SMU39 - VRMP	8/25/2011	8:40 AM	D								50	
MOUR-05	MOUSAM RIVER - SMU39 - VRMP	9/16/2011	1:35 PM	N								78	
MOUR-05	MOUSAM RIVER - SMU39 - VRMP	9/16/2011	1:45 PM	N			19.8	84.4	7.7	96.8			
MOUR-06 - ROGERS POND	MOUSAM RIVER - SMU35 - VRMP	6/7/2011	7:40 AM	N			19.1	99.2	9.2	91.1			31
MOUR-06	MOUSAM RIVER - SMU35 - VRMP	6/24/2011	8:30 AM	N			19.8	97.6	8.7	110.7			41
MOUR-06	MOUSAM RIVER - SMU35 - VRMP	7/7/2011	8:20 AM	N			23.2	99.5	8.5	109.6			41
MOUR-06	MOUSAM RIVER - SMU35 - VRMP	8/12/2011	9:00 AM	N			21.7	96.4	8.8	124			
MOUR-06	MOUSAM RIVER - SMU35 - VRMP	8/12/2011	9:10 AM	N									160
MOUR-06	MOUSAM RIVER - SMU35 - VRMP	8/25/2011	8:50 AM	N			22.2	97.1	8.4	110.6			
MOUR-06	MOUSAM RIVER - SMU35 - VRMP	8/25/2011	9:00 AM	N									41
MOUR-06	MOUSAM RIVER - SMU35 - VRMP	9/16/2011	2:10 PM	N			19.9	91.9	9.1	96.8			

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)	E Coli Bacteria (MPN/ 100ML)	Entero-cocci (MPN/ 100ML)
MOUR-07 - RTE 9 BRIDGE	MOUSAM RIVER - SMU04 - VRMP	6/7/2011	7:15 AM	N			15.2	106.2	10.7				31
MOUR-07	MOUSAM RIVER - SMU04 - VRMP	6/24/2011	8:10 AM	N			15.8	96.6	9.2				
MOUR-07	MOUSAM RIVER - SMU04 - VRMP	7/7/2011	8:00 AM	N			18.1	103.4	9.5				
MOUR-07	MOUSAM RIVER - SMU04 - VRMP	8/12/2011	9:20 AM	N			17.9	97.3	8.9				
MOUR-07	MOUSAM RIVER - SMU04 - VRMP	8/12/2011	9:30 AM	N									U<10
MOUR-07	MOUSAM RIVER - SMU04 - VRMP	8/25/2011	9:25 AM	N			16.4	100.4	9.6				
MOUR-07	MOUSAM RIVER - SMU04 - VRMP	8/25/2011	9:30 AM	N									85
MOUR-07	MOUSAM RIVER - SMU04 - VRMP	9/16/2011	2:35 PM	N			16.5	105	9.3				
MOUR-08 - PARSONS BEACH	BACK CREEK - SMUBC02 - VRMP	6/7/2011	7:00 AM	N			13	97.9	10.2				
MOUR-08	BACK CREEK - SMUBC02 - VRMP	6/21/2011	7:50 AM	N			15.8	98.4	9.4				
MOUR-08	BACK CREEK - SMUBC02 - VRMP	7/7/2011	7:40 AM	N			16.8	93.6	8.7				
MOUR-08	BACK CREEK - SMUBC02 - VRMP	8/12/2011	9:45 AM	N			18	97.7	8.9				
MOUR-08	BACK CREEK - SMUBC02 - VRMP	8/25/2011	9:40 AM	N			16.4	100.4	9.6				
MOUR-08	BACK CREEK - SMUBC02 - VRMP	9/16/2011	2:55 PM	N			16.6	105.8	9.9				
MOUR-09 - RTE 4	MOUSAM RIVER - SMU163 - VRMP	6/20/2011	9:01 AM	N			20.2	84	7.6	94		88	
MOUR-09	MOUSAM RIVER - SMU163 - VRMP	7/5/2011	8:35 AM	N			22.5	80.5	7	122.5			
MOUR-09	MOUSAM RIVER - SMU163 - VRMP	7/5/2011	8:35 AM	D			22.4	80.4	7	122.9			
MOUR-09	MOUSAM RIVER - SMU163 - VRMP	7/5/2011	8:42 AM	N								91	
MOUR-09	MOUSAM RIVER - SMU163 - VRMP	7/28/2011	8:44 AM	N			22.2	82.2	7.2	115		53	
MOUR-09	MOUSAM RIVER - SMU163 - VRMP	8/8/2011	8:25 AM	N			23.5	73.4	6.2	102		42	
MOUR-09	MOUSAM RIVER - SMU163 - VRMP	8/23/2011	9:39 AM	N			21.2	75.7	6.7	108.2		64	
MOUR-09	MOUSAM RIVER - SMU163 - VRMP	8/23/2011	9:39 AM	D			21.2	75.8	6.7	107.9			
MOUR-09	MOUSAM RIVER - SMU163 - VRMP	9/14/2011	11:27 AM	N			21.8	96.4	8.5	79.8		22	
MOUR-09	MOUSAM RIVER - SMU163 - VRMP	9/30/2011	8:29 AM	N								411	
MOUR-09	MOUSAM RIVER - SMU163 - VRMP	9/30/2011	8:30 AM	N			18	83.6	7.9	84.5			
MOUR-10 - NEW DAM RD	MOUSAM RIVER - SMU204 - VRMP	6/20/2011	9:22 AM	N			21.8	82	7.2	118		24	
MOUR-10	MOUSAM RIVER - SMU204 - VRMP	7/5/2011	9:06 AM	N			25.1	107	8.9	158.5		20	
MOUR-10	MOUSAM RIVER - SMU204 - VRMP	7/28/2011	9:00 AM	N			24.9	95.5	8	132			
MOUR-10	MOUSAM RIVER - SMU204 - VRMP	7/28/2011	9:03 AM	N								15	
MOUR-10	MOUSAM RIVER - SMU204 - VRMP	7/28/2011	9:03 AM	L								20	
MOUR-10	MOUSAM RIVER - SMU204 - VRMP	8/8/2011	8:50 AM	N			25.1	87.2	7.2	128		21	
MOUR-10	MOUSAM RIVER - SMU204 - VRMP	8/8/2011	8:50 AM	L								25	
MOUR-10	MOUSAM RIVER - SMU204 - VRMP	8/23/2011	9:55 AM	N			23	81.3	7	128.7		157	
MOUR-10	MOUSAM RIVER - SMU204 - VRMP	9/14/2011	11:40 AM	N								15	
MOUR-10	MOUSAM RIVER - SMU204 - VRMP	9/14/2011	11:42 AM	N			22.2	90	7.9	101.8			
MOUR-10	MOUSAM RIVER - SMU204 - VRMP	9/30/2011	8:43 AM	N			18.3	75.7	7.1	112.5			
MOUR-10	MOUSAM RIVER - SMU204 - VRMP	9/30/2011	8:46 AM	N								435	

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)	E Coli Bacteria (MPN/ 100ML)	Entero-cocci (MPN/ 100ML)
MOUSMB-01 - MAST RD	MIDDLE BRANCH MOUSAM RIVER - S	6/20/2011	8:27 AM	N			17.7	80	7.5	64			
MOUSMB-01	MIDDLE BRANCH MOUSAM RIVER - S	7/5/2011	7:58 AM	N			21.1	82.2	7.3	65			
MOUSMB-01	MIDDLE BRANCH MOUSAM RIVER - S	7/28/2011	8:12 AM	N			19.6	83.1	7.7	74.3			
MOUSMB-01	MIDDLE BRANCH MOUSAM RIVER - S	8/8/2011	8:09 AM	N			21.8	75.6	6.7	71.2			
MOUSMB-01	MIDDLE BRANCH MOUSAM RIVER - S	8/8/2011	8:09 AM	D			21.8	76.7	6.7	70.1			
MOUSMB-01	MIDDLE BRANCH MOUSAM RIVER - S	8/23/2011	9:10 AM	N			18.8	84.4	7.9	64.2			
MOUSMB-01	MIDDLE BRANCH MOUSAM RIVER - S	9/14/2011	11:04 AM	N			18.8	87	8.1	60.7			
MOUSMB-01	MIDDLE BRANCH MOUSAM RIVER - S	9/30/2011	8:06 AM	N			16	92.8	9.2	62.6			
MOUSMB-02 - SWETTS BRIDGE	MIDDLE BRANCH MOUSAM RIVER - S	6/20/2011	8:40 AM	N			17.8	76.2	7.2	93			
MOUSMB-02	MIDDLE BRANCH MOUSAM RIVER - S	6/20/2011	8:42 AM	N								129	
MOUSMB-02	MIDDLE BRANCH MOUSAM RIVER - S	7/5/2011	8:21 AM	N			18.3	78.9	7.5	114.8		44	
MOUSMB-02	MIDDLE BRANCH MOUSAM RIVER - S	7/28/2011	8:28 AM	N								548	
MOUSMB-02	MIDDLE BRANCH MOUSAM RIVER - S	7/28/2011	8:33 AM	N			17.4	87.7	8.5	138			
MOUSMB-02	MIDDLE BRANCH MOUSAM RIVER - S	8/8/2011	8:21 AM	N			18.7	76.9	7.2	106			
MOUSMB-02	MIDDLE BRANCH MOUSAM RIVER - S	8/8/2011	8:24 AM	N								148	
MOUSMB-02	MIDDLE BRANCH MOUSAM RIVER - S	8/23/2011	9:22 AM	N			18.9	78.5	7.3	75.2		135	
MOUSMB-02	MIDDLE BRANCH MOUSAM RIVER - S	9/14/2011	11:13 AM	N			18.3	81.5	7.6	86.3			
MOUSMB-02	MIDDLE BRANCH MOUSAM RIVER - S	9/14/2011	11:15 AM	N								59	
MOUSMB-02	MIDDLE BRANCH MOUSAM RIVER - S	9/30/2011	8:15 AM	N			16.1	88.2	8.7	60.3			
MOUSMB-02	MIDDLE BRANCH MOUSAM RIVER - S	9/30/2011	8:17 AM	N								866	

Mousam River - Mousam & Kennebunk Rivers Alliance (Non-approved Sites)													
MOUR-04 - MILL STREET	MOUSAM RIVER - SMU80 - KMA	6/7/2011	8:35 AM	N			19.8	86.5	7.9	70.6		19.9	
MOUR-04	MOUSAM RIVER - SMU80 - KMA	6/24/2011	9:20 AM	N			20	72	6.5	94		30	
MOUR-04	MOUSAM RIVER - SMU80 - KMA	6/24/2011	9:20 AM	D			20	72.1	6.5				
MOUR-04	MOUSAM RIVER - SMU80 - KMA	7/7/2011	9:05 AM	N			23.5	102.2	8.5	99.1		23	
MOUR-04	MOUSAM RIVER - SMU80 - KMA	8/12/2011	8:10 AM	N			22.6	76.6	6.4	111.1			
MOUR-04	MOUSAM RIVER - SMU80 - KMA	8/12/2011	8:20 AM	N								8	
MOUR-04	MOUSAM RIVER - SMU80 - KMA	8/25/2011	8:10 AM	N			21.7	77.8	7	103			
MOUR-04	MOUSAM RIVER - SMU80 - KMA	8/25/2011	8:15 AM	N								31	
MOUR-04	MOUSAM RIVER - SMU80 - KMA	9/16/2011	1:30 PM	N			20.6	76.7	6.9	103.7			
MOUR-04	MOUSAM RIVER - SMU80 - KMA	9/16/2011	1:35 PM	N								23	

Appendix A-2. 2011 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; "D.O." = dissolved oxygen; "Spec. Cond" = specific conductance; "Turb"= turbidity
Refer to Appendix A-1 for water quality data

Organization 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	Tide Stage	Water Appearance	Comments
Mousam River - Mousam & Kennebunk Rivers Alliance (Approved Sites)															
LR-01 BACK ROAD	LITTLEFIELD RIVER -	6/20/2011	8:05 AM	N	BASE FLOW	MEDIUM	13.3	BRIDGE	CLEAR	CALM	CLEAR	RUN		MEDIUM STAINED	NON-WADEABLE/MID-DEPTH
LR-01	LITTLEFIELD RIVER -	6/20/2011	8:10 AM	N											
LR-01	LITTLEFIELD RIVER -	7/5/2011	7:43 AM	N	BASE FLOW	LOW	17.8	BRIDGE	CLEAR	CALM	PARTLY CLOUDY	RUN		CLEAR	NON-WADEABLE/MID-DEPTH
LR-01	LITTLEFIELD RIVER -	7/28/2011	7:56 AM	N	BASE FLOW	LOW	16.1	BRIDGE	CLEAR	CALM	PARTLY CLOUDY	RUN		CLEAR	HEAVY RAIN 7/26 IN EARLY EVENING NON-WADEABLE/MID-DEPTH
LR-01	LITTLEFIELD RIVER -	7/28/2011	7:59 AM	N											
LR-01	LITTLEFIELD RIVER -	8/8/2011	7:51 AM	N	BASE FLOW	MEDIUM	21.1	BRIDGE	CLOUDY	CALM	LIGHT RAIN, MOSTLY CLOUDY	RUN		MEDIUM STAINED	NON-WADEABLE/MID-DEPTH
LR-01	LITTLEFIELD RIVER -	8/8/2011	7:53 AM	N											
LR-01	LITTLEFIELD RIVER -	8/23/2011	8:57 AM	N	BASE FLOW	MEDIUM	14.4	BRIDGE	CLEAR	CALM	CLEAR	RUN		MEDIUM STAINED	NON-WADEABLE/MID-DEPTH DID NOT COMPLETE CHAIN OF CUSTODY FOR DATASHEET
LR-01	LITTLEFIELD RIVER -	9/14/2011	10:49 AM	N	BASE FLOW	MEDIUM	22.2	BRIDGE	MOSTLY CLOUDY	BREEZE	PARTLY CLOUDY	RUN		MEDIUM STAINED	NON-WADEABLE/MID-DEPTH DID NOT COMPLETE CHAIN OF CUSTODY FOR DATASHEET
LR-01	LITTLEFIELD RIVER -	9/14/2011	10:53 AM	N											
LR-01	LITTLEFIELD RIVER -	9/30/2011	7:50 AM	N	STRM FLOW	HIGH	14.4	BRIDGE	PARTLY CLOUDY	CALM	HEAVY RAIN	RUN		MEDIUM STAINED	NON-WADEABLE/MID-DEPTH DID NOT COMPLETE CHAIN OF CUSTODY FOR DATASHEET
LR-01	LITTLEFIELD RIVER -	9/30/2011	7:50 AM	D				BRIDGE							NON-WADEABLE/MID-DEPTH DID NOT COMPLETE CHAIN OF CUSTODY FOR DATASHEET
LR-01	LITTLEFIELD RIVER -	9/30/2011	7:58 AM	N											
MOUR-01 HEAD WATERS	MOUSAM RIVER - SM	6/9/2011	7:40 AM	N	STRM FLOW	HIGH	18.9	BANK	CLOUDY, LIGHT RAIN	CALM	HEAVY RAIN, LIGHT RAIN, SHOWERS	RUN		MEDIUM STAINED	NON-WADEABLE/MID-DEPTH
MOUR-01	MOUSAM RIVER - SM	6/22/2011	7:45 AM	N	BASE FLOW	MEDIUM		BANK	CLEAR		CLEAR	RUN		MEDIUM STAINED	NON-WADEABLE/3 FT BELOW SURFACE
MOUR-01	MOUSAM RIVER - SM	7/7/2011	8:00 AM	N	BASE FLOW	MEDIUM	22.2	BANK	CLEAR	CALM	CLEAR, LIGHT RAIN	RUN		MEDIUM STAINED	NON-WADEABLE/MID-DEPTH
MOUR-01	MOUSAM RIVER - SM	7/21/2011	7:45 AM	N	BASE FLOW	MEDIUM	24.4	BANK	CLEAR	CALM	CLEAR	RUN		MEDIUM STAINED	NON-WADEABLE/MID-DEPTH
MOUR-01	MOUSAM RIVER - SM	8/3/2011	7:45 AM	N	BASE FLOW	LOW	21.1	BANK	PARTLY CLOUDY	BREEZE	CLEAR, CLOUDY, HEAVY RAIN, SHOWERS	RUN		MEDIUM STAINED	NON-WADEABLE/3 FT BELOW SURFACE
MOUR-01	MOUSAM RIVER - SM	8/18/2011	7:40 AM	N	BASE FLOW	LOW	18.3	BANK	CLEAR		CLEAR	RUN		MEDIUM STAINED	NON-WADEABLE/3 FT BELOW SURFACE
MOUR-01	MOUSAM RIVER - SM	9/1/2011	7:30 AM	N	STRM FLOW	HIGH	20.0	BANK	PARTLY CLOUDY	CALM	CLEAR, PARTLY CLOUDY	RUN		MEDIUM STAINED	NON-WADEABLE/MID-DEPTH
MOUR-01	MOUSAM RIVER - SM	9/14/2011	7:30 AM	N	BASE FLOW	MEDIUM	21.7	BANK	CLEAR	CALM	CLEAR	RUN		MEDIUM STAINED	NON-WADEABLE/MID-DEPTH
MOUR-01	MOUSAM RIVER - SM	9/30/2011	7:45 AM	N	STRM FLOW	MEDIUM	13.3	BANK		CALM	CLOUDY, HEAVY RAIN, PARTLY CLOUDY, SHOWERS	RUN		MEDIUM STAINED	NON-WADEABLE/MID-DEPTH
MOUR-02 S CURVE ROAD	MOUSAM RIVER - SM	6/9/2011	8:00 AM	N	STRM FLOW	HIGH	18.9	WADING	CLOUDY, LIGHT RAIN	CALM	HEAVY RAIN, LIGHT RAIN, SHOWERS	RUN		MEDIUM STAINED	WADEABLE/MID-DEPTH
MOUR-02	MOUSAM RIVER - SM	6/22/2011	7:55 AM	N	BASE FLOW	MEDIUM		WADING	CLEAR		CLEAR	RUN		MEDIUM STAINED	WADEABLE/MID-DEPTH

Organization 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	Tide Stage	Water Appearance	Comments
MOUR-02	MOUSAM RIVER - SM	7/7/2011	8:10 AM	N	BASE FLOW	MEDIUM	22.2	WADING	CLEAR	CALM	CLEAR, LIGHT RAIN	RUN		MEDIUM STAINED	WADEABLE/MID-DEPTH
MOUR-02	MOUSAM RIVER - SM	7/21/2011	7:55 AM	N	BASE FLOW	MEDIUM	24.4	WADING	CLEAR	CALM	CLEAR	RUN		MEDIUM STAINED	WADEABLE/MID-DEPTH
MOUR-02	MOUSAM RIVER - SM	8/3/2011	7:55 AM	N	BASE FLOW	LOW	21.1	WADING	PARTLY CLOUDY	BREEZE	CLEAR, CLOUDY, HEAVY RAIN, SHOWERS	RUN		MEDIUM STAINED	WADEABLE/MID-DEPTH
MOUR-02	MOUSAM RIVER - SM	8/18/2011	7:50 AM	N	BASE FLOW	LOW	18.3	WADING	CLEAR		CLEAR	RUN		MEDIUM STAINED	WADEABLE/MID-DEPTH
MOUR-02	MOUSAM RIVER - SM	8/18/2011	7:50 AM	D				WADING							WADEABLE/MID-DEPTH
MOUR-02	MOUSAM RIVER - SM	9/1/2011	7:45 AM	N	STRM FLOW	HIGH	20.0	WADING	PARTLY CLOUDY	CALM	CLEAR, PARTLY CLOUDY	RUN		MEDIUM STAINED	WADEABLE/MID-DEPTH
MOUR-02	MOUSAM RIVER - SM	9/14/2011	7:45 AM	N	BASE FLOW	MEDIUM	21.7	WADING	CLEAR	CALM	CLEAR	RUN		MEDIUM STAINED	WADEABLE/MID-DEPTH
MOUR-02	MOUSAM RIVER - SM	9/30/2011	7:55 AM	N	STRM FLOW	MEDIUM	13.3	WADING		CALM	CLOUDY, HEAVY RAIN, PARTLY CLOUDY, SHOWERS	RUN		MEDIUM STAINED	WADEABLE/MID-DEPTH
MOUR-03 WHICHERS HILL ROAD	MOUSAM RIVER - SM	6/20/2011	9:40 AM	N	BASE FLOW	MEDIUM	13.3	WADING	CLEAR	CALM	CLEAR	RUN		CLEAR	WADEABLE/MID-DEPTH
MOUR-03	MOUSAM RIVER - SM	7/5/2011	9:17 AM	N	BASE FLOW	LOW	17.8	WADING	CLEAR	CALM	PARTLY CLOUDY	RUN		CLEAR	WADEABLE/MID-DEPTH
MOUR-03	MOUSAM RIVER - SM	7/5/2011	9:25 AM	N											
MOUR-03	MOUSAM RIVER - SM	7/28/2011	9:13 AM	N	BASE FLOW	LOW	16.1	WADING	CLEAR	CALM	PARTLY CLOUDY	RUN		MEDIUM STAINED	HEAVY RAIN 7/26 IN EARLY EVENING WADEABLE/MID-DEPTH
MOUR-03	MOUSAM RIVER - SM	7/28/2011	9:13 AM	D				WADING							HEAVY RAIN 7/26 IN EARLY EVENING WADEABLE/MID-DEPTH
MOUR-03	MOUSAM RIVER - SM	8/8/2011	9:03 AM	N	BASE FLOW	MEDIUM	21.1	WADING	CLOUDY	CALM	LIGHT RAIN, MOSTLY CLOUDY	RUN		MEDIUM STAINED	WADEABLE/MID-DEPTH
MOUR-03	MOUSAM RIVER - SM	8/23/2011	10:10 AM	N	BASE FLOW	MEDIUM	14.4	WADING	CLEAR	CALM	CLEAR	RUN		MEDIUM STAINED	WADEABLE/MID-DEPTH DID NOT COMPLETE CHAIN OF CUSTODY FOR DATASHEET
MOUR-03	MOUSAM RIVER - SM	9/14/2011	11:56 AM	N	BASE FLOW	MEDIUM	22.2	WADING	MOSTLY CLOUDY	BREEZE	PARTLY CLOUDY	RUN		DARKLY STAINED	WADEABLE/MID-DEPTH DID NOT COMPLETE CHAIN OF CUSTODY FOR DATASHEET
MOUR-03	MOUSAM RIVER - SM	9/14/2011	11:57 AM	N											
MOUR-03	MOUSAM RIVER - SM	9/30/2011	8:57 AM	N	STRM FLOW	HIGH	14.4	WADING	PARTLY CLOUDY	CALM	HEAVY RAIN	RUN		MEDIUM STAINED	WADEABLE/MID-DEPTH DID NOT COMPLETE CHAIN OF CUSTODY FOR DATASHEET
MOUR-03	MOUSAM RIVER - SM	9/30/2011	8:58 AM	N											
MOUR-05 BERRY CT	MOUSAM RIVER - SM	6/7/2011	8:00 AM	N	BASE FLOW	LOW	15.0	WADING	CLEAR	CALM	CLEAR	RUN		MEDIUM STAINED	NON-WADEABLE/3 FT BELOW SURFACE
MOUR-05	MOUSAM RIVER - SM	6/24/2011	8:50 AM	N											
MOUR-05	MOUSAM RIVER - SM	6/24/2011	8:55 AM	N	STRM FLOW	HIGH	11.7	WADING	LIGHT RAIN	BREEZE	CLOUDY, HEAVY RAIN, LIGHT RAIN	RUN		MEDIUM STAINED	NON-WADEABLE/3 FT BELOW SURFACE DO METER MEMBRANE NOT INSPECTED.
MOUR-05	MOUSAM RIVER - SM	7/7/2011	8:45 AM	N	BASE FLOW	LOW	21.7	WADING	CLEAR	CALM	CLEAR, SHOWERS	RUN		TURBID	NON-WADEABLE/3 FT BELOW SURFACE
MOUR-05	MOUSAM RIVER - SM	7/7/2011	8:45 AM	D				WADING							NON-WADEABLE/3 FT BELOW SURFACE
MOUR-05	MOUSAM RIVER - SM	8/12/2011	8:35 AM	N	BASE FLOW	MEDIUM	18.3	WADING	CLEAR	CALM	CLEAR, PARTLY CLOUDY	RUN		TURBID	THERE WAS A DRAWDOWN OF THE WATER TO REPAIR THE KESSELEN DAM 3 DAYS EARLIER (MOUR-05, MOUR-06). BRIDGE CONSTRUCTION UPSTREAM OF MOUR-06 NON-WADEABLE/3 FT BELOW SURFACE
MOUR-05	MOUSAM RIVER - SM	8/12/2011	8:35 AM	D				WADING							THERE WAS A DRAWDOWN OF THE WATER TO REPAIR THE KESSELEN DAM 3 DAYS EARLIER (MOUR-05, MOUR-06). BRIDGE CONSTRUCTION UPSTREAM OF MOUR-06 NON-WADEABLE/3 FT BELOW SURFACE
MOUR-05	MOUSAM RIVER - SM	8/12/2011	8:50 AM	N											

Organization 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	Tide Stage	Water Appearance	Comments
MOUR-05	MOUSAM RIVER - SM	8/25/2011	8:30 AM	N	BASE FLOW	MEDIUM	20.0	WADING	MOSTLY CLOUDY	STRONG WIND	PARTLY CLOUDY			TURBID	RIVER STAGNANT, BEHIND KESSELIN DAM NON-WADEABLE/3 FT BELOW SURFACE DO METER MEMBRANE NOT INSPECTED.
MOUR-05	MOUSAM RIVER - SM	8/25/2011	8:30 AM	D				WADING							RIVER STAGNANT, BEHIND KESSELIN DAM NON-WADEABLE/3 FT BELOW SURFACE DO METER MEMBRANE NOT INSPECTED.
MOUR-05	MOUSAM RIVER - SM	8/25/2011	8:40 AM	N											
MOUR-05	MOUSAM RIVER - SM	8/25/2011	8:40 AM	D											
MOUR-05	MOUSAM RIVER - SM	9/16/2011	1:35 PM	N											
MOUR-05	MOUSAM RIVER - SM	9/16/2011	1:45 PM	N	BASE FLOW	HIGH	15.6	WADING	PARTLY CLOUDY	STRONG WIND	CLEAR, PARTLY CLOUDY, SHOWERS	RUN		MEDIUM STAINED	NON-WADEABLE/3 FT BELOW SURFACE
ROGER'S POND	MOUSAM RIVER - SM	6/7/2011	7:40 AM	N	BASE FLOW	LOW	15.0	WADING	CLEAR	CALM	CLEAR	RIFFLE		CLEAR	WADEABLE/MID-DEPTH
MOUR-06	MOUSAM RIVER - SM	6/24/2011	8:30 AM	N	STRM FLOW	MEDIUM	11.7	WADING	LIGHT RAIN	BREEZE	CLOUDY, HEAVY RAIN, LIGHT RAIN	RIFFLE		MEDIUM STAINED	WADEABLE/MID-DEPTH DO METER MEMBRANE NOT INSPECTED.
MOUR-06	MOUSAM RIVER - SM	7/7/2011	8:20 AM	N	BASE FLOW	LOW	21.7	WADING	CLEAR	CALM	CLEAR, SHOWERS	RIFFLE		TURBID	WADEABLE/MID-DEPTH
MOUR-06	MOUSAM RIVER - SM	8/12/2011	9:00 AM	N	BASE FLOW	MEDIUM	18.3	WADING	CLEAR	CALM	CLEAR, PARTLY CLOUDY	RIFFLE		TURBID	THERE WAS A DRAWDOWN OF THE WATER TO REPAIR THE KESSELEN DAM 3 DAYS EARLIER (MOUR-05, MOUR-06). BRIDGE CONSTRUCTION UPSTREAM OF MOUR-06 WADEABLE/1.5 FT BELOW SURFACE
MOUR-06	MOUSAM RIVER - SM	8/12/2011	9:10 AM	N											
MOUR-06	MOUSAM RIVER - SM	8/25/2011	8:50 AM	N	BASE FLOW	MEDIUM	20.0	WADING	MOSTLY CLOUDY	STRONG WIND	PARTLY CLOUDY	RIFFLE	HIGH EBB	CLEAR	WADEABLE/MID-DEPTH DO METER MEMBRANE NOT INSPECTED.
MOUR-06	MOUSAM RIVER - SM	8/25/2011	9:00 AM	N											
MOUR-06	MOUSAM RIVER - SM	9/16/2011	2:10 PM	N	BASE FLOW	HIGH	15.6	WADING	PARTLY CLOUDY	STRONG WIND	CLEAR, PARTLY CLOUDY, SHOWERS	RIFFLE		MEDIUM STAINED	WADEABLE/1.5 FT BELOW SURFACE
MOUR-07 RTE 9 BRIDGE	MOUSAM RIVER - SM	6/7/2011	7:15 AM	N	BASE FLOW	LOW	15.0	BRIDGE	CLEAR	CALM	CLEAR	RUN	LOW EBB	CLEAR	NON-WADEABLE/3 FT BELOW SURFACE
MOUR-07	MOUSAM RIVER - SM	6/24/2011	8:10 AM	N	STRM FLOW	HIGH	11.7	BRIDGE	LIGHT RAIN	BREEZE	CLOUDY, HEAVY RAIN, LIGHT RAIN	RUN	HIGH EBB	MEDIUM STAINED	NO BACTERIA SAMPLE TAKEN. HEAVY RAIN OVERNIGHT. NON-WADEABLE/3 FT BELOW SURFACE DO METER MEMBRANE NOT INSPECTED.
MOUR-07	MOUSAM RIVER - SM	7/7/2011	8:00 AM	N	BASE FLOW	LOW	21.7	BRIDGE	CLEAR	CALM	CLEAR, SHOWERS	RUN	LOW FLOOD	TURBID	COULD NOT GET BACTERIA SAMPLE - BRIDGE CONSTRUCTION UPSTREAM NON-WADEABLE/3 FT BELOW SURFACE
MOUR-07	MOUSAM RIVER - SM	8/12/2011	9:20 AM	N	BASE FLOW	HIGH	18.3	BRIDGE	CLEAR	CALM	CLEAR, PARTLY CLOUDY	RUN	FLOOD	MEDIUM STAINED	NON-WADEABLE/3 FT BELOW SURFACE
MOUR-07	MOUSAM RIVER - SM	8/12/2011	9:30 AM	N											
MOUR-07	MOUSAM RIVER - SM	8/25/2011	9:25 AM	N	BASE FLOW	HIGH	20.0	BRIDGE	MOSTLY CLOUDY	STRONG WIND	PARTLY CLOUDY	RUN	HIGH EBB	CLEAR	WADEABLE/MID-DEPTH DO METER MEMBRANE NOT INSPECTED.
MOUR-07	MOUSAM RIVER - SM	8/25/2011	9:30 AM	N											
MOUR-07	MOUSAM RIVER - SM	9/16/2011	2:35 PM	N	BASE FLOW	HIGH	15.6	BRIDGE	PARTLY CLOUDY	STRONG WIND	CLEAR, PARTLY CLOUDY, SHOWERS	RUN	HIGH EBB	MEDIUM STAINED	NON-WADEABLE/3 FT BELOW SURFACE
PARSONS BEACH	BACK CREEK - SMUB	6/7/2011	7:00 AM	N	BASE FLOW	LOW	15.0	BRIDGE	CLEAR	CALM	CLEAR	RUN	LOW EBB	CLEAR	WADEABLE/1.5 FT BELOW SURFACE
MOUR-08	BACK CREEK - SMUB	6/21/2011	7:50 AM	N	STRM FLOW	HIGH	11.7	BRIDGE	LIGHT RAIN	BREEZE	CLOUDY, HEAVY RAIN, LIGHT RAIN	RUN	HIGH EBB	MEDIUM STAINED	NON-WADEABLE/3 FT BELOW SURFACE DO METER MEMBRANE NOT INSPECTED.
MOUR-08	BACK CREEK - SMUB	7/7/2011	7:40 AM	N	BASE FLOW	LOW	21.7	BRIDGE	CLEAR	CALM	CLEAR, SHOWERS	RUN	LOW FLOOD	CLEAR	WADEABLE/1.5 FT BELOW SURFACE NON-WADEABLE STREAM - SAMPLED 1.5' BELOW SURFACE (SHOULD BE MID-DEPTH OR 3 FT BELOW SURFACE).
MOUR-08	BACK CREEK - SMUB	8/12/2011	9:45 AM	N	BASE FLOW	HIGH	18.3	BRIDGE	CLEAR	CALM	CLEAR, PARTLY CLOUDY	RUN	FLOOD	MEDIUM STAINED	NON-WADEABLE/3 FT BELOW SURFACE

Organization 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	Tide Stage	Water Appearance	Comments
MOUR-08	BACK CREEK - SMUB	8/25/2011	9:40 AM	N	BASE FLOW	HIGH	20.0	BRIDGE	MOSTLY CLOUDY	STRONG WIND	PARTLY CLOUDY	RUN	HIGH EBB	CLEAR	WADEABLE/MID-DEPTH DO METER MEMBRANE NOT INSPECTED.
MOUR-08	BACK CREEK - SMUB	9/16/2011	2:55 PM	N	BASE FLOW	HIGH	15.6	BRIDGE	PARTLY CLOUDY	STRONG WIND	CLEAR, PARTLY CLOUDY, SHOWERS	RUN	HIGH EBB	MEDIUM STAINED	NON-WADEABLE/3 FT BELOW SURFACE
MOUR-09 RTE 4	MOUSAM RIVER - SM	6/20/2011	9:01 AM	N	BASE FLOW	MEDIUM	13.3	WADING	CLEAR	CALM	CLEAR	RUN		CLEAR	WADEABLE/MID-DEPTH
MOUR-09	MOUSAM RIVER - SM	7/5/2011	8:35 AM	N	BASE FLOW	MEDIUM	17.8	WADING	CLEAR	CALM	PARTLY CLOUDY	RIFFLE		CLEAR	4TH OF JULY - LOTS OF BOAT TRAFIC ON LAKE ESTES, STIRRING SEDIMENT INTO SUSPENSION WADEABLE/MID-DEPTH
MOUR-09	MOUSAM RIVER - SM	7/5/2011	8:35 AM	D				WADING							4TH OF JULY - LOTS OF BOAT TRAFIC ON LAKE ESTES, STIRRING SEDIMENT INTO SUSPENSION WADEABLE/MID-DEPTH
MOUR-09	MOUSAM RIVER - SM	7/5/2011	8:42 AM	N											
MOUR-09	MOUSAM RIVER - SM	7/28/2011	8:44 AM	N	BASE FLOW	LOW	16.1	WADING	CLEAR	CALM	PARTLY CLOUDY	RUN		MEDIUM STAINED	HEAVY RAIN 7/26 IN EARLY EVENING WADEABLE/MID-DEPTH
MOUR-09	MOUSAM RIVER - SM	8/8/2011	8:25 AM	N	BASE FLOW	MEDIUM	21.1	WADING	CLOUDY	CALM	LIGHT RAIN, MOSTLY CLOUDY, SHOWERS	RUN		MEDIUM STAINED	WADEABLE/MID-DEPTH
MOUR-09	MOUSAM RIVER - SM	8/23/2011	9:39 AM	N	BASE FLOW	MEDIUM	14.4	WADING	CLEAR	CALM	CLEAR	RUN		MEDIUM STAINED	WADEABLE/MID-DEPTH DID NOT COMPLETE CHAIN OF CUSTODY FOR DATASHEET
MOUR-09	MOUSAM RIVER - SM	8/23/2011	9:39 AM	D				WADING							WADEABLE/MID-DEPTH DID NOT COMPLETE CHAIN OF CUSTODY FOR DATASHEET
MOUR-09	MOUSAM RIVER - SM	9/14/2011	11:27 AM	N	BASE FLOW	MEDIUM	22.2	WADING	MOSTLY CLOUDY	BREEZE	PARTLY CLOUDY	RUN		MEDIUM STAINED	WADEABLE/MID-DEPTH DID NOT COMPLETE CHAIN OF CUSTODY FOR DATASHEET
MOUR-09	MOUSAM RIVER - SM	9/30/2011	8:29 AM	N											
MOUR-09	MOUSAM RIVER - SM	9/30/2011	8:30 AM	N	STRM FLOW	HIGH	14.4	WADING	PARTLY CLOUDY	CALM	HEAVY RAIN	RUN		MEDIUM STAINED	WADEABLE/MID-DEPTH DID NOT COMPLETE CHAIN OF CUSTODY FOR DATASHEET
MOUR-10 NEW DAM RD	MOUSAM RIVER - SM	6/20/2011	9:22 AM	N	BASE FLOW	MEDIUM	13.3	BRIDGE	CLEAR	CALM	CLEAR	RUN		MEDIUM STAINED	NON-WADEABLE/MID-DEPTH
MOUR-10	MOUSAM RIVER - SM	7/5/2011	9:06 AM	N	BASE FLOW	MEDIUM	17.8	BRIDGE	CLEAR	CALM	PARTLY CLOUDY	RUN		MEDIUM STAINED	4TH OF JULY - LOTS OF BOAT TRAFIC ON LAKE ESTES, STIRRING SEDIMENT INTO SUSPENSION NON-WADEABLE/MID-DEPTH
MOUR-10	MOUSAM RIVER - SM	7/28/2011	9:00 AM	N	BASE FLOW	MEDIUM	16.1	BRIDGE	CLEAR	CALM	PARTLY CLOUDY	RUN		MEDIUM STAINED	HEAVY RAIN 7/26 IN EARLY EVENING NON-WADEABLE/MID-DEPTH
MOUR-10	MOUSAM RIVER - SM	7/28/2011	9:03 AM	N											
MOUR-10	MOUSAM RIVER - SM	7/28/2011	9:03 AM	L											
MOUR-10	MOUSAM RIVER - SM	8/8/2011	8:50 AM	N	BASE FLOW	MEDIUM	21.1	BRIDGE	CLOUDY	CALM	LIGHT RAIN, MOSTLY CLOUDY	RUN		MEDIUM STAINED	LEVEL SUBJECT TO ESTES DAM NON-WADEABLE/MID-DEPTH
MOUR-10	MOUSAM RIVER - SM	8/8/2011	8:50 AM	L											
MOUR-10	MOUSAM RIVER - SM	8/23/2011	9:55 AM	N	BASE FLOW	MEDIUM	14.4	BRIDGE	CLEAR	CALM	CLEAR	RUN		MEDIUM STAINED	P/O ESTES LAKE NON-WADEABLE/MID-DEPTH DID NOT COMPLETE CHAIN OF CUSTODY FOR DATASHEET
MOUR-10	MOUSAM RIVER - SM	9/14/2011	11:40 AM	N											
MOUR-10	MOUSAM RIVER - SM	9/14/2011	11:42 AM	N	BASE FLOW	MEDIUM	22.2	BRIDGE	MOSTLY CLOUDY	BREEZE	PARTLY CLOUDY	RUN		MEDIUM STAINED	NON-WADEABLE/MID-DEPTH DID NOT COMPLETE CHAIN OF CUSTODY FOR DATASHEET
MOUR-10	MOUSAM RIVER - SM	9/30/2011	8:43 AM	N	STRM FLOW	HIGH	14.4	BRIDGE	PARTLY CLOUDY	CALM	HEAVY RAIN	RUN		MEDIUM STAINED	NON-WADEABLE/MID-DEPTH DID NOT COMPLETE CHAIN OF CUSTODY FOR DATASHEET
MOUR-10	MOUSAM RIVER - SM	9/30/2011	8:46 AM	N											
MOUSMB-01 MAST ROAD	MIDDLE BRANCH MO	6/20/2011	8:27 AM	N	BASE FLOW	MEDIUM	13.3	BRIDGE	CLEAR	CALM	CLEAR	RUN		MEDIUM STAINED	NON-WADEABLE/MID-DEPTH
MOUSMB-01	MIDDLE BRANCH MO	7/5/2011	7:58 AM	N	BASE FLOW	LOW	17.8	BRIDGE	CLEAR	CALM	PARTLY CLOUDY	RUN		MEDIUM STAINED	NON-WADEABLE/MID-DEPTH
MOUSMB-01	MIDDLE BRANCH MO	7/28/2011	8:12 AM	N	BASE FLOW	LOW	16.1	BRIDGE	CLEAR	CALM	PARTLY CLOUDY	RUN		MEDIUM STAINED	HEAVY RAIN 7/26 IN EARLY EVENING NON-WADEABLE/MID-DEPTH
MOUSMB-01	MIDDLE BRANCH MO	8/8/2011	8:09 AM	N	BASE FLOW	MEDIUM	21.1	BRIDGE	CLOUDY	CALM	LIGHT RAIN, MOSTLY CLOUDY	RUN		MEDIUM STAINED	NON-WADEABLE/MID-DEPTH

Organization 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	Tide Stage	Water Appearance	Comments
MOUSMB-01	MIDDLE BRANCH MO	8/8/2011	8:09 AM	D				BRIDGE							NON-WADEABLE/MID-DEPTH
MOUSMB-01	MIDDLE BRANCH MO	8/23/2011	9:10 AM	N	BASE FLOW	MEDIUM	14.4	BRIDGE	CLEAR	CALM	CLEAR	RUN		MEDIUM STAINED	NON-WADEABLE/MID-DEPTH DID NOT COMPLETE CHAIN OF CUSTODY FOR DATASHEET
MOUSMB-01	MIDDLE BRANCH MO	9/14/2011	11:04 AM	N	BASE FLOW	MEDIUM	22.2	BRIDGE	MOSTLY CLOUDY	BREEZE	PARTLY CLOUDY	RUN		MEDIUM STAINED	NON-WADEABLE/MID-DEPTH DID NOT COMPLETE CHAIN OF CUSTODY FOR DATASHEET
MOUSMB-01	MIDDLE BRANCH MO	9/30/2011	8:06 AM	N	STRM FLOW	HIGH	14.4	BRIDGE	PARTLY CLOUDY	CALM	HEAVY RAIN	RUN		MEDIUM STAINED	NON-WADEABLE/MID-DEPTH DID NOT COMPLETE CHAIN OF CUSTODY FOR DATASHEET
MOUSMB-02 SWETTS BRIDGE	MIDDLE BRANCH MO	6/20/2011	8:40 AM	N	BASE FLOW	MEDIUM	13.3	BRIDGE	CLEAR	CALM	CLEAR	RUN		MEDIUM STAINED	NON-WADEABLE/MID-DEPTH
MOUSMB-02	MIDDLE BRANCH MO	6/20/2011	8:42 AM	N											
MOUSMB-02	MIDDLE BRANCH MO	7/5/2011	8:21 AM	N	BASE FLOW	LOW	17.8	BRIDGE	CLEAR	CALM	PARTLY CLOUDY	RUN		MEDIUM STAINED	NON-WADEABLE/MID-DEPTH
MOUSMB-02	MIDDLE BRANCH MO	7/28/2011	8:28 AM	N											
MOUSMB-02	MIDDLE BRANCH MO	7/28/2011	8:33 AM	N	BASE FLOW	LOW	16.1	BRIDGE	CLEAR	CALM	PARTLY CLOUDY	RUN		MEDIUM STAINED	HEAVY RAIN 7/26 IN EARLY EVENING NON-WADEABLE/MID-DEPTH
MOUSMB-02	MIDDLE BRANCH MO	8/8/2011	8:21 AM	N	BASE FLOW	MEDIUM	21.1	BRIDGE	CLOUDY	CALM	LIGHT RAIN, MOSTLY CLOUDY	RUN		MEDIUM STAINED	LEVEL SUBJECT TO ESTES DAM, SLIGHTLY FOAMY NON-WADEABLE/MID-DEPTH
MOUSMB-02	MIDDLE BRANCH MO	8/8/2011	8:24 AM	N											
MOUSMB-02	MIDDLE BRANCH MO	8/23/2011	9:22 AM	N	BASE FLOW	MEDIUM	14.4	BRIDGE	CLEAR	CALM	CLEAR	RUN		MEDIUM STAINED	NON-WADEABLE/MID-DEPTH DID NOT COMPLETE CHAIN OF CUSTODY FOR DATASHEET
MOUSMB-02	MIDDLE BRANCH MO	9/14/2011	11:13 AM	N	BASE FLOW	MEDIUM	22.2	BRIDGE	MOSTLY CLOUDY	BREEZE	PARTLY CLOUDY	RUN		MEDIUM STAINED	NON-WADEABLE/MID-DEPTH DID NOT COMPLETE CHAIN OF CUSTODY FOR DATASHEET
MOUSMB-02	MIDDLE BRANCH MO	9/14/2011	11:15 AM	N											
MOUSMB-02	MIDDLE BRANCH MO	9/30/2011	8:15 AM	N	STRM FLOW	HIGH	14.4	BRIDGE	PARTLY CLOUDY	CALM	HEAVY RAIN	RUN		MEDIUM STAINED	NON-WADEABLE/MID-DEPTH DID NOT COMPLETE CHAIN OF CUSTODY FOR DATASHEET
MOUSMB-02	MIDDLE BRANCH MO	9/30/2011	8:17 AM	N											

Mousam River - Mousam & Kennebunk Rivers Alliance (Non-approved Sites)															
MOUR-04 MILL STREET	MOUSAM RIVER - SM	6/7/2011	8:35 AM	N	BASE FLOW	LOW	15.0	WADING	CLEAR	CALM	CLEAR	RUN		MEDIUM STAINED	NON-WADEABLE/3 FT BELOW SURFACE
MOUR-04	MOUSAM RIVER - SM	6/24/2011	9:20 AM	N	STRM FLOW	HIGH	11.7	WADING	LIGHT RAIN	BREEZE	CLOUDY, HEAVY RAIN, LIGHT RAIN	RUN		MEDIUM STAINED	COULDN'T GET SAMPLE IN GOOD RUN BECAUSE WATER WAS TOO HIGH WITH STEEP DROPOFF. NON-WADEABLE/3 FT BELOW SURFACE DO METER MEMBRANE NOT INSPECTED.
MOUR-04	MOUSAM RIVER - SM	6/24/2011	9:20 AM	D				WADING							COULDN'T GET SAMPLE IN GOOD RUN BECAUSE WATER WAS TOO HIGH WITH STEEP DROPOFF. NON-WADEABLE/3 FT BELOW SURFACE DO METER MEMBRANE NOT INSPECTED.
MOUR-04	MOUSAM RIVER - SM	7/7/2011	9:05 AM	N	BASE FLOW	LOW	21.7	WADING	CLEAR	CALM	CLEAR, SHOWERS	RUN		TURBID	NON-WADEABLE/3 FT BELOW SURFACE
MOUR-04	MOUSAM RIVER - SM	8/12/2011	8:10 AM	N	BASE FLOW	MEDIUM	18.3	WADING	CLEAR	CALM	CLEAR, PARTLY CLOUDY	RUN		TURBID	NON-WADEABLE/MID-DEPTH
MOUR-04	MOUSAM RIVER - SM	8/12/2011	8:20 AM	N											
MOUR-04	MOUSAM RIVER - SM	8/25/2011	8:10 AM	N	BASE FLOW	MEDIUM	20.0	WADING	MOSTLY CLOUDY	STRONG WIND	PARTLY CLOUDY	RUN		MEDIUM STAINED	NON-WADEABLE/3 FT BELOW SURFACE DO METER MEMBRANE NOT INSPECTED.
MOUR-04	MOUSAM RIVER - SM	8/25/2011	8:15 AM	N											
MOUR-04	MOUSAM RIVER - SM	9/16/2011	1:30 PM	N	BASE FLOW	HIGH	15.6	WADING	PARTLY CLOUDY	STRONG WIND	CLEAR, PARTLY CLOUDY, SHOWERS	RUN		MEDIUM STAINED	NON-WADEABLE/3 FT BELOW SURFACE
MOUR-04	MOUSAM RIVER - SM	9/16/2011	1:35 PM	N											