Section 5-5
No Name Brook & Tributaries (No Name Pond Watershed Assoc.)

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

Overview

No Name Brook is listed on the MeDEP "2010 Integrated Water Quality Monitoring and Assessment Report" as an impaired stream. It is specifically listed in Category 5-A: "Rivers and Streams Impaired by Pollutants Other Than Those Listed in 5-B through 5-D (TMDL Required)". The specific parameters causing impairment are E. Coli bacteria and dissolved oxygen. Because of the listing and because there was little water quality data available, the City of Lewiston was interested in obtaining further information about the brook. The City contacted the VRMP Program in 2009 and enlisted the assistance of the No Name Pond Watershed Association to help with the monitoring.

No Name Brook begins at the outlet of No Name Pond in the City of Lewiston. From there, it meanders through a large wetland area to the east of Golder Road, crosses under Golder Road, continues in a westerly direction through wooded land toward Grove Street, turns to the south and crosses under Grove Street, then follows a southerly path through wooded land, passing under I-95 and continuing in a meandering path south-westerly parallel to Lisbon Street until discharging into the Sabattus River. Sucker Brook (which is also monitored) is an inlet stream to No Name Pond.

The overall purpose of monitoring is to assess water quality as it pertains towards meeting water quality classification standards. The No Name Brook Sampling and Analysis Plan states that the objectives of monitoring are to gather baseline data with which to monitor the water quality and provide the basis for the development of the TMDL (Total Maximum Daily Load). The Clean Water Act requires that a TMDL, which is an assessment of impairments and pollutant loading reductions needed to meet water quality standards, be developed for impaired waters.

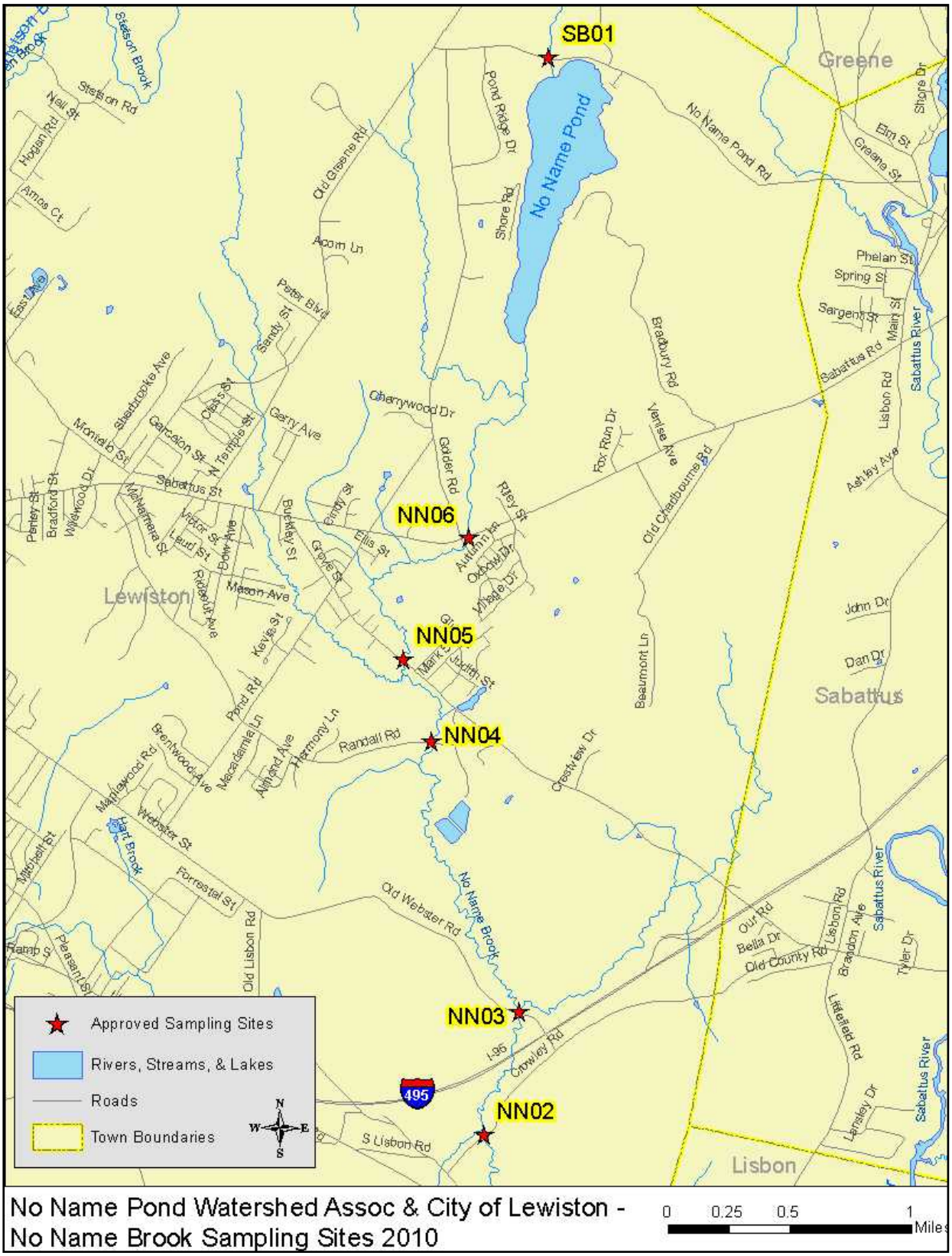
Methods

The volunteers monitored No Name Brook in 2010 at five sites and Sucker Brook at one site. All of the sites are VRMP approved sites. Table 1 provided a list of the sites and Figure 1 is a map of the sampling site locations.

Table 1: Sampling Sites

VRMP Site ID	Organization Site Code	Sample Location	Class
NO NAME BROOK-ASANN33-VRMP	NN02	Crowley Road	B
NO NAME BROOK-ASANN40-VRMP	NNO3	Old Webster Road	B
NO NAME BROOK-ASANN56-VRMP	NNO4	Randall Street	B
NO NAME BROOK-ASANN62-VRMP	NN05	Grove Street	B
NO NAME BROOK-ASANN72-VRMP	NN06	Sabattus Street	B
SUCKER BROOK-ASANN94-VRMP	SB01	Sucker Brook Tributary	B

Figure 1: Map of Sampling Sites



Monitoring was conducted from July through September 1-3 times per month. At each site, the monitors made direct measurements for water temperature and dissolved oxygen using a handheld YSI 550A meter. Conductivity was measured using an Oakton EC 11+ Testr conductivity pen. Grab samples were collected for E.Coli bacteria and delivered to the Lewiston-Auburn Wastewater Pollution Control Facility for analysis.

Results

Dissolved Oxygen

Dissolved oxygen was measured 4-6 times at each of the six sampling sites. Monitoring occurred from July to September. 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. Table 2 and Table 3 provide a summary of dissolved oxygen concentration and % saturation for each site including minimum, maximum and average values.

Table 2: Dissolved Oxygen Concentration (mg/l) Summary

Site	Approved Site	# of Samples	Minimum Value	Maximum Value	Average Value
NN02	Y	6	4.0	6.9	5.6
NN03	Y	6	4.8	7.2	6.4
NN04	Y	5	3.2	5.2	4.2
NN05	Y	6	0.6	2.3	1.4
NN06	Y	4	0.7	2.5	1.9
SB01	Y	4	6.4	8.9	7.4

Table 3: Dissolved Oxygen Saturation (%) Summary

Site	Approved Site	# of Samples	Minimum Value	Maximum Value	Average Value
NN02	Y	6	48	75	60
NN03	Y	6	55	76	67
NN04	Y	5	36	53	46
NN05	Y	6	7	25	18
NN06	Y	4	8	23	17
SB01	Y	4	58	87	73

Dissolved oxygen concentrations measured at No Name Brook and Sucker Brook ranged from 0.6 to 8.9 mg/l. At Site NN02, the lowest readings occurred in July (7/17/10- 4.0 mg/l) and August (8/14/10- 4.6 mg/l). All the values at this site were below the Class B standard of 7.0 mg/l. All of its percent saturation values, except for 7/3/10 (75%) were below the Class B standard of 75% saturation. Site NN03 follows a similar pattern to Site NN02, but values were a bit higher. All but 1 sample did not meet Class B criteria- 7/3/2010 (7.2 mg/l and 76% saturation). At Site NNO4, all the readings were low with values ranging from 3.2 to 5.2 mg/l. Sites NN05 and NN06 had very low readings with values at these two sites ranging from 0.6 to 2.5 mg/l. Site SB01 overall had higher values than the other sites. However two of the values were below the Class B standard for both concentration and % saturation.

Overall, dissolved oxygen was low to very low at all of the No Name Brook sites. It is suspected that this may in large part be due to natural conditions as well as seasonal flow. Wetlands are common in the watershed and they border the stream in many places. The largest wetlands occur in the upper part of the brook. Also, in most places, No Name Brook is a fairly low gradient stream, which tends to aerate and dissolve oxygen gas from the atmosphere less quickly and readily than shallow, turbulent, fast-flowing streams. Flow conditions in streams are generally lowest during the mid-later part of the summer. If flows were very low, then that could also affect dissolved oxygen.

Water Temperature

Temperature was measured 4-6 times at each of the six sampling sites. Monitoring occurred from July to 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.

Table 4 provides a summary of temperature values for each site including minimum, maximum and average values.

Table 4: Temperature (˚ Celsius) Summary

Site	Approved Site	# of Samples	Minimum Value	Maximum Value	Average Value
NN02	Y	6	15.8	23.5	18.6
NN03	Y	6	15.8	22.1	18.0
NN04	Y	5	16.1	21.6	18.5
NN05	Y	6	16.2	20.7	18.4
NN06	Y	4	16.3	17.7	17.3
SB01	Y	4	14.3	19.0	16.1

Temperature measured at No Name Brook and Sucker Brook ranged from 14.3 to 23.5˚C (Celsius). At Site NNO2, moderately high temperatures occurred from mid-July to mid-August, with temperatures ranging from 19 to 23.5˚C during this period. Temperatures at Site NN03 were a bit lower, with values ranging from 17.5 to 22.1˚C from early July to mid-August. Site NN04 was similar to Site NNO3 with values ranging from 17.6 to 21.6˚C from early July to mid-August. Site NN05 was similar to Sites NN03 and NN04. Temperatures here ranged from 18.2 to 20.7˚C from early July to mid-August. At Site NNO6, temperatures were a bit cooler, ranging from 16.3 to 17.7˚C for July and August. Site SB01 had one moderately high temperature (19˚C-7/17/10), but the remaining temperatures were overall cooler ranging from 14.3 to 15.9˚C.

Specific Conductance

Specific conductance was measured 4-6 times at each of the six sampling sites. Monitoring occurred from July to 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. Table 5 provides a summary of specific conductance values for each site including minimum, maximum and average values.

Table 5: Specific Conductance (micro-ohms/centimeter) Summary

Site	Approved Site	# of Samples	Minimum Value	Maximum Value	Average Value
NN02	Y	4	25	241	153
NN03	Y	4	128	248	202
NN04	Y	6	61	177	128
NN05	Y	6	24	113	88
NN06	Y	5	77	91	86
SB01	Y	4	102	132	115

Most Maine streams and rivers in undeveloped watersheds have specific conductance values that are lower or much lower than 100 us/cm. Overall, the highest values in No Name Brook occurred at the lower sites in the watershed. Site NNO3 had the highest values with all values above 128 us/cm. Sites NNO2 and NNO3 are lower in the watershed and below more development which likely explains the higher values here. Sucker Brook values are considered low to moderate.

Bacteria

E. Coli bacteria were sampled 4-6 times at each of the six sampling sites. Monitoring occurred from July to September. All of the samples were taken during baseflow 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 Sept 30th, E. Coli of human and domestic origin shall not exceed a geometric mean of 64/100 ml (milliliters) or an instantaneous level of 236/100 ml.” Table 6 provides a summary of bacteria values for each site including minimum, maximum and geometric means. Geometric means are calculated instead of average because it is more appropriate to use this calculation for something like bacteria where there may be one or more very high or low values that can skew the mean.

Table 6: Bacteria Most Probable Number (MPN) Summary

Site	Bacteria Type	# of Samples	Minimum Value	Maximum Value	Geometric Mean
NN02	E. Coli	6	58	225	160
NN03	E. Coli	6	59	291	163
NN04	E. Coli	5	186	461	258
NN05	E. Coli	6	52	150	56
NN06	E. Coli	5	27	214	87
SB01	E. Coli	4	61	325	139

Site NN02 exceeded the geometric mean criterion. Sites NN03 and NNO4 exceeded the geometric mean criterion and the instantaneous criterion was exceeded on 2 sampling events. Site NN06 exceeded the geometric mean criterion. Site SB01 also exceeded the geometric mean criterion and the instantaneous criterion was exceeded on 2 out of 4 sampling events.

Discussion and Recommendations

There are numerous sources of pollution and other stresses to the No Name Brook and Sucker Brook sites monitored by the No Name Pond Watershed Association that could potentially have an impact on water quality. Some of those sources of pollution and stress may include:

- Nonpoint source pollution (e.g., sewage 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.
- 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 large 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:

- All of the No Name Brook sites have very low to low dissolved oxygen. DEP staff looked at the sites with the volunteers during the summer (2011). Sites NN04 and NN05 were sampled in areas that were not flowing. It is recommended that the monitors sample downstream at these sites where it is a riffle/run condition and water is flowing. DEP may also want to walk all or part of the stream to determine potential problems and to what extent natural conditions contribute to these conditions.
- Further study of the high bacteria may be warranted. It would be worthwhile trying to capture 1 or 2 stormflow events to see how stormflow levels compare to baseflow.
- Continue monitoring at all stations to develop a long term trend database.

Appendix A-1. 2010 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)	Turbid. (NTU)	TSS (MG/L)	E Coli Bacteria (MPN/100 ML)
No Name Brook & Tributaries - No Name Pond Watershed Management Association (Approved Sites)													
NN02	NO NAME BROOK - ASANN33 - VRMP	7/3/2010	8:45 AM	N			18	75.5	6.89	153.9			344.8
NN02	NO NAME BROOK - ASANN33 - VRMP	7/17/2010	7:45 AM	N			23.5	47.6	4.01				209.8
NN02	NO NAME BROOK - ASANN33 - VRMP	7/31/2010	8:00 AM	N			19	66.4	6.1				186
NN02	NO NAME BROOK - ASANN33 - VRMP	8/14/2010	7:35 AM	N			19	49.3	4.6	193.8			58.3
NN02	NO NAME BROOK - ASANN33 - VRMP	8/28/2010	7:30 AM	N			16.2	57.5	5.8	25.4			224.7
NN02	NO NAME BROOK - ASANN33 - VRMP	9/11/2010		N			15.8	65.7	6.38	241			96
NN03	NO NAME BROOK - ASANN40 - VRMP	7/3/2010	8:15 AM	N			18	76.5	7.2	128.5			209.8
NN03	NO NAME BROOK - ASANN40 - VRMP	7/17/2010	7:35 AM	N			22.1	55.4	4.81				238.2
NN03	NO NAME BROOK - ASANN40 - VRMP	7/31/2010	7:30 AM	N			18.8	74.2	6.9				290.9
NN03	NO NAME BROOK - ASANN40 - VRMP	8/14/2010	7:25 AM	N			17.5	58.7	5.64	184			58.6
NN03	NO NAME BROOK - ASANN40 - VRMP	8/28/2010	7:15 AM	N			15.8	70.2	6.8	248			166.4
NN03	NO NAME BROOK - ASANN40 - VRMP	9/11/2010	7:20 AM	N			16	69	6.94	246			131.4
NN04	NO NAME BROOK - ASANN56 - VRMP	7/3/2010	8:00 AM	N			18.7	48.7	4.54	115.6			186
NN04	NO NAME BROOK - ASANN56 - VRMP	7/17/2010	7:56 AM	N			21.6	36.2	3.2	178			275.5
NN04	NO NAME BROOK - ASANN56 - VRMP	7/31/2010	7:55 AM	N			18.6	45.5	4.23	109.5			214.3
NN04	NO NAME BROOK - ASANN56 - VRMP	8/14/2010	8:15 AM	N			17.6	43.2	4.05	177			218.7
NN04	NO NAME BROOK - ASANN56 - VRMP	8/28/2010	7:41 AM	N			16.1	53	5.21	61.4			461.1
NN04	NO NAME BROOK - ASANN56 - VRMP	8/28/2010	7:41 AM	D				53	5.21	61.4			
NN05	NO NAME BROOK - ASANN62 - VRMP	7/3/2010	7:46 AM	N			19.1	25	2.29	89.9			150
NN05	NO NAME BROOK - ASANN62 - VRMP	7/17/2010	7:50 AM	N			20.7	7.2	0.6	24.5			52
NN05	NO NAME BROOK - ASANN62 - VRMP	7/31/2010	7:44 AM	N			19.2	18.3	1.68	83.5			35.9
NN05	NO NAME BROOK - ASANN62 - VRMP	7/31/2010	7:44 AM	D			19.3	18.3	1.7	83			
NN05	NO NAME BROOK - ASANN62 - VRMP	8/14/2010	8:00 AM	N			18.2	6.9	0.66	108.5			99.1
NN05	NO NAME BROOK - ASANN62 - VRMP	8/28/2010	7:31 AM	N			16.9	12.2	1.16	108			60.2
NN05	NO NAME BROOK - ASANN62 - VRMP	9/11/2010	7:20 AM	N			16.2	15	1.8	113.3			18.7
NN06	NO NAME BROOK - ASANN72 - VRMP	7/3/2010	7:35 AM	N			17.7	7.6	0.73	77.3			214.3
NN06	NO NAME BROOK - ASANN72 - VRMP	7/17/2010	7:39 AM	N						84			119.8
NN06	NO NAME BROOK - ASANN72 - VRMP	7/31/2010	7:32 AM	N			17.4	21.6	2	87.3			111.6
NN06	NO NAME BROOK - ASANN72 - VRMP	8/14/2010	7:45 AM	N			17.7	16.5	2.4	88			65.7
NN06	NO NAME BROOK - ASANN72 - VRMP	8/28/2010	7:17 AM	N			16.3	23.5	2.46	91.3			27.2
SB01	SUCKER BROOK - ASANN94 - VRMP	7/17/2010	7:15 AM	N			19	77.6	7.5	102			325.5
SB01	SUCKER BROOK - ASANN94 - VRMP	7/31/2010	7:21 AM	N			15.1	57.9	6.4	102			78.9
SB01	SUCKER BROOK - ASANN94 - VRMP	8/14/2010	7:20 AM	N			15.9	70	6.9	132.2			60.9
SB01	SUCKER BROOK - ASANN94 - VRMP	8/28/2010		N			14.3	86.6	8.9	123.4			238.2

Appendix A-2. 2010 observational data and quality assurance/quality control (QA/QC) notes for "approved" and "non-approved" sites.
** "N" = normal environmental sample; "D" = field duplicate; "D.O." = dissolved oxygen; "Spec. Cond" = specific conductance; "TSS" = total suspended solids
Refer to Appendix A-1 for water quality data

Organization Site Code	VRMP Site ID	Date	Time	** Sample Type Qualifier	Flow	Stage	Air Temp (DEG C)	Sample Location	Current Weather	Air Condition	Past 24HR Weather	Habitat	Tide Stage	Water Appearance	Comments
No Name Brook & Tributaries - No Name Pond Watershed Management Association (Approved Sites)															
NN02	NO NAME BROOK - ASANN33 - VRMP	7/3/2010	8:45 AM	N	BASE FLOW	MEDIUM		CULVERT	CLEAR	CALM	CLEAR	RIFFLE		MEDIUM	NON-WADEABLE/MID-DEPTH
NN02	NO NAME BROOK - ASANN33 - VRMP	7/17/2010	7:45 AM	N	BASE FLOW	LOW	67	BRIDGE	CLEAR	CALM	CLEAR	RIFFLE		MEDIUM	NON-WADEABLE/MID-DEPTH
NN02	NO NAME BROOK - ASANN33 - VRMP	7/31/2010	8:00 AM	N	BASE FLOW	LOW	50	BRIDGE	CLEAR	CALM	CLEAR	RIFFLE		MEDIUM	CALIBRATION. DID NOT COMPLETE ANALYST PORTION OF CHAIN OF CUSTODY FOR LAB SAMPLE. RECORDED 0 FOR SPECIFIC CONDUCTANCE - NOT RECORDED ON PRE-EDD. NON-WADEABLE/MID-DEPTH
NN02	NO NAME BROOK - ASANN33 - VRMP	8/14/2010	7:35 AM	N	BASE FLOW	LOW	53	BRIDGE	CLEAR		CLEAR	RIFFLE		MEDIUM	DID NOT RECORD DO READING/VALUE AFTER CALIBRATION. DID NOT COMPLETE ANALYST PORTION OF CHAIN OF CUSTODY FOR LAB SAMPLE. DO VALUE LOW. NON-WADEABLE/MID-DEPTH
NN02	NO NAME BROOK - ASANN33 - VRMP	8/28/2010	7:30 AM	N	BASE FLOW	LOW	51	BRIDGE	CLEAR	CALM	CLEAR	RIFFLE		MEDIUM	DID NOT RECORD DO READING/VALUE AFTER CALIBRATION. DID NOT COMPLETE ANALYST PORTION OF CHAIN OF CUSTODY FOR LAB SAMPLE. NON-WADEABLE/MID-DEPTH
NN02	NO NAME BROOK - ASANN33 - VRMP	9/11/2010		N	BASE FLOW	LOW	50	BRIDGE	CLEAR	CALM	CLEAR	RIFFLE		MEDIUM	DID NOT COMPLETE ANALYST PORTION OF CHAIN OF CUSTODY FOR LAB SAMPLE. LAB PARAMETERS ONLY PARTIALLY COMPLETED. TIME SAMPLE WAS NOT WRITTEN DOWN - ESTIMATED TIME BY CHAIN OF CUSTODY TIME. NON-WADEABLE/MID-DEPTH
NN03	NO NAME BROOK - ASANN40 - VRMP	7/3/2010	8:15 AM	N	BASE FLOW	MEDIUM		CULVERT	CLEAR	CALM	CLEAR	RIFFLE		MEDIUM	NON-WADEABLE/MID-DEPTH
NN03	NO NAME BROOK - ASANN40 - VRMP	7/17/2010	7:35 AM	N	BASE FLOW	LOW	67	CULVERT	CLEAR	CALM	CLEAR	RIFFLE		MEDIUM	NON-WADEABLE/MID-DEPTH
NN03	NO NAME BROOK - ASANN40 - VRMP	7/31/2010	7:30 AM	N	BASE FLOW	LOW	50	CULVERT	CLEAR	CALM	CLEAR	RIFFLE		MEDIUM	CALIBRATION. DID NOT COMPLETE ANALYST PORTION OF CHAIN OF CUSTODY FOR LAB SAMPLE. RECORDED 0 FOR SPECIFIC CONDUCTANCE - NOT RECORDED ON PRE-EDD. NON-WADEABLE/MID-DEPTH
NN03	NO NAME BROOK - ASANN40 - VRMP	8/14/2010	7:25 AM	N	BASE FLOW	LOW	53	CULVERT	CLEAR		CLEAR	RIFFLE		MEDIUM	DID NOT RECORD DO READING/VALUE AFTER CALIBRATION. DID NOT COMPLETE ANALYST PORTION OF CHAIN OF CUSTODY FOR LAB SAMPLE. DO VALUE LOW. NON-WADEABLE/MID-DEPTH
NN03	NO NAME BROOK - ASANN40 - VRMP	8/28/2010	7:15 AM	N	BASE FLOW	LOW	51	CULVERT	CLEAR	CALM	CLEAR	RIFFLE		MEDIUM	DID NOT RECORD DO READING/VALUE AFTER CALIBRATION. DID NOT COMPLETE ANALYST PORTION OF CHAIN OF CUSTODY FOR LAB SAMPLE. NON-WADEABLE/MID-DEPTH
NN03	NO NAME BROOK - ASANN40 - VRMP	9/11/2010	7:20 AM	N	BASE FLOW	LOW	50	CULVERT	CLEAR	CALM	CLEAR	RIFFLE		MEDIUM	DID NOT COMPLETE ANALYST PORTION OF CHAIN OF CUSTODY FOR LAB SAMPLE. LAB PARAMETERS ONLY PARTIALLY COMPLETED. NON-WADEABLE/MID-DEPTH
NN04	NO NAME BROOK - ASANN56 - VRMP	7/3/2010	8:00 AM	N	BASE FLOW	MEDIUM		CULVERT	CLEAR	CALM	CLEAR	RIFFLE		MEDIUM	DO VALUE IS VERY LOW. LAB PARAMETERS TO BE SAMPLED PORTION OF FIELD SHEET WAS ONLY PARTIALLY COMPLETED. NON-WADEABLE/MID-DEPTH

Organization Site Code	VRMP Site ID	Date	Time	** Sample Type Qualifier	Flow	Stage	Air Temp (DEG C)	Sample Location	Current Weather	Air Con-dition	Past 24HR Weather	Habitat	Tide Stage	Water Appear-ance	Comments
NN04	NO NAME BROOK - ASANN56 - VRMP	7/17/2010	7:56 AM	N	BASE FLOW	HIGH	65	CULVERT	CLEAR	CALM	PARTLY CLO	RIFFLE		MEDIUM	VERY LOW DO. LAB PARAMETERS TO BE SAMPLED PORTION OF FIELD SHEET WAS ONLY PARTIALLY COMPLETED. DID NOT COMPLETE CHAIN OF CUSTODY FOR ANALYST FOR LAB SAMPLE. NON-WADEABLE/MID-DEPTH
NN04	NO NAME BROOK - ASANN56 - VRMP	7/31/2010	7:55 AM	N		LOW	48	BRIDGE	CLEAR	CALM	CLEAR				LOW DO. LAB PARAMETERS TO BE SAMPLED PORTION OF FIELD SHEET WAS ONLY PARTIALLY COMPLETED. DID NOT COMPLETE CHAIN OF CUSTODY FOR ANALYST FOR LAB SAMPLE. OBSERVATIONAL DATA ONLY PARTIALLY COMPLETED. NON-WADEABLE/MID-DEPTH
NN04	NO NAME BROOK - ASANN56 - VRMP	8/14/2010	8:15 AM	N	BASE FLOW	MEDIUM		BRIDGE	CLEAR	CALM	CLEAR	RIFFLE		MEDIUM	DID NOT RECORD DO READING/VALUE AFTER CALIBRATION. VERY LOW DO. DID NOT COMPLETE CHAIN OF CUSTODY FOR ANALYST FOR LAB SAMPLE. WADEABLE/1.5 FT BELOW SURFACE
NN04	NO NAME BROOK - ASANN56 - VRMP	8/28/2010	7:41 AM	N	BASE FLOW	HIGH	51	BANK	CLEAR	CALM	CLEAR	RIFFLE		MEDIUM	SAMPLE LOCATION/APPROACH MAY BE FROM STREAMBANK. NO DO SAMPLE COLLECTION METHOD INDICATED. LAB PARAMETERS TO BE SAMPLED PORTION OF FIELD SHEET WAS ONLY PARTIALLY COMPLETED. LOW DO. DID NOT COMPLETE CHAIN OF CUSTODY FOR ANALYST FOR LAB SAMPLE. NON-WADEA
NN04	NO NAME BROOK - ASANN56 - VRMP	8/28/2010	7:41 AM	D				BANK							SAMPLE LOCATION/APPROACH MAY BE FROM STREAMBANK. NO DO SAMPLE COLLECTION METHOD INDICATED. LAB PARAMETERS TO BE SAMPLED PORTION OF FIELD SHEET WAS ONLY PARTIALLY COMPLETED. LOW DO. DID NOT COMPLETE CHAIN OF CUSTODY FOR ANALYST FOR LAB SAMPLE. NON-WADEA
NN05	NO NAME BROOK - ASANN62 - VRMP	7/3/2010	7:46 AM	N	BASE FLOW	MEDIUM		CULVERT	CLEAR	CALM	CLEAR	RIFFLE		MEDIUM	DO VALUE IS VERY LOW. LAB PARAMETERS TO BE SAMPLED PORTION OF FIELD SHEET WAS ONLY PARTIALLY COMPLETED. NON-WADEABLE/MID-DEPTH
NN05	NO NAME BROOK - ASANN62 - VRMP	7/17/2010	7:50 AM	N	BASE FLOW	HIGH	65	CULVERT	CLEAR	CALM	PARTLY CLO	RIFFLE		MEDIUM	VERY LOW DO. LAB PARAMETERS TO BE SAMPLED PORTION OF FIELD SHEET WAS ONLY PARTIALLY COMPLETED. DID NOT COMPLETE CHAIN OF CUSTODY FOR ANALYST FOR LAB SAMPLE. NON-WADEABLE/MID-DEPTH
NN05	NO NAME BROOK - ASANN62 - VRMP	7/31/2010	7:44 AM	N	BASE FLOW	LOW	48	CULVERT	CLEAR	CALM	CLEAR	RIFFLE		MEDIUM	VERY LOW DO. LAB PARAMETERS TO BE SAMPLED PORTION OF FIELD SHEET WAS ONLY PARTIALLY COMPLETED. DID NOT COMPLETE CHAIN OF CUSTODY FOR ANALYST FOR LAB SAMPLE. NON-WADEABLE/MID-DEPTH
NN05	NO NAME BROOK - ASANN62 - VRMP	7/31/2010	7:44 AM	D				CULVERT							VERY LOW DO. LAB PARAMETERS TO BE SAMPLED PORTION OF FIELD SHEET WAS ONLY PARTIALLY COMPLETED. DID NOT COMPLETE CHAIN OF CUSTODY FOR ANALYST FOR LAB SAMPLE. NON-WADEABLE/MID-DEPTH
NN05	NO NAME BROOK - ASANN62 - VRMP	8/14/2010	8:00 AM	N	BASE FLOW	MEDIUM		BRIDGE	CLEAR	CALM	CLEAR	RIFFLE		MEDIUM	DID NOT RECORD DO READING/VALUE AFTER CALIBRATION. VERY LOW DO. DID NOT COMPLETE CHAIN OF CUSTODY FOR ANALYST FOR LAB SAMPLE. WADEABLE/1.5 FT BELOW SURFACE

Organization Site Code	VRMP Site ID	Date	Time	** Sample Type Qualifier	Flow	Stage	Air Temp (DEG C)	Sample Location	Current Weather	Air Con-dition	Past 24HR Weather	Habitat	Tide Stage	Water Appear-ance	Comments
NN05	NO NAME BROOK - ASANN62 - VRMP	8/28/2010	7:31 AM	N	BASE FLOW	HIGH	51	CULVERT	CLEAR	CALM	CLEAR	RIFFLE		MEDIUM	LAB PARAMETERS TO BE SAMPLED PORTION OF FIELD SHEET WAS ONLY PARTIALLY COMPLETED. LOW DO. DID NOT COMPLETE CHAIN OF CUSTODY FOR ANALYST FOR LAB SAMPLE. WADEABLE/MID-DEPTH
NN05	NO NAME BROOK - ASANN62 - VRMP	9/11/2010	7:20 AM	N	BASE FLOW	HIGH	48	BRIDGE	CLEAR	CALM	PARTLY CLC	RIFFLE		CLEAR	CALIBRATION READING LOW. LAB PARAMETERS TO BE SAMPLED PORTION OF FIELD SHEET WAS ONLY PARTIALLY COMPLETED. LOW DO. DID NOT COMPLETE CHAIN OF CUSTODY FOR ANALYST FOR LAB SAMPLE. NON-WADEABLE/MID-DEPTH
NN06	NO NAME BROOK - ASANN72 - VRMP	7/3/2010	7:35 AM	N	BASE FLOW	LOW		CULVERT	CLEAR	CALM	CLEAR	RIFFLE		MEDIUM	DO VALUE IS VERY LOW. LAB PARAMETERS TO BE SAMPLED PORTION OF FIELD SHEET WAS ONLY PARTIALLY COMPLETED. NON-WADEABLE/MID-DEPTH
NN06	NO NAME BROOK - ASANN72 - VRMP	7/17/2010	7:39 AM	N	BASE FLOW	HIGH	65	CULVERT	CLEAR	CALM	PARTLY CLC	RIFFLE		MEDIUM	LAB PARAMETERS TO BE SAMPLED PORTION OF FIELD SHEET WAS ONLY PARTIALLY COMPLETED. DID NOT COMPLETE CHAIN OF CUSTODY FOR ANALYST FOR LAB SAMPLE. NON-WADEABLE/MID-DEPTH
NN06	NO NAME BROOK - ASANN72 - VRMP	7/31/2010	7:32 AM	N	BASE FLOW	LOW	48	CULVERT	CLEAR	CALM	CLEAR	RIFFLE		MEDIUM	VERY LOW DO. LAB PARAMETERS TO BE SAMPLED PORTION OF FIELD SHEET WAS ONLY PARTIALLY COMPLETED. DID NOT COMPLETE CHAIN OF CUSTODY FOR ANALYST FOR LAB SAMPLE. NON-WADEABLE/MID-DEPTH
NN06	NO NAME BROOK - ASANN72 - VRMP	8/14/2010	7:45 AM	N	BASE FLOW	LOW		BRIDGE	CLEAR	CALM	CLEAR	RIFFLE		MEDIUM	DID NOT RECORD DO READING/VALUE AFTER CALIBRATION. LOW DO. DID NOT COMPLETE CHAIN OF CUSTODY FOR ANALYST FOR LAB SAMPLE. WADEABLE/1.5 FT BELOW SURFACE
NN06	NO NAME BROOK - ASANN72 - VRMP	8/28/2010	7:17 AM	N	BASE FLOW	HIGH	51	CULVERT	CLEAR	CALM	CLEAR	RIFFLE		MEDIUM	LAB PARAMETERS TO BE SAMPLED PORTION OF FIELD SHEET WAS ONLY PARTIALLY COMPLETED. LOW DO. DID NOT COMPLETE CHAIN OF CUSTODY FOR ANALYST FOR LAB SAMPLE. WADEABLE/MID-DEPTH
SB01	SUCKER BROOK - ASANN94 - VRMP	7/17/2010	7:15 AM	N	BASE FLOW	LOW	65	WADING	CLEAR	CALM	PARTLY CLC	RIFFLE		CLEAR	NO VERTICAL DEPTH RECORDED. LAB PARAMETERS TO BE SAMPLED PORTION OF FIELD SHEET WAS ONLY PARTIALLY COMPLETED. DID NOT COMPLETE CHAIN OF CUSTODY FOR ANALYST FOR LAB SAMPLE.
SB01	SUCKER BROOK - ASANN94 - VRMP	7/31/2010	7:21 AM	N	BASE FLOW	LOW	48	BANK	CLEAR	CALM	CLEAR	RIFFLE		MEDIUM	NO VERTICAL DEPTH RECORDED. LAB PARAMETERS TO BE SAMPLED PORTION OF FIELD SHEET WAS ONLY PARTIALLY COMPLETED. DID NOT COMPLETE CHAIN OF CUSTODY FOR ANALYST FOR LAB SAMPLE. SAMPLING FROM BANK, BUT SHOULD BE WADING OR EXTENSION POLE.
SB01	SUCKER BROOK - ASANN94 - VRMP	8/14/2010	7:20 AM	N	BASE FLOW	MEDIUM		CULVERT	CLEAR	CALM	CLEAR	RIFFLE		CLEAR	DID NOT COMPLETE CHAIN OF CUSTODY FOR ANALYST FOR LAB SAMPLE. DID NOT RECORD DO READING/VALUE AFTER CALIBRATION. WADEABLE/1.5 FT BELOW SURFACE
SB01	SUCKER BROOK - ASANN94 - VRMP	8/28/2010		N	BASE FLOW	LOW	51	CULVERT	CLEAR	CALM	CLEAR	RIFFLE		CLEAR	TIME SAMPLE WAS NOT WRITTEN DOWN SO ESTIMATE FROM DO METER CALIBRATION TIME. NO VERTICAL DEPTH RECORDED. LAB PARAMETERS TO BE SAMPLED PORTION OF FIELD SHEET WAS ONLY PARTIALLY COMPLETED. DID NOT COMPLETE CHAIN OF CUSTODY FOR ANALYST FOR LAB SAMPLE.